

# LAPORAN INDIKATOR KINERJA MIL TAHUN 2020



PROGRAM MAGISTER ILMU LINGKUNGAN  
SEKOLAH PASCASARJANA  
UNIVERSITAS DIPONEGORO





**PERFORMANCE REPORT  
(2017-2019)**

**MASTER ENVIRONMENTAL SCIENCE (MES)**

**DIPONEGORO UNIVERSITY**

**SEMARANG**

**2020**

## PROPOSER IDENTITY

College : Diponegoro University  
 Study Program Management Unit : Graduate School  
 Program Type : Master  
 Study Program Name : Master of Environmental Science  
 Address : Imam Bardjo, SH No. 5 Semarang  
 Phone number : (024) 8453635  
 E-mail and Website : mil@live.undip.ac.id and www.mil.undip.ac.id  
 PT Establishment Decree Number<sup>1)</sup> : Government Regulation Number 7 of 1961  
 Date of Decree of Establishment of PT : 15 October 1960  
 Signing Office :  
 SK Establishment of PT : President  
 PS Opening Decree Number<sup>2)</sup> : Decree of the Director General of Higher Education No. 130/Dikti/Kep/2000  
 PS Opening Decree Date : May 1, 2000  
 Signing Office :  
 PS Opening Decree : Directorate General of Higher Education  
 First Year :  
 Accepting Students : year 2000  
 Latest Rating :  
 PS Accreditation : A (EXCELLENT)  
 SK number BAN-PT : SK: 973/SK/BAN PT/Akred/M/IX/2015

### List of Study Programs in the Study Program Management Unit (UPPS)

| No.           | Program Type | Study Program Name               | Study Program Accreditation |                                             |                 | Number of students during TS 4) |
|---------------|--------------|----------------------------------|-----------------------------|---------------------------------------------|-----------------|---------------------------------|
|               |              |                                  | Status/<br>Rank             | No. and Date.<br>SK                         | date<br>Expired |                                 |
| 1             | 2            | 3                                | 4                           | 5                                           | 6               | 7                               |
| 1             | Master       | Master of Environmental Science  | A                           | SK: 973/SK/BAN-PT/Akred/M/IX/2015           | 03-09-2020      | 109                             |
| 2             | Master       | Master in Epidemiology           | A                           | LAM-PTKes No.0088/LAM-PTKes/Akr/Mag/II/2019 | 22-02-2024      | 67                              |
| 3             | Master       | Master in Information Systems    | A                           | 1004/SK/BAN-PT/Akred/M/IV/2018              | 10-04-2023      | 125                             |
| 4             | Master       | Master in Energy                 | B                           | 4891/SK/BAN-PT/Akred/M/XII/2017             | 19-12-2022      | 24                              |
| 5             | Doctoral     | Doctor of Environmental Sciences | A                           | 543/SK/BAN-PT/Akred/D/II/2018               | 20-02-2023      | 75                              |
| <b>amount</b> |              |                                  |                             |                                             |                 | 400                             |

Information:

- 1) Attach a copy of the Decree on the Establishment of a Higher Education.
- 2) Attach a copy of the Decree on the Opening of the Study Program.
- 3) Attach a copy of the latest Study Program Accreditation Decree.

4) Filled with the number of active students in each PS during TS.

**DEVELOPMENT TEAM IDENTITY  
STUDY PROGRAM PERFORMANCE REPORT**

**Name** : Dr. Eng. Maryono, ST., M.T.

**NIDN** : 0011087503

**Position** :

**Charging Date** :

**Signature** :

**Name** : Dr. Ing. Sudarno, S.T., M.Sc.

**NIDN** : 0031017402

**Position** :

**Charging Date** :

**Signature** :

**Name** : Mochamad Arief Budihardjo, S.T., M.Eng.Sc., Ph.D.

**NIDN** : 0030097402

**Position** :

**Charging Date** :

**Signature** :

**Name** : Dr. Jafron Wasiq Hidayat, M.Sc.

**NIDN** : 0025036407

**Position** :

**Charging Date** :

**Signature** :

## MAIN PERFORMANCE INDICATOR FORM

### 1. Governance, Governance, and Cooperation

#### a. Cooperation

Write down the tridharma cooperation in the Study Program Management Unit (UPPS) in the last 3 years by following the format of Table 1 below.

Table 1. Tridharma Cooperation

| No.              | Partner Agency                                                                                                                 | Level *)      |          |              | Title of Cooperation Activity                                                     | Benefits for Accredited PS                                                              | Time and Duration              | Proof of Cooperation | Year of End of Cooperation (YYYY) |
|------------------|--------------------------------------------------------------------------------------------------------------------------------|---------------|----------|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------|----------------------|-----------------------------------|
|                  |                                                                                                                                | International | National | Region/Local |                                                                                   |                                                                                         |                                |                      |                                   |
| 1                | 2                                                                                                                              | 3             | 4        | 5            | 6                                                                                 | 7                                                                                       | 8                              | 9                    | 10                                |
| <b>Education</b> |                                                                                                                                |               |          |              |                                                                                   |                                                                                         |                                |                      |                                   |
| 1                | Australian Nuclear Science and Technology Organization                                                                         | V             |          |              | Forum for Nuclear Cooperation in Asia (FNCA) Workshop on Climate Change           | Increase knowledge about climate change for lecturers and students                      | August 1 2018, 3 months        | SPK                  | 2018                              |
| 2                | The Joint Graduate School of Energy and Environment (JGSEE) King Mongkut's University of Technology Thonburi (KMUTT), Thailand | V             |          |              | Joint degree, visiting staff/student, research                                    | Development of education and research of Environmental and Energy Science study program | 2019                           | MOU                  | still ongoing                     |
| 3                | Postgraduate University of Gorontalo                                                                                           |               | V        |              | Tri Dharma College Development and Cooperation                                    | Development of the Tri Dharma of Higher Education                                       | March 22, 2016, 3 years        | SPK                  | 2019                              |
| 4                | Medan State University Postgraduate                                                                                            |               | V        |              | Tri Dharma College Development and Cooperation                                    | Development of the Tri Dharma of Higher Education                                       | May 17, 2016, 2 years          | SPK                  | 2018                              |
| 5                | Indonesian Environmental Professional Certification Agency (LSP-LHI)                                                           |               | V        |              | Cooperation of Work Competency Certification Services in the Environmental Sector | Environmental competency certification                                                  | January 27 2017, still ongoing | SPK                  | still ongoing                     |

| No. | Partner Agency                                                                    | Level *)      |          |              | Title of Cooperation Activity                                                                                                                                         | Benefits for Accredited PS                    | Time and Duration             | Proof of Cooperation | Year of End of Cooperation (YYYY) |
|-----|-----------------------------------------------------------------------------------|---------------|----------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|----------------------|-----------------------------------|
|     |                                                                                   | International | National | Region/Local |                                                                                                                                                                       |                                               |                               |                      |                                   |
| 1   | 2                                                                                 | 3             | 4        | 5            | 6                                                                                                                                                                     | 7                                             | 8                             | 9                    | 10                                |
| 6   | AKAMIGAS College of Energy and Minerals                                           |               | V        |              | Educational implementation of learning assignments for 1 (one) civil servant of the Ministry of Energy and Mineral Resources in the Postgraduate Masters Program (S2) | Funding for S2 and S3 educational activities  | January 31, 2017, 2 years     | SPK                  | 2019                              |
| 7   | Ministry of Research, Technology and Higher Education                             |               | V        |              | Domestic postgraduate education (master/doctoral) scholarships are ongoing (on going)                                                                                 | Funding for S2 and S3 educational activities  | February 16 2017, 2 semesters | SPK                  | 2018                              |
| 8   | Marine and Fisheries Ministry                                                     |               | V        |              | Administration of postgraduate degree education (study assignments)                                                                                                   | Funding for educational activities            | March 31, 2017, 1 year        | SPK                  | 2018                              |
| 9   | Ministry of Research, Technology and Higher Education                             |               | V        |              | Domestic postgraduate doctoral education (S3) scholarships are ongoing (on going)                                                                                     | Funding for doctoral education activities     | 26 April 2017, 1 semester     | SPK                  | 2017                              |
| 10  | Ministry of Energy and Mineral Resources in the Postgraduate Masters Program (S2) |               | V        |              | Educational implementation of learning assignments for 1 (one) civil servant of the Ministry of Energy and Mineral Resources in the Postgraduate Masters Program (S2) | Funding for postgraduate education activities | 20 June 2017, 2 years         | SPK                  | 2019                              |
| 11  | Ministry of Research, Technology and Higher Education                             |               | V        |              | Domestic postgraduate doctorate (S3) scholarships (BPP-DN) batch 2013 stage 2                                                                                         | Funding for doctoral education activities     | 06 July 2017, 1 semester      | SPK                  | 2017                              |

| No. | Partner Agency                                                                    | Level *)      |          |              | Title of Cooperation Activity                                                                                                                                         | Benefits for Accredited PS                    | Time and Duration             | Proof of Cooperation | Year of End of Cooperation (YYYY) |
|-----|-----------------------------------------------------------------------------------|---------------|----------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|----------------------|-----------------------------------|
|     |                                                                                   | International | National | Region/Local |                                                                                                                                                                       |                                               |                               |                      |                                   |
| 1   | 2                                                                                 | 3             | 4        | 5            | 6                                                                                                                                                                     | 7                                             | 8                             | 9                    | 10                                |
| 12  | Ministry of National Development Planning/BAP PE-NAS                              |               | V        |              | Substantive Education and Training Program (DIKLAT) Environmental Planning in Development                                                                             | Funding for education and training activities | 28 July to 11 August 2017     | SPK                  | 2017                              |
| 13  | Ministry of Energy and Mineral Resources in the Postgraduate Masters Program (S2) |               | V        |              | Educational implementation of learning assignments for 1 (one) civil servant of the Ministry of Energy and Mineral Resources in the Postgraduate Masters Program (S2) | Funding for postgraduate education activities | 07 August 2017, 2 years       | SPK                  | 2019                              |
| 14  | Ministry of National Development Planning/ National Development Planning Agency   |               | V        |              | Domestic Education and Training for Masters Degrees                                                                                                                   | Funding for education and training activities | 11 August 2017, 1 year        | SPK                  | 2017                              |
| 15  | Ministry of Research, Technology and Higher Education                             |               | V        |              | Postgraduate scholarships for outstanding education personnel (PasTi Scholarships)                                                                                    | Funding for educational activities            | 11 September 2017, 2 years    | SPK                  | 2019                              |
| 16  | Ministry of Research, Technology and Higher Education                             |               | V        |              | Domestic postgraduate doctoral education (S3) scholarships (BPP-DN) batch 2014                                                                                        | Funding for doctoral education activities     | 19 September 2017, 1 semester | SPK                  | 2018                              |
| 17  | Ministry of Research, Technology and Higher Education                             |               | V        |              | Domestic postgraduate education (S2/S3) scholarships                                                                                                                  | Funding for S2 and S3 educational activities  | October 18 2017, 1 semester   | SPK                  | 2018                              |
| 18  | Ministry of Research, Technology and Higher Education                             |               | V        |              | Domestic postgraduate doctoral education scholarships (S3) class 2017                                                                                                 | Funding for doctoral education activities     | 22 November 2017, 1 semester  | SPK                  | 2018                              |

| No. | Partner Agency                                                       | Level *)      |          |              | Title of Cooperation Activity                                                                                                                 | Benefits for Accredited PS                   | Time and Duration            | Proof of Cooperation | Year of End of Cooperation (YYYY) |
|-----|----------------------------------------------------------------------|---------------|----------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------|----------------------|-----------------------------------|
|     |                                                                      | International | National | Region/Local |                                                                                                                                               |                                              |                              |                      |                                   |
| 1   | 2                                                                    | 3             | 4        | 5            | 6                                                                                                                                             | 7                                            | 8                            | 9                    | 10                                |
| 19  | Ministry of Research, Technology and Higher Education                |               | V        |              | Domestic postgraduate doctoral education (S3) scholarships (BPP-DN) batch 2014 stage 2                                                        | Funding for doctoral education activities    | 22 November 2017, 1 semester | SPK                  | 2018                              |
| 20  | Ministry of Research, Technology and Higher Education                |               | V        |              | The implementation of domestic postgraduate (master/doctoral) education scholarships is ongoing (ongoing) for the 2018 fiscal year            | Funding for S2 and S3 educational activities | February 13 2018, 1 year     | SPK                  | 2019                              |
| 21  | Ministry of Research, Technology and Higher Education                |               | V        |              | Postgraduate scholarships for outstanding education personnel (PasTi Scholarships)                                                            | Funding for educational activities           | March 1 2018, 1 year         | SPK                  | 2019                              |
| 22  | Ministry of Research, Technology and Higher Education                |               | V        |              | Doctoral Program (S3) Study Extension Assistance for Domestic Postgraduate Education Scholarship Recipients (BPP-DN) Class of 2014 Semester 8 | Funding for doctoral education activities    | April 12 2018, 1 semester    | SPK                  | 2018                              |
| 23  | Indonesian Environmental Professional Certification Agency (LSP-LHI) |               | V        |              | Cooperation of Work Competency Certification Services in the Environmental Sector                                                             | Environmental competency certification       | April 16 2018, 5 years       | SPK                  | 2023                              |
| 24  | Ministry of Research, Technology and Higher Education                |               | V        |              | Distribution of 1 semester scholarship funds for domestic doctoral or doctoral program students for the 2018 fiscal year                      | Funding for doctoral education activities    | 23 April 2018, 1 semester    | SPK                  | 2018                              |

| No. | Partner Agency                                        | Level *)      |          |              | Title of Cooperation Activity                                                                                                   | Benefits for Accredited PS                    | Time and Duration             | Proof of Cooperation | Year of End of Cooperation (YYYY) |
|-----|-------------------------------------------------------|---------------|----------|--------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|----------------------|-----------------------------------|
|     |                                                       | International | National | Region/Local |                                                                                                                                 |                                               |                               |                      |                                   |
| 1   | 2                                                     | 3             | 4        | 5            | 6                                                                                                                               | 7                                             | 8                             | 9                    | 10                                |
| 25  | Ministry of National Development Planning/BAP PENAS   |               | V        |              | Environmental Planning Education and Training Program (DIKLAT) in Development                                                   | Funding for education and training activities | 27 July 2018, still ongoing   | SPK                  | still ongoing                     |
| 26  | Ministry of Research, Technology and Higher Education |               | V        |              | Postgraduate scholarships for outstanding education personnel (PasTi Scholarships) for the 2018 fiscal year                     | Funding for educational activities            | 24 August 2018, 1 semester    | SPK                  | 2019                              |
| 27  | Ministry of Research, Technology and Higher Education |               | V        |              | Implementation of the New State Higher Education (PTNB) affirmation scholarship for the 2018 fiscal year anggaran               | Funding for educational activities            | September 13 2018, 1 semester | SPK                  | 2019                              |
| 28  | Ministry of Research, Technology and Higher Education |               | V        |              | Extension of study for doctoral program (S3) for recipients of domestic postgraduate education scholarships (BPP-DN) batch 2015 | Funding for doctoral education activities     | 24 September 2018, 1 semester | SPK                  | 2019                              |
| 29  | Ministry of Research, Technology and Higher Education |               | V        |              | Organizing master's education scholarships to doctorates for superior undergraduates (PMDSU) Batch 4 for the 2018 fiscal year   | Funding for educational activities            | 27 September 2018, 1 semester | SPK                  | 2019                              |
| 30  | Ministry of Research, Technology and Higher Education |               | V        |              | 1 semester scholarship for domestic doctoral program (S3) students for the 2018 fiscal year                                     | Funding for doctoral education activities     | October 11 2018, 1 semester   | SPK                  | 2019                              |
| 31  | Ministry of Research, Technology                      |               | V        |              | New State Universities Affirmation Scholarship                                                                                  | Funding for educational activities            | November 13                   | SPK                  | 2019                              |

| No. | Partner Agency                                        | Level *)      |          |              | Title of Cooperation Activity                                                                                                                    | Benefits for Accredited PS                    | Time and Duration             | Proof of Cooperation | Year of End of Cooperation (YYYY) |
|-----|-------------------------------------------------------|---------------|----------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|----------------------|-----------------------------------|
|     |                                                       | International | National | Region/Local |                                                                                                                                                  |                                               |                               |                      |                                   |
| 1   | 2                                                     | 3             | 4        | 5            | 6                                                                                                                                                | 7                                             | 8                             | 9                    | 10                                |
|     | and Higher Education                                  |               |          |              | (PTNB) 1 semester                                                                                                                                |                                               | 2018, 1 semester              |                      |                                   |
| 32  | Ministry of Research, Technology and Higher Education |               | V        |              | Domestic postgraduate (master/doctoral) education scholarships are ongoing (on going) for the 2019 fiscal year                                   | Funding for educational activities            | 23 January 2019, 2 semesters  | SPK                  | 2019                              |
| 33  | Ministry of Research, Technology and Higher Education |               | V        |              | Graduate scholarships for outstanding education staff (PasTi Scholarships) for student employees are ongoing (on going) for the 2019 fiscal year | Funding for educational activities            | February 8, 2019, 1 semester  | SPK                  | 2019                              |
| 34  | Ministry of Research, Technology and Higher Education |               | V        |              | Extended scholarship for doctoral/S3 program class 2015 8th semester                                                                             | Funding for doctoral education activities     | April 1 2019, 1 semester      | SPK                  | 2019                              |
| 35  | Ministry of Research, Technology and Higher Education |               | V        |              | 1 semester scholarship fund assistance for domestic doctoral/S3 program students for the 2019 fiscal year                                        | Funding for doctoral education activities     | 15 July 2019, 1 semester      | SPK                  | 2019                              |
| 36  | Ministry of National Development Planning/BAP PENAS   |               | V        |              | Environmental Planning Education and Training Program (DIKLAT) in Development                                                                    | Funding for education and training activities | 19 July 2019, still ongoing   | SPK                  | still ongoing                     |
| 37  | Ministry of National Development Planning/BAP PENAS   |               | V        |              | Domestic Education and Training for Masters Degrees                                                                                              | Funding for education and training activities | 9 August 2019, 1 year         | SPK                  | 2020                              |
| 38  | Ministry of Research, Technology and Higher Education |               | V        |              | Domestic postgraduate education scholarships (S2/S3) for the                                                                                     | Funding for S2/S3 educational activities      | 11 September 2019, 1 semester | SPK                  | 2020                              |

| No.             | Partner Agency                                        | Level *)      |          |              | Title of Cooperation Activity                                                                                       | Benefits for Accredited PS                        | Time and Duration             | Proof of Cooperation | Year of End of Cooperation (YYYY) |
|-----------------|-------------------------------------------------------|---------------|----------|--------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------|----------------------|-----------------------------------|
|                 |                                                       | International | National | Region/Local |                                                                                                                     |                                                   |                               |                      |                                   |
| 1               | 2                                                     | 3             | 4        | 5            | 6                                                                                                                   | 7                                                 | 8                             | 9                    | 10                                |
|                 |                                                       |               |          |              | 2019 fiscal year                                                                                                    |                                                   |                               |                      |                                   |
| 39              | Ministry of Research, Technology and Higher Education |               | V        |              | Organizing master's education scholarships to doctorates for superior undergraduates (PMDSU)                        | Funding for educational activities                | 11 September 2019, 1 semester | SPK                  | 2020                              |
| 40              | Ministry of Research, Technology and Higher Education |               | V        |              | Organizing master's education scholarships to doctorates for superior undergraduates (PMDSU) batch V in 2019        | Funding for educational activities                | 11 September 2019, 1 semester | SPK                  | 2020                              |
| 41              | Ministry of Research, Technology and Higher Education |               | V        |              | Doctoral program extension scholarships (S3) class 2016 and scholarship funding assistance for the 2019 fiscal year | Funding for doctoral education (S3) activities    | 17 October 2019, 1 semester   | SPK                  | 2020                              |
| Σ               | 41                                                    | 2             | 39       | 0            |                                                                                                                     |                                                   |                               |                      |                                   |
| <b>Research</b> |                                                       |               |          |              |                                                                                                                     |                                                   |                               |                      |                                   |
| 1               | PT H&M                                                | V             |          |              | Energy Research                                                                                                     | Energy research development                       | March 31, 2017, 6 months      | SPK                  | 2017                              |
| 2               | PT H&M                                                | V             |          |              | Making Feasibility Study of Biomass Energy Utilization in Textile and Garment Industry                              | Energy research development                       | February 14 2018, 6 months    | SPK                  | 2018                              |
| 3               | Postgraduate University of Gorontalo                  |               | V        |              | Tri Dharma College Development and Cooperation                                                                      | Development of the Tri Dharma of Higher Education | March 22, 2016, 3 years       | SPK                  | 2019                              |

| No. | Partner Agency                         | Level *)      |          |              | Title of Cooperation Activity                                                                                             | Benefits for Accredited PS                           | Time and Duration          | Proof of Cooperation | Year of End of Cooperation (YYYY) |
|-----|----------------------------------------|---------------|----------|--------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------|----------------------|-----------------------------------|
|     |                                        | International | National | Region/Local |                                                                                                                           |                                                      |                            |                      |                                   |
| 1   | 2                                      | 3             | 4        | 5            | 6                                                                                                                         | 7                                                    | 8                          | 9                    | 10                                |
| 4   | Medan State University Postgraduate    |               | V        |              | Tri Dharma College Development and Cooperation                                                                            | Development of the Tri Dharma of Higher Education    | May 17, 2016, 2 years      | SPK                  | 2018                              |
| 5   | Boyolali Regency Environmental Service |               | V        |              | Preparation of Supporting Documents for the Implementation of Strategic Environmental Studies (KLHS) in Boyolali District | KLHS research development                            | 03 April 2017, 60 days     | SPK                  | 2017                              |
| 6   | Boyolali Regency Environmental Service |               | V        |              | Preparation of Environmental Carrying Capacity Based on Ecosystem Services for Boyolali Regency in 2017                   | Environmental carrying capacity research development | 15 May 2017, 60 days       | SPK                  | 2017                              |
| 7   | Boyolali Regency Environmental Service |               | V        |              | Inventory of Greenhouse Gases on Climate Change Impact Management Activities in Boyolali Regency in 2017                  | GHG research development                             | June 1 2017, 90 days       | SPK                  | 2017                              |
| 8   | Boyolali Regency Environmental Service |               | V        |              | Preparation of the Master Plan for Boyolali Regency Green Open Spaces in 2017                                             | RTH research development                             | 15 September 2017, 90 days | SPK                  | 2017                              |
| 9   | Boyolali Regency Environmental Service |               | V        |              | Preparation of RAD for GHG Emission Reduction in Boyolali District Kabupaten                                              | GHG research development                             | October 16, 2017, 40 days  | SPK                  | 2017                              |
| 10  | Boyolali Regency Environmental Service |               | V        |              | Preparation of Technical Planning and Waste Management Documents (PTMP) Boyolali Regency 2018-2028                        | Waste research development                           | 26 April 2018, 180 days    | SPK                  | 2018                              |

| No.                         | Partner Agency                                            | Level *)      |          |              | Title of Cooperation Activity                                                | Benefits for Accredited PS                                   | Time and Duration          | Proof of Cooperation            | Year of End of Cooperation (YYYY) |
|-----------------------------|-----------------------------------------------------------|---------------|----------|--------------|------------------------------------------------------------------------------|--------------------------------------------------------------|----------------------------|---------------------------------|-----------------------------------|
|                             |                                                           | International | National | Region/Local |                                                                              |                                                              |                            |                                 |                                   |
| 1                           | 2                                                         | 3             | 4        | 5            | 6                                                                            | 7                                                            | 8                          | 9                               | 10                                |
| 11                          | Boyolali Regency Environmental Service                    |               | V        |              | Inventory of Greenhouse Gases (GHG) in Boyolali Kabupaten Regency            | Greenhouse Gas research development                          | June 4 2018, 148 days      | SPK                             | 2018                              |
| 12                          | PT Pupuk Kujang Cikampek                                  |               | V        |              | Implementation of Life Cycle Analysis (LCA) Audit                            | LCA research development                                     | August 1 2019, 6 months    | SPK                             | 2020                              |
| 13                          | Central Java Provincial Government                        |               | V        |              | Tri Dharma College Development and Cooperation                               | Implementation of research and community service             | August 1 2019, 5 months    | SK                              | 2019                              |
| 14                          | Syiah Kuala University                                    |               | V        |              | Tri Dharma College Development and Cooperation                               | Implementation of education, research, and community service | November 8, 2019,          | SPK                             | Still ongoing                     |
| 15                          | Haluoleo University                                       |               | V        |              | Tri Dharma College Development and Cooperation                               | Implementation of education, research, and community service | November 15, 2019, 5 years | Memo randu m of Under standi ng | 2024                              |
| Σ                           |                                                           | 2             | 13       | 0            |                                                                              |                                                              |                            |                                 |                                   |
| <b>Community dedication</b> |                                                           |               |          |              |                                                                              |                                                              |                            |                                 |                                   |
| 1                           | Postgraduate University of Gorontalo                      |               | V        |              | Tri Dharma College Development and Cooperation                               | Development of the Tri Dharma of Higher Education            | March 22, 2016, 3 years    | SPK                             | 2019                              |
| 2                           | Provincial Office of the Ministry of Law and Human Rights |               | V        |              | Higher Education Service in Improving Technology-Based Correctional Services | Development of the Tri Dharma of Higher Education            | 27 April 2016, 3 years     | SPK                             | 2019                              |
| 3                           | Medan State University Postgraduate                       |               | V        |              | Tri Dharma College Development and Cooperation                               | Development of the Tri Dharma of Higher Education            | May 17, 2016, 2 years      | SPK                             | 2018                              |

| No. | Partner Agency                        | Level *)      |          |              | Title of Cooperation Activity                                                 | Benefits for Accredited PS                                                    | Time and Duration          | Proof of Cooperation        | Year of End of Cooperation (YYYY) |
|-----|---------------------------------------|---------------|----------|--------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------|-----------------------------|-----------------------------------|
|     |                                       | International | National | Region/Local |                                                                               |                                                                               |                            |                             |                                   |
| 1   | 2                                     | 3             | 4        | 5            | 6                                                                             | 7                                                                             | 8                          | 9                           | 10                                |
| 4   | Boyolali Regency Environmental Agency |               | V        |              | Development, Utilization of Science and Technology, and Community Empowerment | Development, utilization of science and technology, and community empowerment | 09 December 2016, 5 years  | Memorandum of Understanding | 2021                              |
| 5   | Syah Kuala University                 |               | V        |              | Tri Dharma College Development and Cooperation                                | Implementation of education, research, and community service                  | November 8, 2019,          | SPK                         | Still ongoing                     |
| 6   | Haluoleo University                   |               | V        |              | Tri Dharma College Development and Cooperation                                | Implementation of education, research, and community service                  | November 15, 2019, 5 years | Memorandum of Understanding | 2024                              |
| Σ   |                                       | 0             | 6        | 0            |                                                                               |                                                                               |                            |                             |                                   |

Information:

- 1) Put a V mark in the appropriate column.
- 2) Filled with the title of the cooperative activity that has been implemented, involves resources and provides benefits for the accredited Study Program.
- 3) Evidence of cooperation can be in the form of a Letter of Assignment, Cooperation Agreement (SPK), evidence of implementation (reports, results of cooperation, cooperation outcomes), or other relevant evidence. Documents of Memorandum of Understanding (MoU), Memorandum of Agreement (MoA), or similar documents that cover the implementation of cooperation, cannot be used as evidence of the realization of cooperation.

## 2. College student

### a. Quality of Student Input

Write down the capacity data, the number of prospective students (registrants and participants who passed the selection), the number of new students (regular and transfer) and the number of active students (regular and transfer) in the last 5 years in the accredited Study Program by following the format of Table 2.a the following.

Table 2.a Student Selection

| Academic year | Capacity | Number of Prospective Students |                | Number of New Students |          | Number of Active Students |          |
|---------------|----------|--------------------------------|----------------|------------------------|----------|---------------------------|----------|
|               |          | Registrant                     | Pass Selection | Regular                | Transfer | Regular                   | Transfer |
| 1             | 2        | 3                              | 4              | 5                      | 6        | 7                         | 8        |
| 2015          | 50       | 51                             | 42             | 42                     | -        | 149                       | -        |
| 2016          | 50       | 60                             | 55             | 55                     | -        | 149                       | -        |
| 2017          | 50       | 53                             | 22             | 22                     | -        | 113                       | -        |
| 2018          | 50       | 52                             | 36             | 36                     | -        | 122                       | -        |
| 2019          | 50       | 58                             | 34             | 34                     | -        | 109                       | -        |
| amount        |          | 274                            | 189            | 189                    | 0        | 109                       |          |

Information:

TS = Last full academic year at the time of submitting the accreditation proposal.

## b. Foreign student

The following table 2.b is filled out by the proposer from the Study Program in the Applied Bachelor/Bachelor/Master/Applied Master/Doctoral/Applied Doctoral program.

Write down the number of foreign students registered in all study programs at UPPS in the last 3 years by following the format of Table 2.b below.

Table 2.b Foreign Students (Foreign Students)

| No     | Study program                    | Number of Active Students |      |      | Number of Full Time Foreign Students (Full Time) |      |      | Number of Part Time Foreign Students (Part Time) |      |      |
|--------|----------------------------------|---------------------------|------|------|--------------------------------------------------|------|------|--------------------------------------------------|------|------|
|        |                                  | 2017                      | 2018 | 2019 | 2017                                             | 2018 | 2019 | 2017                                             | 2018 | 2019 |
| 1      | 2                                | 3                         | 4    | 5    | 6                                                | 7    | 8    | 9                                                | 10   | 11   |
| 1      | Master of Environmental Science  | 113                       | 122  | 109  | 2                                                | 2    | 3    | -                                                | -    | 2    |
| 2      | Master of Epidemiology           | 66                        | 79   | 67   | 0                                                | 1    | 0    | -                                                | -    | -    |
| 3      | Master of Information Systems    | 112                       | 129  | 125  | 0                                                | 1    | 0    | -                                                | -    | -    |
| 4      | Master of Energy                 | 24                        | 26   | 24   | 0                                                | 0    | 0    | -                                                | -    | -    |
| 5      | Doctor of Environmental Sciences | 63                        | 54   | 75   | 2                                                | 2    | 1    | -                                                | -    | -    |
| amount |                                  | 378                       | 410  | 400  | 4                                                | 6    | 4    | -                                                | -    | -    |

Information:

Foreign students can be enrolled in an education program on a full-time or part-time basis. Part-time foreign students are students who are registered in the Study Program to participate in student exchange activities, credit earning, or similar activities that are relevant.

### 3. Human Resources

#### a. Lecturer Profile

Write down the data of Permanent Lecturers of Higher Education assigned as lecturers in the Accredited Study Program (DTPS) at the time of TS by following the format of Table 3.a.1 below.

Table 3.a.1 Permanent Lecturers of Higher Education

| No. | Lecturer Name                          | NIDN/<br>NIDK     | Postgraduate Education                              |                                                                              | Areas of expertise                                                                                                                                                                      | Compatibility with PS Core Competencies | Academic Position      | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                                                                                                            | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                         |
|-----|----------------------------------------|-------------------|-----------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                        |                   | Masters/ Applied Masters/ Specialist                | Doctoral/ Applied Doctor/ Specialist                                         |                                                                                                                                                                                         |                                         |                        |                                   |                                                  |                                                                                                                                                                                                            |                                                                         |                                                                                                                                                                                                    |
| 1   | 2                                      | 3                 | 4                                                   |                                                                              | 5                                                                                                                                                                                       | 6                                       | 7                      | 8                                 | 9                                                | 10                                                                                                                                                                                                         | 11                                                                      | 12                                                                                                                                                                                                 |
| 1   | Prof. Drs. Sudharto P Hadi, MES, Ph.D. | <u>0009035404</u> | S2 : Environmental studies, York University, Canada | S3 : Community and Regional Planning, University of British Columbia, Canada | <ul style="list-style-type: none"> <li>• Environmental policy</li> <li>• Environmental planning and community empowerment</li> <li>• Environmental mediation and negotiation</li> </ul> | <div>√</div> <div>√</div> <div>√</div>  | Professor (Professor ) | 08100801348                       |                                                  | <ul style="list-style-type: none"> <li>• Environmental planning theories</li> <li>• Philosophy of science and methodology</li> <li>• Social dimensions of the environment and natural resources</li> </ul> | <div>√</div> <div>√</div> <div>√</div>                                  | <ul style="list-style-type: none"> <li>• Environmental management</li> <li>• Environmental planning</li> <li>• EIA</li> <li>• Human Resource Management</li> <li>• Environmental ethics</li> </ul> |

| No. | Lecturer Name               | NIDN/ NIDK        | Postgraduate Education                                                        |                                                                              | Areas of expertise                                                                                                                                                                                         | Compatibility with PS Core Competencies  | Academic Position      | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                                                                                                                                | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                             |
|-----|-----------------------------|-------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                             |                   | Masters/ Applied Masters/ Specialist                                          | Doctoral/ Applied Doctor/ Specialist                                         |                                                                                                                                                                                                            |                                          |                        |                                   |                                                  |                                                                                                                                                                                                                                |                                                                         |                                                                                                                                                                                                        |
| 1   | 2                           | 3                 | 4                                                                             |                                                                              | 5                                                                                                                                                                                                          | 6                                        | 7                      | 8                                 | 9                                                | 10                                                                                                                                                                                                                             | 11                                                                      | 12                                                                                                                                                                                                     |
|     |                             |                   |                                                                               |                                                                              |                                                                                                                                                                                                            |                                          |                        |                                   |                                                  |                                                                                                                                                                                                                                |                                                                         | <ul style="list-style-type: none"> <li>Development policy analysis</li> <li>Company environmental analysis</li> <li>Environmental issues in development</li> </ul>                                     |
| 2   | Prof. Dr. Ir. Purwanto. DEA | <u>0028126103</u> | S2 : Chemical Process Technology , ENSIGC-INPT University of Toulouse, France | S3 : Chemical Process Technology, ENSIGC-INPT University of Toulouse, France | <ul style="list-style-type: none"> <li>Clean Technology</li> <li>Eco-efficiency and sustainable development</li> <li>Environmental and Natural Resources Modeling</li> <li>Solid waste and B3 .</li> </ul> | ✓<br><br><br>✓<br><br><br>✓<br><br><br>✓ | Professor (Professor ) | 09110080184                       |                                                  | <ul style="list-style-type: none"> <li>Computer applications and environmental modeling</li> <li>Mass transfer and transformation</li> <li>System analysis and environmental modeling</li> <li>Pollution and damage</li> </ul> | ✓<br><br><br>✓<br><br><br>✓<br><br><br>✓                                | <ul style="list-style-type: none"> <li>Catalyst technology</li> <li>Environmental audit and management system</li> <li>Energy planning and policy</li> <li>Hospital occupational safety and</li> </ul> |

| No. | Lecturer Name                          | NIDN/ NIDK        | Postgraduate Education                                                            |                                                           | Areas of expertise                                  | Compatibility with PS Core Competencies | Academic Position      | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                      | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                    |
|-----|----------------------------------------|-------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------|-----------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                        |                   | Masters/ Applied Masters/ Specialist                                              | Doctoral/ Applied Doctor/ Specialist                      |                                                     |                                         |                        |                                   |                                                  |                                                                                                                      |                                                                         |                                                                                                                                               |
| 1   | 2                                      | 3                 | 4                                                                                 |                                                           | 5                                                   | 6                                       | 7                      | 8                                 | 9                                                | 10                                                                                                                   | 11                                                                      | 12                                                                                                                                            |
|     |                                        |                   |                                                                                   |                                                           | management<br><br>• Environmental management system | √                                       |                        |                                   |                                                  | control concepts                                                                                                     |                                                                         | health management                                                                                                                             |
| 3   | Prof. Dr. Ir. Azis Nur Bambang, MS     | <u>0018095203</u> | S2 : Natural Resources and Environmental Management, Bogor Agricultural Institute | S3 : Economics of Fishery Resources , ENSAR Rennes France | • Environmental economics<br><br>• Water resources  | √<br><br>√                              | Professor (Professor ) | 08100801406                       |                                                  | Environmental economics and natural resources                                                                        | √                                                                       | • Introduction to economics<br><br>• Sociology of coastal communities                                                                         |
| 4   | Prof. Dr. Ir. Sutrisno Anggoro, M. Si. | <u>011125205</u>  | S2 : Aquatic Science, Bogor Agricultural University                               | S3 : Aquatic Science, Bogor Agricultural University       | • Fishery<br><br>• waters                           | √<br><br>√                              | Professor (Professor ) | 08100801355                       |                                                  | • Hydroclimate-ology<br><br>• Management of coastal and marine areas<br>• System analysis and environmental modeling | √<br><br>√<br><br>√                                                     | • Coastal and marine spatial planning<br><br>• Conservation of aquatic resources<br><br>• Impact of contamination on organisms and physiology |



| No. | Lecturer Name                              | NIDN/ NIDK       | Postgraduate Education                                   |                                                          | Areas of expertise                                                                                                | Compatibility with PS Core Competencies | Academic Position      | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                                   | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                          |
|-----|--------------------------------------------|------------------|----------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                            |                  | Masters/ Applied Masters/ Specialist                     | Doctoral/ Applied Doctor/ Specialist                     |                                                                                                                   |                                         |                        |                                   |                                                  |                                                                                                                                   |                                                                         |                                                                                                                                                                                     |
| 1   | 2                                          | 3                | 4                                                        |                                                          | 5                                                                                                                 | 6                                       | 7                      | 8                                 | 9                                                | 10                                                                                                                                | 11                                                                      | 12                                                                                                                                                                                  |
|     |                                            |                  |                                                          |                                                          |                                                                                                                   |                                         |                        |                                   |                                                  |                                                                                                                                   |                                                                         | <ul style="list-style-type: none"> <li>• Protist biology</li> <li>• Ichthyology</li> <li>• Biomonitoring</li> </ul>                                                                 |
|     |                                            |                  |                                                          |                                                          |                                                                                                                   |                                         |                        |                                   |                                                  |                                                                                                                                   |                                                                         | <ul style="list-style-type: none"> <li>• Bioremediation</li> <li>• Micropaleontology</li> <li>• Aquatic ecology</li> <li>• Biomonitoring</li> <li>• Research methodology</li> </ul> |
| 6   | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D. | <u>001416702</u> | S2 : Chemical Engineering, Universiti Teknologi Malaysia | S3 : Chemical Engineering, Universiti Teknologi Malaysia | <ul style="list-style-type: none"> <li>• Catalyst</li> <li>• Technology and energy management planning</li> </ul> | <div>√</div> <div>√</div>               | Professor (Professor ) | 101100809732                      |                                                  | <ul style="list-style-type: none"> <li>• Environmental Management</li> <li>• Technology and energy management planning</li> </ul> | <div>√</div> <div>√</div>                                               | <ul style="list-style-type: none"> <li>• Chemical reaction technique</li> <li>• Reactor</li> </ul>                                                                                  |

| No. | Lecturer Name                         | NIDN/ NIDK        | Postgraduate Education               |                                                                    | Areas of expertise                                                                                                                                                                                                                            | Compatibility with PS Core Competencies | Academic Position      | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS  | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                           |
|-----|---------------------------------------|-------------------|--------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|----------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                       |                   | Masters/ Applied Masters/ Specialist | Doctoral/ Applied Doctor/ Specialist                               |                                                                                                                                                                                                                                               |                                         |                        |                                   |                                                  |                                  |                                                                         |                                                                                                                                                                                                                                      |
| 1   | 2                                     | 3                 | 4                                    |                                                                    | 5                                                                                                                                                                                                                                             | 6                                       | 7                      | 8                                 | 9                                                | 10                               | 11                                                                      | 12                                                                                                                                                                                                                                   |
|     |                                       |                   |                                      |                                                                    |                                                                                                                                                                                                                                               |                                         |                        |                                   |                                                  |                                  |                                                                         | <ul style="list-style-type: none"> <li>Advanced chemical reaction technique</li> <li>Ecology and environmental change</li> <li>Catalyst technology</li> <li>Thermodynamics</li> <li>Energy planning and policy</li> </ul>            |
| 7   | Prof. Dr. rer. nat. Imam Buchori, S.T | <u>0023117006</u> | S2 : University of Vechta, Germany   | S3 : Geomatics for Spatial Planning, University of Vechta, Germany | <ul style="list-style-type: none"> <li>Spatial and environment</li> <li>Geomatics of Spatial Planning</li> <li>Geomatics for Sustainable development</li> <li>Location analysis for public facilities</li> <li>Disaster Mitigation</li> </ul> | √<br><br>√<br><br>√<br><br>√<br><br>√   | Professor (Professor ) | 101100809704                      |                                                  | Spatial planning and environment | √                                                                       | <ul style="list-style-type: none"> <li>Geographic information system</li> <li>Planning information system</li> <li>Transportation planning</li> <li>Research methodology</li> <li>Planning studio (Spatial concentration)</li> </ul> |

| No. | Lecturer Name                | NIDN/ NIDK        | Postgraduate Education                                     |                                                          | Areas of expertise                                                        | Compatibility with PS Core Competencies | Academic Position      | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                  | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                                                                         |
|-----|------------------------------|-------------------|------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                              |                   | Masters/ Applied Masters/ Specialist                       | Doctoral/ Applied Doctor/ Specialist                     |                                                                           |                                         |                        |                                   |                                                  |                                                  |                                                                         |                                                                                                                                                                                                                                                                                                                                                    |
| 1   | 2                            | 3                 | 4                                                          |                                                          | 5                                                                         | 6                                       | 7                      | 8                                 | 9                                                | 10                                               | 11                                                                      | 12                                                                                                                                                                                                                                                                                                                                                 |
|     |                              |                   |                                                            |                                                          | <ul style="list-style-type: none"> <li>Transportation modeling</li> </ul> | √                                       |                        |                                   |                                                  |                                                  |                                                                         | <ul style="list-style-type: none"> <li>Development planning information system studio</li> <li>Disaster mitigation</li> </ul>                                                                                                                                                                                                                      |
| 8   | Prof. Dr. Istadi, S.T., M.T. | <u>0001037106</u> | S2 : Chemical Engineering, Bandung Institute of Technology | S3 : Chemical Engineering, Universiti Teknologi Malaysia | Catalyst and plasma                                                       | √                                       | Professor (Professor ) | 101100809736                      |                                                  | Computer applications and environmental modeling | √                                                                       | <ul style="list-style-type: none"> <li>Advanced chemical reaction technique</li> <li>Research data processing techniques</li> <li>Chemical product and process design</li> <li>Gas processing technology</li> <li>Catalyst technology</li> <li>chemical engineering principle II</li> <li>Inorganic chemistry</li> <li>Thermodynamics 1</li> </ul> |

| No. | Lecturer Name                                 | NIDN/ NIDK        | Postgraduate Education                             |                                               | Areas of expertise    | Compatibility with PS Core Competencies | Academic Position      | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                  | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----|-----------------------------------------------|-------------------|----------------------------------------------------|-----------------------------------------------|-----------------------|-----------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                               |                   | Masters/ Applied Masters/ Specialist               | Doctoral/ Applied Doctor/ Specialist          |                       |                                         |                        |                                   |                                                  |                                                  |                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1   | 2                                             | 3                 | 4                                                  |                                               | 5                     | 6                                       | 7                      | 8                                 | 9                                                | 10                                               | 11                                                                      | 12                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 9   | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Sc. | <u>0010087407</u> | S2 : Oceanography, Bandung Institute of Technology | S3 : Civil Engineering, Diponegoro University | Oceanographic Physics | √                                       | Professor (Professor ) | 12100100802934                    |                                                  | Infrastructure development and environmental GIS | √                                                                       | <ul style="list-style-type: none"> <li>• Marine &amp; oceanic alternative energy</li> <li>• Oceanographic programming</li> <li>• Coastal and marine disaster mitigation</li> <li>• Marine layout</li> <li>• Spatial planning for coastal and marine areas</li> <li>• Oceanographic dynamics</li> <li>• colloquium</li> <li>• Coastal resource modeling</li> <li>• Beach hydraulics</li> <li>• Oceanographic engineering</li> </ul> |

| No. | Lecturer Name                                      | NIDN/ NIDK        | Postgraduate Education                                     |                                                                | Areas of expertise                                                                                                                     | Compatibility with PS Core Competencies | Academic Position      | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                  | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                                                                                   |
|-----|----------------------------------------------------|-------------------|------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                                    |                   | Masters/ Applied Masters/ Specialist                       | Doctoral/ Applied Doctor/ Specialist                           |                                                                                                                                        |                                         |                        |                                   |                                                  |                                                                                                  |                                                                         |                                                                                                                                                                                                                                                                                                                                                              |
| 1   | 2                                                  | 3                 | 4                                                          |                                                                | 5                                                                                                                                      | 6                                       | 7                      | 8                                 | 9                                                | 10                                                                                               | 11                                                                      | 12                                                                                                                                                                                                                                                                                                                                                           |
|     |                                                    |                   |                                                            |                                                                |                                                                                                                                        |                                         |                        |                                   |                                                  |                                                                                                  |                                                                         | <ul style="list-style-type: none"> <li>Coastal zone zoning</li> </ul>                                                                                                                                                                                                                                                                                        |
| 10  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | <u>0029057502</u> | S2 : Chemical Engineering, Bandung Institute of Technology | S3 : Chemical Engineering, Universitat Duisburg-Essen, Germany | <ul style="list-style-type: none"> <li>Environmental management</li> <li>Materials engineering</li> <li>Membrane technology</li> </ul> | ✓<br><br>✓<br><br>✓                     | Professor (Professor ) | 101100809734                      |                                                  | <ul style="list-style-type: none"> <li>Philosophy of science and research methodology</li> </ul> | ✓                                                                       | <ul style="list-style-type: none"> <li>The phenomenon of displacement</li> <li>Membrane technology</li> <li>Scientific writing and presentation techniques</li> <li>Engineering materials science</li> <li>Polymer technology</li> <li>Advanced composite and material technology</li> <li>Separation process</li> <li>Waste treatment technology</li> </ul> |

| No. | Lecturer Name                    | NIDN/ NIDK        | Postgraduate Education                                 |                                                         | Areas of expertise                                                                                          | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                                                                                   | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                      |
|-----|----------------------------------|-------------------|--------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                  |                   | Masters/ Applied Masters/ Specialist                   | Doctoral/ Applied Doctor/ Specialist                    |                                                                                                             |                                         |                   |                                   |                                                  |                                                                                                                                                                                   |                                                                         |                                                                                                                                                                                                                 |
| 1   | 2                                | 3                 | 4                                                      |                                                         | 5                                                                                                           | 6                                       | 7                 | 8                                 | 9                                                | 10                                                                                                                                                                                | 11                                                                      | 12                                                                                                                                                                                                              |
| 11  | Prof. Dr. Hadiyanto, S.T., M.Sc. | <u>0028107503</u> | S2 : Food and Bioprocess, Wageningen Univ. Netherlands | S3 : Chemical Engineering, Wageningen Univ. Netherlands | <ul style="list-style-type: none"> <li>Food and bioprocess</li> <li>Chemical engineering</li> </ul>         | <div>√</div> <div>√</div>               | Professor         | 11100100804269                    |                                                  | <ul style="list-style-type: none"> <li>Environmental system analysis</li> <li>Philosophy of science and research methodology</li> <li>Mass transfer and transformation</li> </ul> | <div>√</div> <div>√</div> <div>√</div>                                  | <ul style="list-style-type: none"> <li>Basics of bioprocess</li> <li>Chemical Engineering Mathematics</li> <li>Process control</li> </ul>                                                                       |
| 12  | Dr. Dra. Sunarsih, M.Si.         | <u>0001095808</u> | S2 : University of Indonesia                           | S3 : Universitas Brawijaya                              | <ul style="list-style-type: none"> <li>Environmental statistics</li> <li>System dynamic analysis</li> </ul> | <div>√</div> <div>√</div>               | Head Lecturer     | 091100809387                      |                                                  | <ul style="list-style-type: none"> <li>Environmental statistics</li> <li>Environmental system analysis</li> </ul>                                                                 | <div>√</div> <div>√</div>                                               | <ul style="list-style-type: none"> <li>Statistical Method</li> <li>Risk modeling</li> <li>Advanced ecological model</li> <li>Statistics</li> <li>dynamic system Sistem</li> <li>Research methodology</li> </ul> |

| No. | Lecturer Name         | NIDN/ NIDK        | Postgraduate Education               |                                      | Areas of expertise                                                                                                                                                                                                | Compatibility with PS Core Competencies  | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS           | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                                            |
|-----|-----------------------|-------------------|--------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                       |                   | Masters/ Applied Masters/ Specialist | Doctoral/ Applied Doctor/ Specialist |                                                                                                                                                                                                                   |                                          |                   |                                   |                                                  |                                           |                                                                         |                                                                                                                                                                                                                                                                                                                       |
| 1   | 2                     | 3                 | 4                                    |                                      | 5                                                                                                                                                                                                                 | 6                                        | 7                 | 8                                 | 9                                                | 10                                        | 11                                                                      | 12                                                                                                                                                                                                                                                                                                                    |
|     |                       |                   |                                      |                                      |                                                                                                                                                                                                                   |                                          |                   |                                   |                                                  |                                           |                                                                         | <ul style="list-style-type: none"> <li>Stochastic modeling</li> <li>Mathematical modeling</li> </ul>                                                                                                                                                                                                                  |
| 13  | Dr. Ir. Hermawan, DEA | <u>0023026003</u> | S2 : Electrical Power, ECL France    | S3 : Electrical Power, ECL France    | <ul style="list-style-type: none"> <li>Technology and energy management planning</li> <li>Electrical measurement</li> <li>Micro hydro</li> <li>Electric power planning</li> <li>Power system stability</li> </ul> | √<br><br><br>√<br><br><br>√<br><br><br>√ | Head Lecturer     | 08100803754                       |                                                  | Technology and energy management planning | √                                                                       | <ul style="list-style-type: none"> <li>Conservation of new and renewable electrical energy</li> <li>Computational methods and analysis of electric power systems</li> <li>Programming in power systems</li> <li>Electric power distribution system design</li> <li>Ecology and global environmental change</li> </ul> |

| No. | Lecturer Name              | NIDN/ NIDK        | Postgraduate Education                   |                                                   | Areas of expertise                                            | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                             | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                     |
|-----|----------------------------|-------------------|------------------------------------------|---------------------------------------------------|---------------------------------------------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                            |                   | Masters/ Applied Masters/ Specialist     | Doctoral/ Applied Doctor/ Specialist              |                                                               |                                         |                   |                                   |                                                  |                                                                                                                             |                                                                         |                                                                                                                                                                                                                                                                |
| 1   | 2                          | 3                 | 4                                        |                                                   | 5                                                             | 6                                       | 7                 | 8                                 | 9                                                | 10                                                                                                                          | 11                                                                      | 12                                                                                                                                                                                                                                                             |
|     |                            |                   |                                          |                                                   | <ul style="list-style-type: none"> <li>• Labor law</li> </ul> | √                                       |                   |                                   |                                                  |                                                                                                                             |                                                                         | <ul style="list-style-type: none"> <li>• Energy and environment</li> <li>• Conservation and audit of electricity consumption</li> <li>• Electric power conservation model and simulation concept</li> <li>• Renewable energy</li> <li>• Power plant</li> </ul> |
| 14  | Dr. Rini Budiastuti, M.Sc. | <u>0021026103</u> | S2 : Environment, Gadjah Mada University | S3 : Environmental Science, Diponegoro University | Environmental science and natural resources                   | √                                       | Head Lecturer     | 091100809377                      |                                                  | <ul style="list-style-type: none"> <li>• Ecology and Environmental Pollution</li> <li>• Ecology and biodiversity</li> </ul> |                                                                         | <ul style="list-style-type: none"> <li>• Phytopathology</li> <li>• Medicinal plant biology</li> <li>• Post-harvest handling</li> <li>• Biofuels</li> </ul>                                                                                                     |

| No. | Lecturer Name         | NIDN/ NIDK        | Postgraduate Education                               |                                                   | Areas of expertise                                                                                     | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                                                                                                                                                                 | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                    |
|-----|-----------------------|-------------------|------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                       |                   | Masters/ Applied Masters/ Specialist                 | Doctoral/ Applied Doctor/ Specialist              |                                                                                                        |                                         |                   |                                   |                                                  |                                                                                                                                                                                                                                                                 |                                                                         |                                                                                                                                                                                                                               |
| 1   | 2                     | 3                 | 4                                                    |                                                   | 5                                                                                                      | 6                                       | 7                 | 8                                 | 9                                                | 10                                                                                                                                                                                                                                                              | 11                                                                      | 12                                                                                                                                                                                                                            |
|     |                       |                   |                                                      |                                                   |                                                                                                        |                                         |                   |                                   |                                                  |                                                                                                                                                                                                                                                                 |                                                                         | <ul style="list-style-type: none"> <li>Industrial plant biology</li> <li>Food plant biology</li> <li>Vegetable bioproducts</li> </ul>                                                                                         |
| 15  | Dr. Kismartini, M.Si. | <u>0028036111</u> | S2 : Environmental Planning, University of Indonesia | S3 : Public Administration, Universitas Brawijaya | <ul style="list-style-type: none"> <li>Environmental planning</li> <li>Environmental policy</li> </ul> | <div>√</div> <div>√</div>               | Head Lecturer     | 091100806197                      |                                                  | <ul style="list-style-type: none"> <li>Ecology and environmental science</li> <li>Conservation of natural resources and the environment</li> <li>Social dimensions of the environment and natural resources</li> <li>Environmental planning theories</li> </ul> | <div>√</div> <div>√</div> <div>√</div> <div>√</div>                     | <ul style="list-style-type: none"> <li>Public policy analysis</li> <li>Environmental management</li> <li>Public policy</li> <li>Regional autonomy issues and policies</li> <li>Administrative research methodology</li> </ul> |

| No. | Lecturer Name              | NIDN/ NIDK        | Postgraduate Education                                              |                                                    | Areas of expertise                                                                                                  | Compatibility with PS Core Competencies                                   | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                              | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                            |
|-----|----------------------------|-------------------|---------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                            |                   | Masters/ Applied Masters/ Specialist                                | Doctoral/ Applied Doctor/ Specialist               |                                                                                                                     |                                                                           |                   |                                   |                                                  |                                                                                              |                                                                         |                                                                                                                                                                                                                                                                                                       |
| 1   | 2                          | 3                 | 4                                                                   |                                                    | 5                                                                                                                   | 6                                                                         | 7                 | 8                                 | 9                                                | 10                                                                                           | 11                                                                      | 12                                                                                                                                                                                                                                                                                                    |
|     |                            |                   |                                                                     |                                                    |                                                                                                                     |                                                                           |                   |                                   |                                                  |                                                                                              |                                                                         | <ul style="list-style-type: none"> <li>Disaster management</li> <li>Governance by network</li> </ul>                                                                                                                                                                                                  |
| 16  | Dr. Hartuti Purnaweni, MPA | <u>0002126105</u> | S2 : Public Administration, School of Public Administration, Canada | S3 : Environmental Science, Gadjah Mada University | <ul style="list-style-type: none"> <li>Environmental planning</li> <li>Environmental policy</li> <li>EIA</li> </ul> | <ul style="list-style-type: none"> <li>√</li> <li>√</li> <li>√</li> </ul> | Head Lecturer     | 091100806246                      |                                                  | <ul style="list-style-type: none"> <li>EIA</li> <li>Environmental planning basics</li> </ul> | <ul style="list-style-type: none"> <li>√</li> <li>√</li> </ul>          | <ul style="list-style-type: none"> <li>Transnational crime in the environmental field</li> <li>Public policy comparison</li> <li>Public policy analysis</li> <li>Implementation and evaluation of public policies</li> <li>Environmental planning</li> <li>Environmental planning theories</li> </ul> |

| No. | Lecturer Name                    | NIDN/ NIDK        | Postgraduate Education                                                   |                                              | Areas of expertise                                                                              | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                    |
|-----|----------------------------------|-------------------|--------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                  |                   | Masters/ Applied Masters/ Specialist                                     | Doctoral/ Applied Doctor/ Specialist         |                                                                                                 |                                         |                   |                                   |                                                  |                                 |                                                                         |                                                                                                                                                                                                                                               |
| 1   | 2                                | 3                 | 4                                                                        |                                              | 5                                                                                               | 6                                       | 7                 | 8                                 | 9                                                | 10                              | 11                                                                      | 12                                                                                                                                                                                                                                            |
|     |                                  |                   |                                                                          |                                              |                                                                                                 |                                         |                   |                                   |                                                  |                                 |                                                                         | <ul style="list-style-type: none"> <li>• Human ecology</li> <li>• Public policy</li> <li>• Ecology, human ecology and industrial ecology</li> <li>• Capacity building</li> </ul>                                                              |
| 17  | Dr. Ir. Setia Budi Sasongko, DEA | <u>0026126104</u> | S2 : Chemical Engineering, Université de Technologie de Compiègne France | S3 : Modeling, Universiti Teknologi Malaysia | <ul style="list-style-type: none"> <li>• Modeling</li> <li>• System dynamic analysis</li> </ul> | √<br><br>√                              | Head Lecturer     | 101100809738                      |                                                  | Environmental system analysis   | √                                                                       | <ul style="list-style-type: none"> <li>• Reactor</li> <li>• Chemical reaction technique</li> <li>• Pollution and damage control concepts</li> <li>• Process modeling and computing</li> <li>• Advanced chemical reaction technique</li> </ul> |

| No. | Lecturer Name                   | NIDN/ NIDK       | Postgraduate Education               |                                                                                    | Areas of expertise                                    | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                       | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                                                                                       |
|-----|---------------------------------|------------------|--------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                 |                  | Masters/ Applied Masters/ Specialist | Doctoral/ Applied Doctor/ Specialist                                               |                                                       |                                         |                   |                                   |                                                  |                                                                       |                                                                         |                                                                                                                                                                                                                                                                                                                                                                  |
| 1   | 2                               | 3                | 4                                    |                                                                                    | 5                                                     | 6                                       | 7                 | 8                                 | 9                                                | 10                                                                    | 11                                                                      | 12                                                                                                                                                                                                                                                                                                                                                               |
|     |                                 |                  |                                      |                                                                                    |                                                       |                                         |                   |                                   |                                                  |                                                                       |                                                                         | <ul style="list-style-type: none"> <li>• New and renewable energy sources</li> <li>• System dynamic analysis</li> </ul>                                                                                                                                                                                                                                          |
| 18  | Dr. Fuad Muhammad, S.Si., M.Sc. | <u>017067301</u> | S2 : Biology, Gadjah Mada University | S3 : Natural Resources and Environmental Management, Bogor Agricultural University | Conservation of natural resources and the environment | √                                       | Head Lecturer     |                                   |                                                  | Conservation of natural resources and the environment<br>Job training | √<br><br><br><br><br><br><br><br><br><br>√                              | <ul style="list-style-type: none"> <li>• Introduction to bioconservation</li> <li>• Ecotourism</li> <li>• Biodiversity</li> <li>• Scientific communication techniques</li> <li>• Environmental science</li> <li>• Ecology</li> <li>• Animal biodiversity</li> <li>• Introduction to social science</li> <li>• Ecological system</li> <li>• Ecotourism</li> </ul> |

| No. | Lecturer Name                 | NIDN/ NIDK        | Postgraduate Education                                      |                                                                           | Areas of expertise                                                                                                   | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                                                                     | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                                                                                                  |
|-----|-------------------------------|-------------------|-------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                               |                   | Masters/ Applied Masters/ Specialist                        | Doctoral/ Applied Doctor/ Specialist                                      |                                                                                                                      |                                         |                   |                                   |                                                  |                                                                                                                                                                     |                                                                         |                                                                                                                                                                                                                                                                                                                                                                             |
| 1   | 2                             | 3                 | 4                                                           |                                                                           | 5                                                                                                                    | 6                                       | 7                 | 8                                 | 9                                                | 10                                                                                                                                                                  | 11                                                                      | 12                                                                                                                                                                                                                                                                                                                                                                          |
| 19  | Dr. Ing. Sudarno, S.T., M.Sc. | <u>0031017402</u> | S2 : Environmental Technology, Wageningen Univ. Netherlands | S3 : Environmental Technology, Karlsruhe Institute of Technology, Germany | <ul style="list-style-type: none"> <li>Environmental Engineering</li> <li>Environmental pollution control</li> </ul> | <div>√</div> <div>√</div>               | Head Lecturer     | 12100100807178                    |                                                  | <ul style="list-style-type: none"> <li>Environmental pollution control</li> <li>Mass transfer and transformation</li> <li>Solid waste and B3 . treatment</li> </ul> | <div>√</div> <div>√</div> <div>√</div>                                  | <ul style="list-style-type: none"> <li>Clean technology and waste minimization</li> <li>Scientific publications</li> <li>Planning of waste water treatment buildings</li> <li>Dissertation design</li> <li>Pollution control technology</li> <li>Scientific article writing</li> <li>Waste water distribution</li> <li>Introduction to environmental science and</li> </ul> |

| No. | Lecturer Name                             | NIDN/ NIDK        | Postgraduate Education                                      |                                                                     | Areas of expertise       | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS     | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                           |
|-----|-------------------------------------------|-------------------|-------------------------------------------------------------|---------------------------------------------------------------------|--------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                           |                   | Masters/ Applied Masters/ Specialist                        | Doctoral/ Applied Doctor/ Specialist                                |                          |                                         |                   |                                   |                                                  |                                     |                                                                         |                                                                                                                                                                                                      |
| 1   | 2                                         | 3                 | 4                                                           |                                                                     | 5                        | 6                                       | 7                 | 8                                 | 9                                                | 10                                  | 11                                                                      | 12                                                                                                                                                                                                   |
|     |                                           |                   |                                                             |                                                                     |                          |                                         |                   |                                   |                                                  |                                     |                                                                         | engineering<br><ul style="list-style-type: none"> <li>Urban waste management system</li> <li>Sludge treatment</li> <li>Basic understanding of ecology</li> <li>Environmental microbiology</li> </ul> |
| 20  | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D. | <u>0030097402</u> | S2 : Environmental Engineering Science, Griffith University | S3 : Geo Environmental Engineering, Curtin University Of Technology | Environmental management | √                                       | Head Lecturer     | 15100100802786                    |                                                  | Ecology and environmental pollution | √                                                                       | <ul style="list-style-type: none"> <li>Research methodology</li> <li>Engineering research methods</li> <li>Waste management</li> <li>Water resources engineering</li> </ul>                          |

| No. | Lecturer Name                                      | NIDN/ NIDK       | Postgraduate Education                              |                                                                         | Areas of expertise | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS  | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                               |
|-----|----------------------------------------------------|------------------|-----------------------------------------------------|-------------------------------------------------------------------------|--------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|----------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                                    |                  | Masters/ Applied Masters/ Specialist                | Doctoral/ Applied Doctor/ Specialist                                    |                    |                                         |                   |                                   |                                                  |                                  |                                                                         |                                                                                                                                                                                                          |
| 1   | 2                                                  | 3                | 4                                                   |                                                                         | 5                  | 6                                       | 7                 | 8                                 | 9                                                | 10                               | 11                                                                      | 12                                                                                                                                                                                                       |
|     |                                                    |                  |                                                     |                                                                         |                    |                                         |                   |                                   |                                                  |                                  |                                                                         | <ul style="list-style-type: none"> <li>• Environmental science</li> <li>• Introduction to environmental science and engineering</li> <li>• English</li> <li>• Environmental management system</li> </ul> |
| 21  | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | <u>011127705</u> | S2 : Geological Engineering, Gadjah Mada University | S3 : Hydrogeology, Rheinisch West Falische Technische Hochschule Aachen | Geotechnical       | √                                       | Head Lecturer     | 15100100804440                    |                                                  | Mass transfer and transformation | √                                                                       | <ul style="list-style-type: none"> <li>• Remote sensing geology</li> <li>• Watershed hydrology</li> <li>• Engineering economics</li> <li>• Geological drawing technique</li> </ul>                       |

| No. | Lecturer Name                   | NIDN/ NIDK        | Postgraduate Education                   |                                                         | Areas of expertise                     | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                             | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                              |
|-----|---------------------------------|-------------------|------------------------------------------|---------------------------------------------------------|----------------------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                 |                   | Masters/ Applied Masters/ Specialist     | Doctoral/ Applied Doctor/ Specialist                    |                                        |                                         |                   |                                   |                                                  |                                                                                                                             |                                                                         |                                                                                                                                                                                                                                         |
| 1   | 2                               | 3                 | 4                                        |                                                         | 5                                      | 6                                       | 7                 | 8                                 | 9                                                | 10                                                                                                                          | 11                                                                      | 12                                                                                                                                                                                                                                      |
|     |                                 |                   |                                          |                                                         |                                        |                                         |                   |                                   |                                                  |                                                                                                                             |                                                                         | <ul style="list-style-type: none"> <li>• Engineering geology/dam foundation</li> <li>• Hydrogeology</li> <li>• Environmental science</li> <li>• Geostatistics-ka</li> <li>• Groundwater geochemistry</li> <li>• Geocomputing</li> </ul> |
| 22  | Dr. Jafron Wasiq Hidayat, M.Sc. | <u>0025036407</u> | S2 : Marine Biology, University of Wales | S3 : Coastal Resource Management, Diponegoro University | Bioecology of planktonic invertebrates | √                                       | Lecturer          | 13100100800284                    |                                                  | <ul style="list-style-type: none"> <li>• Ecology and biodiversity</li> <li>• Ecology and environmental pollution</li> </ul> | √<br><br>√                                                              | <ul style="list-style-type: none"> <li>• Marine biology</li> <li>• Biomonitoring</li> <li>• Research methodology</li> <li>• Ecotourism</li> <li>• Animal biodiversity</li> <li>• Carcinology</li> </ul>                                 |

| No. | Lecturer Name                | NIDN/ NIDK        | Postgraduate Education                                            |                                                             | Areas of expertise                | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS                                                                                                                                                                         | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                       |
|-----|------------------------------|-------------------|-------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                              |                   | Masters/ Applied Masters/ Specialist                              | Doctoral/ Applied Doctor/ Specialist                        |                                   |                                         |                   |                                   |                                                  |                                                                                                                                                                                                         |                                                                         |                                                                                                                                                                                                                                                                                  |
| 1   | 2                            | 3                 | 4                                                                 |                                                             | 5                                 | 6                                       | 7                 | 8                                 | 9                                                | 10                                                                                                                                                                                                      | 11                                                                      | 12                                                                                                                                                                                                                                                                               |
|     |                              |                   |                                                                   |                                                             |                                   |                                         |                   |                                   |                                                  |                                                                                                                                                                                                         |                                                                         | <ul style="list-style-type: none"> <li>• Environmental science</li> <li>• Wildlife ecology</li> <li>• Molecular Biology</li> <li>• Experimental ecology</li> <li>• Ecotourism</li> </ul>                                                                                         |
| 23  | Dr. Eng. Maryono, S.T., M.T. | <u>0011087503</u> | S2 : Urban and Regional Planning, Bandung Institute of Technology | S3 : Urban and Environmental Engineering, Kyushu University | Environmental management planning | √                                       | Lecturer          | 11100100807130                    |                                                  | <ul style="list-style-type: none"> <li>• Environmental planning theories</li> <li>• Environmental psychology</li> <li>• Environmental management</li> <li>• Spatial planning and environment</li> </ul> | √<br><br>√<br>√<br>√                                                    | <ul style="list-style-type: none"> <li>• Planning analysis method</li> <li>• Infrastructure planning</li> <li>• Spatial planning studio</li> <li>• City area infrastructure</li> <li>• Planning evaluation</li> <li>• Disaster mitigation</li> <li>• Spatial planning</li> </ul> |

| No. | Lecturer Name                  | NIDN/ NIDK        | Postgraduate Education               |                                      | Areas of expertise | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                                           |
|-----|--------------------------------|-------------------|--------------------------------------|--------------------------------------|--------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                                |                   | Masters/ Applied Masters/ Specialist | Doctoral/ Applied Doctor/ Specialist |                    |                                         |                   |                                   |                                                  |                                 |                                                                         |                                                                                                                                                                                                                                                                                                                      |
| 1   | 2                              | 3                 | 4                                    |                                      | 5                  | 6                                       | 7                 | 8                                 | 9                                                | 10                              | 11                                                                      | 12                                                                                                                                                                                                                                                                                                                   |
|     |                                |                   |                                      |                                      |                    |                                         |                   |                                   |                                                  |                                 |                                                                         | theory and practice <ul style="list-style-type: none"> <li>• Spatial and environmental dimensions</li> <li>• Residential systems and regional infrastructure</li> <li>• Advanced spatial analysis</li> <li>• Planning and development information system</li> <li>• Sustainable infrastructure management</li> </ul> |
| 24  | Dr. Budi Warsito, S.Si., M.Sc. | <u>0024087502</u> | S2 : Mathematics, Gadjah             | S3 : Mathematics, Gadjah             | Neural network     | √                                       | Lecturer          | 11100100802001                    |                                                  | Environmental statistics        | √                                                                       | <ul style="list-style-type: none"> <li>• Data mining</li> <li>• Statistics</li> </ul>                                                                                                                                                                                                                                |

| No. | Lecturer Name                | NIDN/ NIDK        | Postgraduate Education                                     |                                                          | Areas of expertise | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                                                                                                  |
|-----|------------------------------|-------------------|------------------------------------------------------------|----------------------------------------------------------|--------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |                              |                   | Masters/ Applied Masters/ Specialist                       | Doctoral/ Applied Doctor/ Specialist                     |                    |                                         |                   |                                   |                                                  |                                 |                                                                         |                                                                                                                                                                                                                                                                                             |
| 1   | 2                            | 3                 | 4                                                          |                                                          | 5                  | 6                                       | 7                 | 8                                 | 9                                                | 10                              | 11                                                                      | 12                                                                                                                                                                                                                                                                                          |
|     |                              |                   | Mada University                                            | Mada University                                          |                    |                                         |                   |                                   |                                                  |                                 |                                                                         | <ul style="list-style-type: none"> <li>• Computational methods and statistics</li> <li>• Information system audit</li> <li>• Algorithms and programming</li> <li>• Advanced statistical computing</li> <li>• Control planning and project management</li> <li>• Basic statistics</li> </ul> |
| 25  | Dr. Ing. Suherman, S.T., M.T | <u>0004087601</u> | S2 : Chemical Engineering, Bandung Institute of Technology | S3 : Chemical Engineering, Otto Von Guericke Universitat | Clean technique    | √                                       | Lecturer          | 1110010081482                     |                                                  | Clean technology                | √                                                                       | <ul style="list-style-type: none"> <li>• Humidification and drying</li> <li>• Separation technology</li> <li>• Solids and solids</li> </ul>                                                                                                                                                 |

| No. | Lecturer Name | NIDN/ NIDK | Postgraduate Education               |                                      | Areas of expertise | Compatibility with PS Core Competencies | Academic Position | Professional Educator Certificate | Certificate of Competence/ Profession / Industry | Courses Taught at Accredited PS | The suitability of the field of expertise with the subject being taught | Courses Taught at Other PS                                                                                                                                                                                 |
|-----|---------------|------------|--------------------------------------|--------------------------------------|--------------------|-----------------------------------------|-------------------|-----------------------------------|--------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |               |            | Masters/ Applied Masters/ Specialist | Doctoral/ Applied Doctor/ Specialist |                    |                                         |                   |                                   |                                                  |                                 |                                                                         |                                                                                                                                                                                                            |
| 1   | 2             | 3          | 4                                    |                                      | 5                  | 6                                       | 7                 | 8                                 | 9                                                | 10                              | 11                                                                      | 12                                                                                                                                                                                                         |
|     |               |            |                                      | Magdeburg                            |                    |                                         |                   |                                   |                                                  |                                 |                                                                         | transportation<br><ul style="list-style-type: none"> <li>• Advanced drying technology</li> <li>• Operation unit 1</li> <li>• Operation unit 3</li> <li>• Energy efficiency and pinch technology</li> </ul> |

**Information:**

NDT = Number of Permanent Lecturers of Higher Education assigned as tutors in accredited Study Programs.

NDTPS = Number of Permanent Lecturers of Higher Education assigned as tutors with areas of expertise that are in accordance with the core competencies of the accredited study program.

- <sup>1)</sup> To be completed with the type of program (Master/Applied Master/Doctoral/Applied Doctorate) and the name of the study program in undergraduate education that you have attended.
- <sup>2)</sup> Filled with areas of expertise according to post-graduate education that is relevant to the subject being taught.
- <sup>3)</sup> Filled with a check mark V if the area of expertise is in accordance with the core competencies of the accredited study program.
- <sup>4)</sup> Filled with Professional Educator Certificate number.
- <sup>5)</sup> Filled with field of certification and certificate issuing agency. This data is filled in by the proposer and the study program in the Diploma Three program and the Applied Bachelor program
- <sup>6)</sup> To be completed with the name of the course taught in the accredited study program at the time of TS-2 to TS.

<sup>7)</sup> Filled with a check mark V if the area of expertise corresponds to the subject being taught.

<sup>8)</sup> Filled with the name of the course taught by the DTPS outside of other study programs during TS-2 to TS.

Write down the DTPS assigned as the main supervisor for the student's final project (Final Report/Thesis//Thesis/Dissertation) 1) in the last 3 years by following the following format.

Table 3.a.2 Main Advisor for Final Project

| No. | Lecturer Name                                           | Number of Supervised Students |      |    |         |                                       |      |    |         | Average Number of Tutoring in all Programs/ Semesters |
|-----|---------------------------------------------------------|-------------------------------|------|----|---------|---------------------------------------|------|----|---------|-------------------------------------------------------|
|     |                                                         | on Accredited PS              |      |    |         | on Other PS on the same Program at PT |      |    |         |                                                       |
|     |                                                         | TS-2                          | TS-1 | TS | Average | TS-2                                  | TS-1 | TS | Average |                                                       |
| 1   | 2                                                       | 3                             | 4    | 5  | 6       | 7                                     | 8    | 9  | 10      | 11                                                    |
| 1   | Prof. Drs. Sudharto P Hadi, MES, Ph.D.                  | 1                             | 3    | 1  | 1.7     | 6                                     | 6    | 4  | 5.3     | 3.5                                                   |
| 2   | Prof. Dr. Ir. Purwanto. DEA                             | 2                             | 2    | 4  | 2.7     | 6                                     | 6    | 6  | 6.0     | 4.3                                                   |
| 3   | Prof. Dr. Ir. Azis Nur Bambang, MS                      | 2                             | 1    | 1  | 1.3     | 6                                     | 6    | 4  | 5.3     | 3.3                                                   |
| 4   | Prof. Dr. Ir. Sutrisno Anggoro, M.Si.                   | 2                             | 1    | 1  | 1.3     | 6                                     | 6    | 5  | 5.7     | 3.5                                                   |
| 5   | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | 1                             | 5    | 1  | 2.3     | 2                                     | 2    | 2  | 2.0     | 2.2                                                   |
| 6   | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.              | 1                             | 1    | 1  | 1.0     | 6                                     | 6    | 2  | 4.7     | 2.8                                                   |
| 7   | Prof. Dr. rer. nat. Imam Buchori, S.T.                  | 1                             | 1    | 1  | 1.0     | 1                                     | 3    | 6  | 3.3     | 2.2                                                   |
| 8   | Prof. Dr. Istadi, S.T., M.T.                            | 1                             | 1    | 1  | 1.0     | 4                                     | 6    | 1  | 3.7     | 2.3                                                   |
| 9   | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.           | 1                             | 2    | 1  | 1.3     | 6                                     | 6    | 5  | 5.7     | 3.5                                                   |
| 10  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T.      | 1                             | 1    | 1  | 1.0     | 6                                     | 6    | 2  | 4.7     | 2.8                                                   |
| 11  | Prof. Dr. Hadiyanto, S.T., M.Sc.                        | 2                             | 6    | 5  | 4.3     | 2                                     | 4    | 4  | 3.3     | 3.8                                                   |
| 12  | Dr. Dra. Sunarsih, M.Si.                                | 1                             | 1    | 1  | 1.0     | 6                                     | 6    | 2  | 4.7     | 2.8                                                   |
| 13  | Dr. Ir. Hermawan, DEA                                   | 1                             | 1    | 1  | 1.0     | 6                                     | 6    | 1  | 4.3     | 2.7                                                   |
| 14  | Dr. Rini Budihastuti, M.Sc.                             | 1                             | 1    | 1  | 1.0     | 6                                     | 1    | 1  | 2.7     | 1.8                                                   |
| 15  | Dr. Kismartini, M.Si.                                   | 1                             | 4    | 1  | 2.0     | 6                                     | 6    | 6  | 6.0     | 4.0                                                   |

| No. | Lecturer Name                                      | Number of Supervised Students |      |    |         |                                       |      |    |         | Average Number of Tutoring in all Programs/ Semesters |
|-----|----------------------------------------------------|-------------------------------|------|----|---------|---------------------------------------|------|----|---------|-------------------------------------------------------|
|     |                                                    | on Accredited PS              |      |    |         | on Other PS on the same Program at PT |      |    |         |                                                       |
|     |                                                    | TS-2                          | TS-1 | TS | Average | TS-2                                  | TS-1 | TS | Average |                                                       |
| 1   | 2                                                  | 3                             | 4    | 5  | 6       | 7                                     | 8    | 9  | 10      | 11                                                    |
| 16  | Dr. Hartuti Purnaweni, MPA                         | 1                             | 2    | 1  | 1.3     | 6                                     | 6    | 5  | 5.7     | 3.5                                                   |
| 17  | Dr. Ir. Setia Budi Sasongko, DEA                   | 1                             | 1    | 1  | 1.0     | 6                                     | 6    | 2  | 4.7     | 2.8                                                   |
| 18  | Dr. Fuad Muhammad, S.Si., M.Sc.                    | 2                             | 5    | 5  | 4.0     | 2                                     | 6    | 1  | 3.0     | 3.5                                                   |
| 19  | Dr. Ing. Sudarno, S.T., M.Sc.                      | 1                             | 2    | 1  | 1.3     | 6                                     | 4    | 4  | 4.7     | 3.0                                                   |
| 20  | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D.          | 1                             | 2    | 1  | 1.3     | 6                                     | 6    | 6  | 6.0     | 3.7                                                   |
| 21  | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | 1                             | 1    | 1  | 1.0     | 6                                     | 6    | 6  | 6.0     | 3.5                                                   |
| 22  | Dr. Jafron Wasiq Hidayat, M.Sc.                    | 2                             | 2    | 1  | 1.7     | 4                                     | 6    | 1  | 3.7     | 2.7                                                   |
| 23  | Dr. Eng. Maryono, S.T., M.T.                       | 2                             | 6    | 6  | 4.7     | 5                                     | 2    | 6  | 4.3     | 4.5                                                   |
| 24  | Dr. Budi Warsito, S.Si., M.Si.                     | 1                             | 1    | 1  | 1.0     | 3                                     | 3    | 6  | 4.0     | 2.5                                                   |
| 25  | Dr. Ing. Suherman, S.T., M.T.                      | 1                             | 2    | 1  | 1.3     | 1                                     | 1    | 1  | 1.0     | 1.2                                                   |
|     | Average                                            |                               |      |    |         |                                       |      |    |         | 3.1                                                   |

Information:

- <sup>1)</sup> Assignment as a student final project supervisor is evidenced by an assignment letter issued by UPPS.
- <sup>2)</sup> Filled with the name of the lecturer assigned to be the main supervisor.
- <sup>3)</sup> Filled with data on the number of students who are mentored in the Accredited Study Program.
- <sup>4)</sup> Filled with data on the number of students who are mentored in other Study Programs in the same Program at the Higher Education.

Table 3.a.3 Equivalent Full Teaching Time (EWMP) of Permanent Lecturers in Higher Education

| No. | Lecturer Name (DT)                                      | DTPS | Equivalent Full Teaching Time (EWMP) at the time of TS in semester credit units (credits) |                |                     |          |      |                                    | Amount (credit) | Average per Semester (credits) |
|-----|---------------------------------------------------------|------|-------------------------------------------------------------------------------------------|----------------|---------------------|----------|------|------------------------------------|-----------------|--------------------------------|
|     |                                                         |      | Education: Learning and Mentoring                                                         |                |                     | Research | PkM  | Additional and/or Supporting Tasks |                 |                                |
|     |                                                         |      | Accredited PS                                                                             | PS Other in PT | PS Other outside PT |          |      |                                    |                 |                                |
| 1   | 2                                                       | 3    | 4                                                                                         | 5              | 6                   | 7        | 8    | 9                                  | 10              | 11                             |
| 1   | Prof. Drs. Sudharto P Hadi, MES, Ph.D.                  | V    | 0.34                                                                                      | 15.75          | 0.00                | 8.20     | 2.08 | 6.50                               | 32.87           | 16.44                          |
| 2   | Prof. Dr. Ir. Purwanto. DEA                             | V    | 0.34                                                                                      | 16.52          | 0.00                | 9.20     | 2.80 | 5.50                               | 34.36           | 17.18                          |
| 3   | Prof. Dr. Ir. Azis Nur Bambang, MS                      | V    | 1.18                                                                                      | 16.18          | 0.00                | 9.00     | 2.00 | 4.00                               | 32.36           | 16.18                          |
| 4   | Prof. Dr. Ir. Sutrisno Anggoro, M.Si.                   | V    | 0.34                                                                                      | 16.07          | 0.00                | 8.00     | 2.00 | 6.75                               | 33.16           | 16.58                          |
| 5   | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | V    | 0.83                                                                                      | 14.80          | 0.00                | 8.80     | 4.30 | 6.50                               | 35.23           | 17.62                          |
| 6   | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.              | V    | 0.50                                                                                      | 16.57          | 0.00                | 4.40     | 1.50 | 4.50                               | 27.47           | 13.74                          |
| 7   | Prof. Dr. rer. nat. Imam Buchori, S.T.                  | V    | 0.50                                                                                      | 11.75          | 0.00                | 9.60     | 2.20 | 7.05                               | 31.10           | 15.55                          |
| 8   | Prof. Dr. Istadi, S.T., M.T.                            | V    | 0.50                                                                                      | 14.01          | 0.00                | 5.20     | 4.70 | 7.00                               | 31.41           | 15.71                          |
| 9   | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.           | V    | 0.67                                                                                      | 16.04          | 0.00                | 6.40     | 2.90 | 5.25                               | 31.26           | 15.63                          |
| 10  | Prof. Dr. rer. nat. Heru Susanto, ST., M.M., M.T.       | V    | 0.17                                                                                      | 16.02          | 0.00                | 8.20     | 5.10 | 6.25                               | 35.74           | 17.87                          |
| 11  | Prof. Dr. Hadiyanto, S.T., M.Sc.                        | V    | 2.68                                                                                      | 15.82          | 0.00                | 8.80     | 5.72 | 6.05                               | 39.07           | 19.54                          |
| 12  | Dr. Sunarsih, M.Si.                                     | V    | 0.84                                                                                      | 14.76          | 0.00                | 6.20     | 1.50 | 7.65                               | 30.95           | 15.48                          |
| 13  | Dr. Ir. Hermawan, DEA                                   | V    | 0.50                                                                                      | 16.84          | 0.00                | 4.80     | 3.00 | 6.50                               | 31.64           | 15.82                          |
| 14  | Dr. Rini Budiastuti, M.Sc.                              | V    | 0.50                                                                                      | 3.31           | 0.00                | 5.20     | 1.50 | 2.00                               | 12.51           | 6.26                           |
| 15  | Dr. Kismartini, M.Si.                                   | V    | 1.84                                                                                      | 16.05          | 0.00                | 5.50     | 1.50 | 6.10                               | 30.99           | 15.50                          |
| 16  | Dr. Hartuti Purnaweni, MPA                              | V    | 0.51                                                                                      | 16.86          | 0.00                | 6.60     | 1.67 | 6.25                               | 31.89           | 15.95                          |
| 17  | Dr. Ir. Setia Budi Sasongko, DEA                        | V    | 0.51                                                                                      | 13.14          | 0.00                | 5.40     | 3.10 | 8.26                               | 30.41           | 15.21                          |
| 18  | Dr. Fuad Muhammad, S.Si., M.Sc.                         | V    | 2.86                                                                                      | 10.35          | 0.00                | 6.40     | 4.20 | 3.75                               | 27.56           | 13.78                          |
| 19  | Dr. Ing. Sudarno, S.T., M.Sc.                           | V    | 2.35                                                                                      | 15.00          | 0.00                | 5.80     | 5.56 | 5.75                               | 34.46           | 17.23                          |
| 20  | Mochamad Arief B., S.T., M.Eng, Env.Eng, Ph.D           | V    | 0.68                                                                                      | 10.51          | 0.00                | 5.60     | 5.60 | 6.80                               | 29.19           | 14.60                          |
| 21  | Dr. rer. nat. Thomas Triadi Putranto, ST, M.Eng.        | V    | 0.85                                                                                      | 13.92          | 0.00                | 7.00     | 5.00 | 5.95                               | 32.72           | 16.36                          |

| No.     | Lecturer Name (DT)              | DTPS | Equivalent Full Teaching Time (EWMP) at the time of TS in semester credit units (credits) |                |                     |          |      |                                    | Amount (credit) | Average per Semester (credits) |
|---------|---------------------------------|------|-------------------------------------------------------------------------------------------|----------------|---------------------|----------|------|------------------------------------|-----------------|--------------------------------|
|         |                                 |      | Education: Learning and Mentoring                                                         |                |                     | Research | PkM  | Additional and/or Supporting Tasks |                 |                                |
|         |                                 |      | Accredited PS                                                                             | PS Other in PT | PS Other outside PT |          |      |                                    |                 |                                |
| 1       | 2                               | 3    | 4                                                                                         | 5              | 6                   | 7        | 8    | 9                                  | 10              | 11                             |
| 22      | Dr. Jafron Wasiq Hidayat, M.Sc. | V    | 0.68                                                                                      | 9.64           | 0.00                | 6.00     | 3.00 | 2.90                               | 22.22           | 11.11                          |
| 23      | Dr. Eng. Maryono, S.T., M.T.    | V    | 2.67                                                                                      | 12.41          | 0.00                | 3.20     | 3.00 | 7.05                               | 28.33           | 14.17                          |
| 24      | Dr. Budi Warsito, S.Si., M.Si.  | V    | 0.83                                                                                      | 14.55          | 0.00                | 6.40     | 2.00 | 6.75                               | 30.53           | 15.27                          |
| 25      | Dr. Ing. Suherman, S.T., M.T.   | V    | 0.50                                                                                      | 15.50          | 0.00                | 6.00     | 1.50 | 3.75                               | 27.25           | 13.63                          |
| Average |                                 |      |                                                                                           |                |                     |          |      |                                    | 30.59           | 15.29                          |

Information:

<sup>1)</sup> Filled with check mark V for Permanent Lecturers of Higher Education assigned as tutors with areas of expertise that are in accordance with the core competencies of the accredited Study Program.

Write down the data of Non-Permanent Lecturers who are assigned as subject teachers in Accredited study programs (DTT) during TS by following the following Table 3.a.4 format.

Table 3.a.4 Non-Permanent Lecturers

| No. | Lecturer Name | NIDN | Postgraduate Education 1) | Area of Expertise 2) | Academic Position | Professional Educator Certificate 3) | Courses Taught at Accredited PS4) | The suitability of the field of expertise with the subjects taught 5) |
|-----|---------------|------|---------------------------|----------------------|-------------------|--------------------------------------|-----------------------------------|-----------------------------------------------------------------------|
| 1   | 2             | 3    | 4                         | 5                    | 6                 | 7                                    | 8                                 | 9                                                                     |
| -   | -             | -    | -                         | -                    | -                 | -                                    | -                                 | -                                                                     |

|   |        |  |  |  |  |  |  |  |
|---|--------|--|--|--|--|--|--|--|
| Σ | NDTT = |  |  |  |  |  |  |  |
|---|--------|--|--|--|--|--|--|--|

Information:

NDTT = Number of Non-Permanent Lecturers assigned as tutors in accredited Study Programs

- 1) To be completed with the type of program (applied master/master/doctor/applied doctor) and the name of the study program in post-graduate education that you have attended.
- 2) Filled with areas of expertise according to post-graduate education that is relevant to the subject being taught.
- 3) Filled with professional educator certificate number.
- 4) Filled with the name of the course taught in the accredited study program at the time of TS-2 to TS.
- 5) Filled with a check mark V if the area of expertise corresponds to the subject being taught.

## b. Lecturer Performance

Write down the acknowledgment/recognition of the expertise/achievement/performance of DTSPS received in the last 3 years by following the format of Table 3.b.1 below.

Table 3.b.1 DTSPS Recognition/Recognition

| No. | Lecturer Name                          | Areas of expertise                               | Recognition and Supporting Evidence                                                                                                                                                                                          | Level  |          |               | Year (YYYY) |
|-----|----------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |                                        |                                                  |                                                                                                                                                                                                                              | Region | National | International |             |
| 1   | 2                                      | 3                                                | 4                                                                                                                                                                                                                            | 5      | 6        | 7             | 8           |
| 1   | Prof. Drs. Sudharto P Hadi, MES, Ph.D. | Environmental policy                             | Resource Person for Pertamina Green and Gold Proper Evaluation, Denpasar, Bali                                                                                                                                               |        |          | V             | 2017        |
|     |                                        | Environmental planning and community empowerment | Keynote speaker International Conference on Environment and Information System (ICENIS) Postgraduate School Diponegoro University                                                                                            |        |          | V             | 2017        |
|     |                                        | Environmental mediation and negotiation          | Keynote speaker International Conference on Tropical Coastal Region Eco-Development LPPM UNDIP                                                                                                                               |        |          | V             | 2017        |
|     |                                        |                                                  | Keynote speaker International Conference on Business, Economics and Social Science UNS Surakarta                                                                                                                             |        |          | V             | 2017        |
|     |                                        |                                                  | Resource person University Tropical Course Ecotourism and Sustainable Development in Coastal Region, providing a topic on Sustainable Coastal Management. Organized by International Office, Diponegoro University, Semarang |        |          | V             | 2017        |
|     |                                        |                                                  | Keynote speaker International Conference on Water Resource and Environment I-Shou University, Kaohsiung, Taiwan                                                                                                              |        |          | V             | 2018        |
|     |                                        |                                                  | Resource person for the Conference on Environmental Conservation through Language, Arts, Culture and Education. FBS UNNES                                                                                                    |        |          | V             | 2019        |
|     |                                        |                                                  | PROPER Advisory Council at the Ministry of Environment                                                                                                                                                                       |        | V        |               | 2017        |
|     |                                        |                                                  | Member of the Adiwiyata Advisory Council of the Ministry of Environment and Forestry                                                                                                                                         |        | V        |               | 2017        |
|     |                                        |                                                  | Giving a Public Lecture on BMKG World Meteorology Day, Jakarta                                                                                                                                                               |        | V        |               | 2017        |
|     |                                        |                                                  | WIC Interconference resource person, Women in the Era of Globalization                                                                                                                                                       |        | V        |               | 2017        |
|     |                                        |                                                  | Resource person for the Banten DRD Coordination Meeting, entitled Innovation for Community Welfare and Prosperity. Serang City                                                                                               |        | V        |               | 2017        |

| No. | Lecturer Name | Areas of expertise | Recognition and Supporting Evidence                                                                                                                                                                                                                                | Level  |          |               | Year (YYYY) |
|-----|---------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |               |                    |                                                                                                                                                                                                                                                                    | Region | National | International |             |
| 1   | 2             | 3                  | 4                                                                                                                                                                                                                                                                  | 5      | 6        | 7             | 8           |
|     |               |                    | Resource Person for Proper Workshop on Sustainable Performance Improvement, PT PHE WMO, Surabaya                                                                                                                                                                   |        | V        |               | 2017        |
|     |               |                    | Resource person for Indonesia International Defense Science Seminar (IIDSS) with a paper entitled Social Dimension of Alternative Dispute Resolution (ADR) organized by the Defense University, Sentul Bogor                                                       |        | V        |               | 2017        |
|     |               |                    | Resource Person for CSR Training Towards Gold Proper. PT PKT Bontang, East Kalimantan                                                                                                                                                                              |        | V        |               | 2017        |
|     |               |                    | Resource persons for Coordination Meeting on Natural Resources Management and Food Sovereignty with the title Material Management of Natural Resources Realizing Food Sovereignty. Organized by the Bureau of Infrastructure and Natural Resources (SDA), Semarang |        | V        |               | 2017        |
|     |               |                    | Resource person for Workshop on Green Business, PHE, Jakarta                                                                                                                                                                                                       |        | V        |               | 2017        |
|     |               |                    | Presented a paper entitled Community Based Coastal Management: Lesson from the Field at ICTCRED, Yogyakarta                                                                                                                                                        |        | V        |               | 2017        |
|     |               |                    | Resource person for the National Conference on ASBIS. Banjarmasin State Polytechnic                                                                                                                                                                                |        | V        |               | 2017        |
|     |               |                    | Resource Person for Proper Talkshow with the topic of Creating Value Collaboration between Government, Business and Society, KLHK, Jakarta                                                                                                                         |        | V        |               | 2017        |
|     |               |                    | Resource Person for Proper Evaluation of PHE ONWJ, Sentul, Bogor                                                                                                                                                                                                   |        | V        |               | 2018        |
|     |               |                    | Resource Person for 2017 Proper Evaluation Workshop and Strategy for Sustainability of Proper Gold in 2018, PT PHE WMO, Nusa Dua, Bali                                                                                                                             |        | V        |               | 2018        |
|     |               |                    | Resource persons, Proper Gold Knowledge Sharing Workshop, PT PKT Bontang, East Kalimantan                                                                                                                                                                          |        | V        |               | 2018        |
|     |               |                    | Resource persons for FGD Mapping Environmental and Forestry Issues. Organized by Center for Strategic Policy Studies, KLHK, Jakarta                                                                                                                                |        | V        |               | 2018        |

| No. | Lecturer Name | Areas of expertise | Recognition and Supporting Evidence                                                                                                                                                                                            | Level  |          |               | Year (YYYY) |
|-----|---------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |               |                    |                                                                                                                                                                                                                                | Region | National | International |             |
| 1   | 2             | 3                  | 4                                                                                                                                                                                                                              | 5      | 6        | 7             | 8           |
|     |               |                    | Resource Person for 2018 Kalimantan Ecoregion Technical Working Meeting, Balikpapan                                                                                                                                            |        | V        |               | 2018        |
|     |               |                    | Resource person for Regional Coordination Meeting for Research and Development, Palangkaraya City Research and Development Agency                                                                                              |        | V        |               | 2018        |
|     |               |                    | Resource Person for Multi-stakeholder Synergy Workshop in order to strengthen the Institutional Environmental Service to Support the Protection and Management of the Regional Environment in the Sumatra Ecoregion, Pekanbaru |        | V        |               | 2018        |
|     |               |                    | Resource Person for Proper Workshop PT PHE WMO: Sustainable Environmental Management and Protection, Surabaya                                                                                                                  |        | V        |               | 2018        |
|     |               |                    | Resource Person for Environmental Planning Training in Development. PSIL Cooperation with Bappenas                                                                                                                             |        | V        |               | 2018        |
|     |               |                    | Resource Person for the Seminar on Good Corporate Governance Development of PT Indonesia Power UPJP Priok Based on Gold Proper, Jakarta                                                                                        |        | V        |               | 2018        |
|     |               |                    | Resource persons for Monitoring the Implementation of Law 32 of 2009 concerning Environmental Protection and Management with the Expert Team of the DPR RI and PPLH Lemlit UNDIP, Semarang                                     |        | V        |               | 2018        |
|     |               |                    | Green and Gold Proper Workshop, Star Energy, Jakarta                                                                                                                                                                           |        | V        |               | 2018        |
|     |               |                    | Resource Person for Knowledge Sharing of Proper Participating Companies in Green and Gold Ranks at the Proper Environmental Award Night, entitled Synergizing the Triple Bottom Line through Proper. Jakarta                   |        | V        |               | 2018        |
|     |               |                    | Resource persons for the 2018 Proper Evaluation Workshop and the Preparation of the 2019 Proper Road Map for AP PHE, Bogor                                                                                                     |        | V        |               | 2019        |
|     |               |                    | Resource Person for Environmental Management Performance Evaluation of PT PJB, Bromo, Probolinggo                                                                                                                              |        | V        |               | 2019        |
|     |               |                    | Resource Person for Pertamina and AP Proper Evaluation Workshop, Banyuwangi                                                                                                                                                    |        | V        |               | 2019        |

| No. | Lecturer Name | Areas of expertise | Recognition and Supporting Evidence                                                                                                                                    | Level  |          |               | Year (YYYY) |
|-----|---------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |               |                    |                                                                                                                                                                        | Region | National | International |             |
| 1   | 2             | 3                  | 4                                                                                                                                                                      | 5      | 6        | 7             | 8           |
|     |               |                    | Resource Person for Sharing Session Proper Evaluation of PT Indonesia Power and AP, Pullman Hotel, Legian, Kuta, Bali                                                  |        | V        |               | 2019        |
|     |               |                    | Resource Person for Proper Workshop of PT Pertamina Hulu Indonesia (PHI), Balikpapan                                                                                   |        | V        |               | 2019        |
|     |               |                    | Resource person for ADR Training, Cooperation between PT PHE and PPLH LPPM UNDIP, Jakarta                                                                              |        | V        |               | 2019        |
|     |               |                    | Resource person for Knowledge Sharing about Proper PT PKT Bontang                                                                                                      |        | V        |               | 2019        |
|     |               |                    | Speaker of the Talk Show with the topic of the Company's Role in Environmental Protection in the context of Nature & Sustainability Days, Danone, Hotel Santika, Bogor |        | V        |               | 2019        |
|     |               |                    | Resource persons for Proper PHE WMO Workshop, Ubud, Bali                                                                                                               |        | V        |               | 2019        |
|     |               |                    | Resource Person for Discussion of Corporate Social and Environmental Responsibility Book Contextualization of PT PKT Bontang. Bontang, East Kalimantan                 |        | V        |               | 2019        |
|     |               |                    | Resource person for Seminar on Bio-Farma Sustainable Business: Mainstreaming the Environment and Social Responsibility. Bio Farma, Bandung                             |        | V        |               | 2019        |
|     |               |                    | Resource Person for Green and Gold Proper Technical Guidance at PT Danone-Aqua, Ciherang, Bogor                                                                        |        | V        |               | 2019        |
|     |               |                    | Resource Person for PT Pertamina Gas (Pertagas) Proper Workshop, Lubricant Building, Jakarta                                                                           |        | V        |               | 2019        |
|     |               |                    | Resource Person for Workshop on Proper Performance Improvement of PT Semen Indonesia Tuban, Tretes, Prigen, Pasuruan Factory Pabrik                                    |        | V        |               | 2019        |
|     |               |                    | Resource Person for CSR Synergy Talk Show. PT PJB, Paiton Probolinggo, East Java                                                                                       |        | V        |               | 2019        |
|     |               |                    | Resource Person Launching Extra-Curricular Waste Management Module for Elementary and Junior High School Students in Klungkung Regency, Bali                           |        | V        |               | 2019        |

| No. | Lecturer Name | Areas of expertise | Recognition and Supporting Evidence                                                                                                                                                       | Level  |          |               | Year (YYYY) |
|-----|---------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |               |                    |                                                                                                                                                                                           | Region | National | International |             |
| 1   | 2             | 3                  | 4                                                                                                                                                                                         | 5      | 6        | 7             | 8           |
|     |               |                    | Resource Person for CSR and Environment Workshop, Badak LNG, Bontang, East Kalimantan                                                                                                     |        | V        |               | 2019        |
|     |               |                    | Resource Person for Discussion on Draft Book of KLHS Potpourri, P3EJ, Yogyakarta                                                                                                          |        | V        |               | 2019        |
|     |               |                    | Resource person and moderator of the Environmental Partnership's FGD for the Achievement of the SDGs. Cooperation between KLHK and I-SER UI. Jakarta                                      |        | V        |               | 2019        |
|     |               |                    | Resource Person for Sustainable Space Utilization Workshop. Balitbang and DRD West Sumatra, Padang                                                                                        |        | V        |               | 2019        |
|     |               |                    | Speaker of the Talkshow Cultivating CSR in the context of the 74th National Electricity Day. PLN Jakarta                                                                                  |        | V        |               | 2019        |
|     |               |                    | Workshop Resource Person Towards PT Phapros Gold Proper, Semarang                                                                                                                         | V      |          |               | 2017        |
|     |               |                    | FGD resource persons for the preparation of the UNNES Conservation Values Book                                                                                                            | V      |          |               | 2017        |
|     |               |                    | Resource person for Central Java DRD Coordination Meeting, entitled Innovation for Community Welfare. Kebumen                                                                             | V      |          |               | 2017        |
|     |               |                    | Inspirational Leadership Forum (ILF) resource person, HMJ Business Administration FISIP UNDIP, Semarang                                                                                   | V      |          |               | 2017        |
|     |               |                    | Resource person for Sustainable Development Planning Training with a paper entitled Sustainable Development. Cooperation between Bappenas and PSIL SPS UNDIP, Semarang                    | V      |          |               | 2017        |
|     |               |                    | Resource Person for Regional and Urban Planning Briefing with the title of Environmental Dimensions of Spatial Planning. Organized by the Association of Planning Experts with MPWK UNDIP | V      |          |               | 2017        |
|     |               |                    | Resource persons on the topic of Humans and the Environment, AMDAL Training, PPLH UNDIP                                                                                                   | V      |          |               | 2017        |
|     |               |                    | Resource persons for Workshop on Knitting the Future of Rawapening Lake, PSIL and BP2TPDAS, KLHK), Semarang                                                                               | V      |          |               | 2017        |

| No. | Lecturer Name | Areas of expertise | Recognition and Supporting Evidence                                                                                                                                                          | Level  |          |               | Year (YYYY) |
|-----|---------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |               |                    |                                                                                                                                                                                              | Region | National | International |             |
| 1   | 2             | 3                  | 4                                                                                                                                                                                            | 5      | 6        | 7             | 8           |
|     |               |                    | Speaker of the Low Carbon Society Discussion in Semarang. Cooperation of PSIL SPS UNDIP with IGES, Japan. Semarang                                                                           | V      |          |               | 2018        |
|     |               |                    | Speaker of the National Waste Care Day Talkshow (HSPN). DLH Semarang City                                                                                                                    | V      |          |               | 2018        |
|     |               |                    | Resource person for Public Lecture on Social and Environmental Issues on Forest in Indonesia Cooperation of FISIP UNDIP with American Institute for Indonesian Studies, Semarang             | V      |          |               | 2018        |
|     |               |                    | Resource persons for FGD Partnership in Efforts to Preserve and Protect Water Resources in the framework of HAD XXVI 2018. Semarang                                                          | V      |          |               | 2018        |
|     |               |                    | Speaker of the Seminar on the PKS MPR Faction with the theme State Policy as a Model for National Development Planning in a Constitutional Perspective. Semarang                             | V      |          |               | 2018        |
|     |               |                    | Resource Person for Discussion Commemorating Environment Day with the theme of Environmental Improvement for the Welfare of the People of Central Java. Held by PSIL SPS UNDIP               | V      |          |               | 2018        |
|     |               |                    | Resource Person for Guiding the Duties and Roles of Lecturers at USM, Semarang                                                                                                               | V      |          |               | 2018        |
|     |               |                    | Head of the Jury Team for Writing Competititon Beswan Djarum Central Java-DIY, Semarang                                                                                                      | V      |          |               | 2018        |
|     |               |                    | Resource persons Plenary Session, ICISPE 2018, presented a paper entitled Sustainable Development: Current Problems and Future Challenges, Semarang                                          | V      |          |               | 2018        |
|     |               |                    | Resource person for the International Seminar on Water as Leverage for Resilient Cities Asia, Towards a Resilient Semarang through Integrated Water Management. Semarang City Government     | V      |          |               | 2019        |
|     |               |                    | Resource person for the National Seminar on Community Development for Environmental Management. Cooperation between HMJ Environmental Engineering FT UNDIP with PT Indonesia Power, Semarang | V      |          |               | 2019        |

| No. | Lecturer Name               | Areas of expertise                           | Recognition and Supporting Evidence                                                                                                                                            | Level  |          |               | Year (YYYY) |
|-----|-----------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |                             |                                              |                                                                                                                                                                                | Region | National | International |             |
| 1   | 2                           | 3                                            | 4                                                                                                                                                                              | 5      | 6        | 7             | 8           |
|     |                             |                                              | Teaching Human Ecology and Social Aspects of AMDAL, AMDAL Basics Course, PPLH Lemlit UNDIP, Semarang                                                                           | V      |          |               | 2019        |
|     |                             |                                              | Resource persons for Kendal Industrial Estate Workshop: Sustainable Environment, Regional Economic Growth and Job Opportunities. Organized by IKA PMII Kendal Regency          | V      |          |               | 2019        |
|     |                             |                                              | Resource person for FGD on Climate Change, KLHK, Semarang                                                                                                                      | V      |          |               | 2019        |
|     |                             |                                              | Book Author and Resource Person for Book Review and Discussion on Air Quality in the context of Commemorating Environmental Day 2019, SPS UNDIP                                | V      |          |               | 2019        |
|     |                             |                                              | Resource person for the National Seminar on Post-Disaster Health and Environmental Mitigation. Udinus, Semarang                                                                | V      |          |               | 2019        |
|     |                             |                                              | Resource Person for Environmental Planning Training in Development, SPS UNDIP, Oak Tree Hotel, Semarang                                                                        | V      |          |               | 2019        |
|     |                             |                                              | Lecturer on Growing a Culture of Environmental Care, Dharma Wanita Work Meeting, Central Java Province. Semarang                                                               | V      |          |               | 2019        |
|     |                             |                                              | Resource Person for Metro News Dialogue Land Subsidence in Semarang City, Studio Metro TV, Madukoro Raya Puri Anjasmoro, Semarang                                              | V      |          |               | 2019        |
| 2   | Prof. Dr. Ir. Purwanto. DEA | Clean Technology                             | Speaker of the National Chemistry Seminar at the 2019 National Chemistry Fair at Yogyakarta State University                                                                   |        | V        |               | 2019        |
|     |                             | Eco-efficiency and sustainable development   | Resource Person for EIA Fundamental Education and Training Institute for Research and Community Service at Diponegoro University                                               | V      |          |               | 2019        |
|     |                             | Environmental and Natural Resources Modeling | Speaker of the Public Lecture of the Graduate School of Hasanuddin University with the theme "Improving the Quality of Research and Writing of Postgraduate Scientific Papers" |        | V        |               | 2019        |
|     |                             | Management of solid waste and B3             | Expert Team of Center for Excellence in Science and Technology Batch II in June 2019                                                                                           |        | V        |               | 2019        |

| No. | Lecturer Name                      | Areas of expertise                | Recognition and Supporting Evidence                                                                                                                                                                                                                                                                                        | Level  |          |               | Year (YYYY) |
|-----|------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |                                    |                                   |                                                                                                                                                                                                                                                                                                                            | Region | National | International |             |
| 1   | 2                                  | 3                                 | 4                                                                                                                                                                                                                                                                                                                          | 5      | 6        | 7             | 8           |
|     |                                    | Environmental management system   | Expert Team of Center for Excellence in Science and Technology Batch II in July 2019                                                                                                                                                                                                                                       |        | V        |               | 2019        |
|     |                                    |                                   | Speaker of the Workshop "Managing the Environment and Guarding Sustainable Capital Development" at the Association of Environmental Professionals                                                                                                                                                                          |        | V        |               | 2019        |
|     |                                    |                                   | Resource Person for Training of Trainer Activities for Non-Degree Environmental Planning in Development: Cooperation between Pusbindiklatren Bappenas-Master of Environmental Science Study Program, Postgraduate School of Diponegoro University                                                                          | V      |          |               | 2019        |
|     |                                    |                                   | Speakers of Non-Degree Education and Training on Environmental Planning in Development 2019 Collaboration between the Pusbindiklatren of Bappenas and the Postgraduate Environmental Science Masters Study Program and the Center for Excellence in Environmental and Sustainability Sciences DRPMI Padjadjaran University |        | V        |               | 2019        |
|     |                                    |                                   | Speaker at the Inaugural Lecture with the Theme "Competence of Graduates Facing the Industrial Revolution 4.0" at Mataram University                                                                                                                                                                                       |        | V        |               | 2019        |
|     |                                    |                                   | Speaker of the Plastic Waste Management Workshop at the Association of Indonesian Muslim Intellectuals                                                                                                                                                                                                                     |        | V        |               | 2019        |
|     |                                    |                                   | Expert Team of Center for Excellence in Science and Technology September 2019                                                                                                                                                                                                                                              |        | V        |               | 2019        |
|     |                                    |                                   | Keynote Speaker on International Conference on Environmental and Science Education (ICESE) 2019                                                                                                                                                                                                                            |        |          | V             | 2019        |
|     |                                    |                                   |                                                                                                                                                                                                                                                                                                                            |        |          |               |             |
| 3   | Prof. Dr. Ir. Azis Nur Bambang, MS | Natural resources and environment | Resource Person in Public Discussion "Back to the sea: Ministry of Marine Affairs and Fisheries Policy on Fishing Governance"                                                                                                                                                                                              | V      |          |               | 2017        |
|     |                                    |                                   | Speaker of the OPD Forum in the framework of Compiling the 2018 Central Java Provincial RKPD with the policy title "Strengthening Food and Energy Security Supported by Agricultural Development and Sustainable Energy Development"                                                                                       |        | V        |               | 2018        |

| No. | Lecturer Name                                           | Areas of expertise                        | Recognition and Supporting Evidence                                                                                                          | Level  |          |               | Year (YYYY) |
|-----|---------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |                                                         |                                           |                                                                                                                                              | Region | National | International |             |
| 1   | 2                                                       | 3                                         | 4                                                                                                                                            | 5      | 6        | 7             | 8           |
| 4   | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.                  | Fisheries and waters                      | Keynote Speaker at the National Seminar "The Effect of Coastal Reclamation on Community Welfare and Environmentally Sustainable Development" |        | V        |               | 2017        |
|     |                                                         |                                           | Resource Person for Marine Protected Area Management : KLHK                                                                                  |        | V        |               | 2017        |
|     |                                                         |                                           | Resource person Reclamation and its impact on coastal ecosystems: Enviroxiland National Seminar                                              |        | V        |               | 2017        |
|     |                                                         |                                           | Resource Person for Coastal and Marine Conservation: KKP Jakarta                                                                             |        | V        |               | 2017        |
|     |                                                         |                                           | KLHS Expert Team-Revised Zoning Plan for Coastal Areas & Small Islands Central Java Province                                                 | V      |          |               | 2017        |
|     |                                                         |                                           | Resource Person for the Department of Marine Affairs and Fisheries of Central Java Province                                                  | V      |          |               | 2017        |
|     |                                                         |                                           | Resource Person for Java Sea Spatial Plan                                                                                                    | V      |          |               | 2017        |
|     |                                                         |                                           | Expert Team for Revised Zoning Plan for Coastal Zone & Small Islands Prov. Central Java                                                      | V      |          |               | 2017        |
|     |                                                         |                                           | Member of the Semarang City Development Advisory Council (DP2K)                                                                              | V      |          |               | 2017        |
| 5   | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | Environmental quality bioindicator        | Member of the Nuclear Association                                                                                                            |        |          | V             | 2017        |
|     |                                                         |                                           | Expert Team- Ministry of Environment RI                                                                                                      |        | V        |               | 2017        |
|     |                                                         |                                           | Expert in PSDA TARU Central Java Province                                                                                                    | V      |          |               | 2017        |
| 6   | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.              | Catalyst                                  | Reviewer of the journal Chemical Engineering Transactions (CET) - Q2                                                                         |        |          | V             | 2017        |
|     |                                                         | Technology and energy management planning | Journal Analytical and Application Pyrolysis (JAAP) reviewer - Q1                                                                            |        |          | V             | 2018        |
| 7   | Prof. Dr. rer. nat. Imam Buchori, S.T.                  | Spatial and environment                   | Invited speaker at The 2nd International Conference on SMART CITY Innovation                                                                 |        |          | V             | 2019        |
|     |                                                         | transportation modeling                   | Journal reviewer on Applied Spatial Analysis and Policy                                                                                      |        |          | V             | 2019        |
|     |                                                         | Geomatics for Sustainable development     | JCIT journal reviewer                                                                                                                        |        |          | V             | 2019        |
|     |                                                         | Location analysis for public facilities   | Reviewer of the Journal of Regional and Rural Development Planning-JP2WD                                                                     |        | V        |               | 2017        |

| No. | Lecturer Name                                      | Areas of expertise                 | Recognition and Supporting Evidence                                                                                                                                                                | Level  |          |               | Year (YYYY) |
|-----|----------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |                                                    |                                    |                                                                                                                                                                                                    | Region | National | International |             |
| 1   | 2                                                  | 3                                  | 4                                                                                                                                                                                                  | 5      | 6        | 7             | 8           |
|     |                                                    | Geomatics of Spatial Planning      | Reviewer of the Journal of Regional and Rural Development Planning-JP2WD                                                                                                                           |        | V        |               | 2018        |
|     |                                                    | Disaster Mitigation                | Mitra Bestari Journal of Sociotechnology Bandung Institute of Technology                                                                                                                           |        | V        |               | 2018        |
| 8   | Prof. Dr. Istadi, S.T., M.T.                       | Catalyst and plasma                | The 3rd International Conference on Chemical and Material Engineering 2018, Semarang-Indonesia, 19 September 2018, title: "A Hybrid Catalytic-Plasma Reactor for Energy and Chemical Conversions". |        |          | V             | 2018        |
| 9   | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.      | Infrastructure development and GIS | Mitra Bestari Journal of Meteorology and Geophysics Volume 20 No 1 Year 2019                                                                                                                       |        | V        |               | 2019        |
| 10  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Membrane technology and materials  | Reviewer Journal of Food Engineering                                                                                                                                                               |        |          | V             | 2017        |
|     |                                                    | Water treatment technology         | Reviewer at ICSCI Journal                                                                                                                                                                          |        |          | V             | 2019        |
| 11  | Prof. Dr. Hadiyanto, S.T, M.Sc.                    | Chemical engineering               | Keynote Speaker at the International Conference on Climate Change, Wangfujing, China                                                                                                               |        |          | V             | 2019        |
|     |                                                    |                                    | Keynote speaker at the 7th European Conference on Renewable Energy System, Madrid/Spain                                                                                                            |        |          | V             | 2019        |
|     |                                                    |                                    | External assessor at Universiti Malaysia Terengganu . Institute of Oceanography and Surroundings                                                                                                   |        |          | V             | 2019        |
|     |                                                    |                                    | External assessor at Faculty of Marine and Informatics Vocational Technology                                                                                                                       |        |          | V             | 2019        |
|     |                                                    |                                    | Reviewer paper at The 2nd International Conference on SMART CITY Innovation                                                                                                                        |        |          | V             | 2019        |
|     |                                                    |                                    | Reviewer of the process engineering journal of the Department of Chemical Engineering, Gadjah Mada University                                                                                      |        | V        |               | 2019        |
|     |                                                    |                                    | Speaker at Upgrading and Assistance Workshop on Journal Governance Towards an International Reputation                                                                                             |        | V        |               | 2019        |

| No. | Lecturer Name              | Areas of expertise                        | Recognition and Supporting Evidence                                                                                                                                                                                         | Level  |          |               | Year (YYYY) |
|-----|----------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |                            |                                           |                                                                                                                                                                                                                             | Region | National | International |             |
| 1   | 2                          | 3                                         | 4                                                                                                                                                                                                                           | 5      | 6        | 7             | 8           |
|     |                            |                                           | Reviewer of the process engineering journal of the Department of Chemical Engineering, Gadjah Mada University                                                                                                               |        | V        |               | 2019        |
| 12  | Dr. Sunarsih, M.Si.        | Environmental statistics                  | Keynote speaker at The 13th International Conference on QIR (Quality in Research) 20 Modeling of Domestic Waste water Treatment Facultative Stabilization Ponds, Organized by :Faculty of Engineering Universitas Indonesia |        |          | V             | 2017        |
| 13  | Dr. Ir. Hermawan, DEA      | Technology and energy management planning | Semarang City Building Expert Team for the 2019 service period                                                                                                                                                              | V      |          |               | 2019        |
| 14  | Dr. Kismartini, M.Si.      | Environmental policy                      | DPP Indonesian Qualitative Research Association Management                                                                                                                                                                  |        | V        |               | 2017        |
| 15  | Dr. Hartuti Purnaweni, MPA | AMDAL, Environmental policy and planning  | Keynote speaker workshop 1 Proper IP Grati Pasuruan "Results of Review of Social Mapping Proper IP Grati Pasuruan Document Draft"                                                                                           |        | V        |               | 2017        |
|     |                            |                                           | Keynote speaker workshop 2 Proper IP Grati Pasuruan "Results of the Review of the Social Mapping Proper IP Grati Pasuruan Document Draft"                                                                                   |        | V        |               | 2017        |
|     |                            |                                           | Member of the Kendeng KLHS Drafting Team (KLHK team-Presidential Staff Office)                                                                                                                                              |        | V        |               | 2017        |
|     |                            |                                           | LSP LH INKALINDO Assessor (Inkalindo Environmental Professional Certification Agency)                                                                                                                                       |        | V        |               | 2017        |
|     |                            |                                           | Keynote speaker Coordination on Environmental Services for Nature Tourism in Production Forests, Bureau of Infrastructure and Natural Resources, Central Java Province                                                      | V      |          |               | 2017        |
|     |                            |                                           | Keynote speaker Talkshow about Caring for Garbage by the Department of Environment and Cleanliness of the City of Semarang Protecting the Beauty of Nature, Mountains and the Sea from Garbage "                            | V      |          |               | 2017        |
|     |                            |                                           | Keynote speaker commemorating Semarang City Environment Day "One with Nature"                                                                                                                                               | V      |          |               | 2017        |
|     |                            |                                           | The resource person in the Good To Great (GtG) Idola Radio 92.6 FM Semarang interview, on Monday 12 June 2017, at 8.35 WIB, about "The Java Sea is increasingly polluted, what are the                                      | V      |          |               | 2017        |

| No. | Lecturer Name                                      | Areas of expertise                                | Recognition and Supporting Evidence                                                                                         | Level  |          |               | Year (YYYY) |
|-----|----------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |                                                    |                                                   |                                                                                                                             | Region | National | International |             |
| 1   | 2                                                  | 3                                                 | 4                                                                                                                           | 5      | 6        | 7             | 8           |
|     |                                                    |                                                   | dangers and how to overcome them"                                                                                           |        |          |               |             |
| 16  | Dr. Ing. Sudarno, S.T., M.Sc.                      | Environmental pollution control                   | Quality Manager in LSP LH INKALINDO (Inkalindo Environmental Professional Certification Institute)                          |        | V        |               | 2017        |
|     |                                                    |                                                   | Expert/Honorary Council for Environmental Engineering Vocational Board – BKTL Indonesian Engineers Association              |        | V        |               | 2017        |
|     |                                                    |                                                   | Quality Manager in LSP LH INKALINDO (Inkalindo Environmental Professional Certification Institute)                          |        | V        |               | 2018        |
|     |                                                    |                                                   | Expert/Honorary Council for Environmental Engineering Vocational Board – BKTL Indonesian Engineers Association              |        | V        |               | 2018        |
|     |                                                    |                                                   | Quality Manager in LSP LH INKALINDO (Inkalindo Environmental Professional Certification Institute)                          |        | V        |               | 2019        |
|     |                                                    |                                                   | Expert/Honorary Council for Environmental Engineering Vocational Board – BKTL Indonesian Engineers Association              |        | V        |               | 2019        |
| 17  | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Geotechnical                                      | The Best Poster Paper at the Second Annual Scientific Meeting of the Indonesian Association of Groundwater Experts          |        | V        |               | 2017        |
|     |                                                    |                                                   | Speakers of Community Preparedness Training in Facing Disasters for the Tangguh Semarang City Partnership Coalition Program |        | V        |               | 2018        |
|     |                                                    |                                                   | Resource Person for Workshop on Development Results in the Energy and Mineral Resources Sector in Central Java              |        | V        |               | 2018        |
| 18  | Dr. Eng. Maryono, S.T., M.T.                       | Environmental risk, disaster and waste management | Keynote Speaker International Conference of 6th Annual Meeting Low Carbon Society Bangkok                                   |        |          | V             | 2017        |
|     |                                                    |                                                   | Keynote Speaker International Conference of Sustainable City in Asia Pacific                                                |        |          | V             | 2017        |
|     |                                                    |                                                   | Keynote Speaker of the National Seminar on Disaster Waste Management                                                        |        |          | V             | 2018        |
|     |                                                    |                                                   | Invited speaker special session of disaster waste management in 3RINC's Bangkok February 2019                               |        | V        |               | 2019        |

| No. | Lecturer Name                  | Areas of expertise | Recognition and Supporting Evidence                                                                                                                                                                  | Level  |          |               | Year (YYYY) |
|-----|--------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|---------------|-------------|
|     |                                |                    |                                                                                                                                                                                                      | Region | National | International |             |
| 1   | 2                              | 3                  | 4                                                                                                                                                                                                    | 5      | 6        | 7             | 8           |
|     |                                |                    | Resource Person for Solid Waste Management in Asia Pacific Islands (SWAPI) Meeting, Tokyo                                                                                                            |        | V        |               | 2019        |
|     |                                |                    | Resource persons in field assessment activities in the context of accreditation at the Environmental Engineering Undergraduate Study Program, Faculty of Engineering, Malang Institute of Technology |        | V        |               | 2019        |
|     |                                |                    | Resource persons in field assessment activities in the context of accreditation at the Environmental Science Masters Study Program, Padang State University Postgraduate Program                     |        | V        |               | 2019        |
|     |                                |                    | Resource persons in field assessment activities in the context of accreditation at the Environmental Engineering S1 Study Program, Faculty of Engineering, Mulawarman University                     |        | V        |               | 2019        |
|     |                                |                    | Semarang Climate Village National Seminar                                                                                                                                                            | V      |          |               | 2018        |
| 19  | Dr. Budi Warsito, S.Si., M.Sc. | Statistics         | The Int. Seminar on Mathematics in Industry & International Conference on Theoretical and Applied Statistics (ISMI-ICTAS) UTM Kuala Lumpur                                                           |        |          | V             | 2018        |
|     |                                |                    | Invited speaker at the National Seminar on Statistics, Tadulako University Palu                                                                                                                      |        | V        |               | 2018        |
|     |                                |                    | Resource Person for Scientific Writing Training with Latex at TNI AL Headquarters Cilangkap                                                                                                          |        | V        |               | 2019        |
|     |                                |                    | Resource Person for Structural Equation Model Training with AMOS at TNI AL Headquarters Cilangkap                                                                                                    |        | V        |               | 2019        |
|     |                                |                    | FGD Resource Person for Increasing Community Initiatives in Climate Change (KemenLHK-UNDIP)                                                                                                          |        | V        |               | 2019        |

Information:

<sup>1)</sup> Recognition/recognition of the expertise/achievement/performance of DTPS can be in the form of:

- become a visiting lecturer or visiting scholar in an accredited A/Excellent study program/college or reputable international study program/college.
- be a keynote speaker/invited speaker at national/international scientific meetings.
- Become an editor or peer reviewer in an accredited national journal/international journal with a reputation in the field according to the field of study program.

- d) become an expert staff/resource person at regional/national/international institutions in fields that are in accordance with the field of study program (for proposers from study programs in Bachelor/Master/Doctoral programs), or become experts/consultants at regional/national institutions/industry levels /international in a field that is in accordance with the field of study program (for applicants from study programs in the Diploma Three/Applied Bachelor/Applied Master/Applied Doctorate program).
- e) received awards for achievements and performance at the regional/national/international level.

<sup>2)</sup> Filled with a check mark V in the appropriate column.

Write down the number of research titles <sup>1)</sup> that are relevant to the field of study program based on the source of funding carried out by DTSP in TS-2 to TS, following the format of Table 3.b.2 below.

Table 3.b.2 DTSP Research

| No.    | Sources of financing               | Number of Titles |      |    | amount |
|--------|------------------------------------|------------------|------|----|--------|
|        |                                    | TS-2             | TS-1 | TS |        |
| 1      | 2                                  | 3                | 4    | 5  | 6      |
| 1      | a) College<br>b) Independent 2)    | 16               | 10   | 3  | 29     |
| 2      | Domestic Institutions (outside PT) | 22               | 19   | 25 | 66     |
| 3      | Overseas Institutions              | 0                | 7    | 1  | 8      |
| amount |                                    | 38               | 36   | 28 | 103    |

Information:

- <sup>1)</sup> Research activities are registered in the unit/institution that manages research activities at the Higher Education/UPPS level.
- <sup>2)</sup> Research with funding sources from DTSP.

Write down the number of titles for Community Service (PkM) <sup>1)</sup> that are relevant to the field of study program based on the source of funding carried out by DTSP in TS-2 to TS, following the format of Table 3.b.3 below.

Table 3.b.3 Community Service (PkM) DTSP

| No.    | Sources of financing               | Number of Titles |      |    | amount |
|--------|------------------------------------|------------------|------|----|--------|
|        |                                    | TS-2             | TS-1 | TS |        |
| 1      | 2                                  | 3                | 4    | 5  | 6      |
| 1      | a) College<br>b) Independent 2)    | 16               | 15   | 19 | 50     |
| 2      | Domestic Institutions (outside PT) | 7                | 13   | 6  | 26     |
| 3      | Overseas Institutions              | 2                | 0    | 1  | 3      |
| amount |                                    | 25               | 28   | 26 | 79     |

Information:

- <sup>1)</sup> PkM activities are recorded in the unit/institution that manages PkM activities at the Higher Education/UPPS level.
- <sup>2)</sup> PkM with funding sources from DTSP.

The following table 3.b.4 is filled out by the proposer from the Study Program in the Bachelor/Master/Doctorate program.

Write down the number of scientific publications with titles relevant to the field of study program produced by DTPS in the last 3 years, following the format of Table 3.b.4 below.

Table 3.b.4 DTPS Scientific Publications

| No.    | Publication Media                   | Number of Titles |      |     | amount |
|--------|-------------------------------------|------------------|------|-----|--------|
|        |                                     | TS-2             | TS-1 | TS  |        |
| 1      | 2                                   | 3                | 4    | 5   | 6      |
| 1      | Unaccredited national journal       | 9                | 10   | 8   | 27     |
| 2      | Accredited national journal         | 70               | 62   | 48  | 180    |
| 3      | International Journal               | 44               | 37   | 12  | 93     |
| 4      | Reputable international journal     | 38               | 71   | 42  | 151    |
| 5      | Regional/local/college seminars     | 8                | 0    | 0   | 0      |
| 6      | National Seminar                    | 13               | 12   | 4   | 29     |
| 7      | International Seminar               | 30               | 57   | 19  | 106    |
| 8      | Writing in regional mass media      | 0                | 0    | 0   | 0      |
| 9      | Writing in the national mass media  | 1                | 0    | 0   | 1      |
| 10     | Writing in international mass media | 0                | 0    | 0   | 0      |
| amount |                                     | 213              | 249  | 133 | 595    |

The following table 3.b.4 is filled out by the proposer from the Study Program in the Diploma Three/Applied Bachelor/Applied Master/Applied Doctoral program.

Write down the number of scientific performances/exhibitions/presentations/publications with themes relevant to the field of study program produced by DTPS in the last 3 years, following the format of Table 3.b.4 below.

Table 3.b.4 DTPS Scientific Shows/exhibitions/presentations/publications

| No. | Publication Media                                                      | Number of Titles |      |    | amount |
|-----|------------------------------------------------------------------------|------------------|------|----|--------|
|     |                                                                        | TS-2             | TS-1 | TS |        |
| 1   | 2                                                                      | 3                | 4    | 5  | 6      |
| 1   | Publications in non-accredited national journals                       |                  |      |    | NA1 =  |
| 2   | Publication in accredited national journals                            |                  |      |    | NA2 =  |
| 3   | Publication in international journals                                  |                  |      |    | NA3 =  |
| 4   | Publication in reputable international journals                        |                  |      |    | NA4 =  |
| 5   | Publication at regional/local/college seminars                         |                  |      |    | NB1 =  |
| 6   | Publication at national seminars                                       |                  |      |    | NB2 =  |
| 7   | Publication at international seminars                                  |                  |      |    | NB3 =  |
| 8   | Performances/exhibitions/presentations in forums at the regional level |                  |      |    | NC1 =  |
| 9   | Performances/exhibitions/presentations in forums at the national level |                  |      |    | NC2 =  |

|        |                                                                |  |  |  |       |
|--------|----------------------------------------------------------------|--|--|--|-------|
| 10     | Performances/exhibitions/presentations in international forums |  |  |  | NC3 = |
| amount |                                                                |  |  |  |       |

The following table 3.b.5 is filled out by the proposer from the study program in the Applied Bachelor/Bachelor/Master/Applied Master/Doctorate/Applied Doctoral program.

Write the title of the DTPS scientific work article cited in the last 3 years by following the format of Table 3.b.5 below. The title of the cited article must be relevant to the field of study program.

Table 3.b.5 DTPS Scientific Works cited in the last 3 years

| No. | Lecturer Name                           | Article Title Citation (Journal, Volume, Year, Number, Page)                                                                                                                         | Number of Citation |
|-----|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1   | 2                                       | 3                                                                                                                                                                                    | 4                  |
| 1   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | In search for sustainable coastal management: A case study of Semarang, Indonesia (IOP Conference Series: Earth and Environmental Science, Vol 55, 2017, No 1, Page 012054)          | 6                  |
| 2   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Sedulur Sikep's Environmental Wisdom in Conservation of North Kendeng Mountains Sukolilo (Advanced Science Letters, Vol 23, 2017, No 3, Page 2504-2506)                              | 5                  |
| 3   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Challenges for the Development of Resilient Coastal Area Program in Timbulsloko Village Sayung District Demak Regency (Advanced Science Letters, Vol 23, 2017, No 3, Page 2582-2583) | 4                  |
| 4   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Settlement adaptation on a seawater tide overflow area at the north part of Semarang, Indonesia (Journal of Flood Risk Management, Vol 10, 2017, No 4, Page 535-545)                 | 3                  |
| 5   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Indigenous Peoples Involment At The Environmental Impact Assessment (EIA) Process in Tabi Mamta Area Of Papua Province (E3S Web of Conferences, Vol 31, 2018, Pg 08017)              | 3                  |
| 6   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Mangrove Cultivation For Dealing With Coastal Abrasion Case Study Of Karangsong (E3S Web of Conferences, Vol 31, 2018, Hal 08028)                                                    | 3                  |
| 7   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Gendering the Climate Change Policy: A Study of Gender Analysis on Semarang's Integrated City Climate Strategy (Advanced Science Letters, Vol 23, 2017, No 3, Page 2556-2558)        | 2                  |
| 8   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Quantification of Greenhouse Gas Emissions from Municipal Solid Waste Recycling and Disposal in Malang City Indonesia (Journal of Ecological Engineering, Vol 18, 2017, No 3)        | 2                  |
| 9   | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Coastal Community Group for Coastal Resilient in Timbulsloko Village, Sayung, Demak Regency, Indonesia (E3S Web of Conferences, Vol 31, 2018, Page 09009)                            | 2                  |

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| 10  | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Analysis on the Implementation of Green Budgeting in Central Java Province (Advanced Science Letters, Vol 23, 2017, No 3, Page 2268-2272)                                                                              | 1                  |
| 11  | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Current Problems of Environmental Policy: Case Studies of Central Java, Indonesia (Advanced Science Letters, Vol 23, 2017, No 3, Pages 2489-2491)                                                                      | 1                  |
| 12  | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | Environmental and Social Dimension of CSR: Case Study of PT PKT Bontang, East Kalimantan, Indonesia (Advanced Science Letters, Vol 23, 2017, No 3, Page 2579-2581)                                                     | 1                  |
| 13  | Prof. Drs. Sudharto P. Hadi, MES, Ph.D. | The Environmental Impact Study Of Micro Hydro Power In Pekalongan Indonesia (E3S Web of Conferences, Vol 31, 2018, Pg 08007)                                                                                           | 1                  |
| 14  | Prof. Dr. Ir. Purwanto. DEA             | Reversible Anaerob-Evapotranspiration Process for Removal of High Strength Ammonium in Leachate from Tropical Landfill (Advanced Science Letters, Vol 23, 2017, No 3, Page 2586-2588)                                  | 4                  |
| 15  | Prof. Dr. Ir. Purwanto. DEA             | Developing Environmentally Friendly Campus at Diponegoro University (Advanced Science Letters, Vol 23, 2017, No 3, Page 2584-2585)                                                                                     | 3                  |
| 16  | Prof. Dr. Ir. Purwanto. DEA             | A kriging method for mapping underground mine air pollution (Advanced Science Letters, Vol 23, 2017, No 3, Page 2329-2332)                                                                                             | 3                  |
| 17  | Prof. Dr. Ir. Purwanto. DEA             | Quantification Of Greenhouse Gas Emissions from Municipal Solid Waste Recycling and Disposal in Malang City Indonesia (Journal of Ecological Engineering, Vol 18, 2017, No 3, pp 74-82)                                | 2                  |
| 18  | Prof. Dr. Ir. Purwanto. DEA             | Characteristics and Household Toxic Hazardous Waste Generation Based on Economic Status and Topographic Regions in Semarang City, Indonesia (Journal of Ecological Engineering, Vol 18, 2017, No 5)                    | 2                  |
| 19  | Prof. Dr. Ir. Purwanto. DEA             | Application of aspen plus for municipal solid waste plasma gasification simulation: case study of Jatibarang Landfill in Semarang Indonesia (Journal of Physics: Conference Series, Vol 1025, 2018, No 1, Page 012006) | 2                  |
| 20  | Prof. Dr. Ir. Purwanto. DEA             | The Potential of KemiriSunan as Feedstock for the Production of Biodiesel (Advanced Science Letters, Vol 23, 2017, No 3, Page 2524-2526)                                                                               | 1                  |
| 21  | Prof. Dr. Ir. Purwanto. DEA             | The Management Of Toxic and Hazardous Waste Materials In The Food Industry (E3S Web of Conferences, Vol 73, 2018, Pg 07020)                                                                                            | 1                  |
| 22  | Prof. Dr. Ir. Purwanto. DEA             | Evaluation of Livestock Waste Management to Energy Biogas (Case Study: Jetak Village, Getasan Sub District) (E3S Web of Conferences, Vol 73, 2018, Page 07013)                                                         | 1                  |
| 23  | Prof. Dr. Ir. Purwanto. DEA             | Managing Campus Energy: Compromising between Rapid Needs and Environmental Requirements (E3S Web of Conferences, Vol 31, 2018, Pg 01003)                                                                               | 1                  |

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| 24  | Prof. Dr. Ir. Purwanto. DEA            | Decreasing of BOD Concentration on Artificial Domestic Wastewater Using Anaerobic Biofilter Reactor Technology (E3S Web of Conferences, Vol 31, 2018, Pg 03016)                                                                       | 1                  |
| 25  | Prof. Dr. Ir. Purwanto. DEA            | Performance of Anaerobic Baffled Reactor with Three Compartments in Removal of COD of Wastewater of Chilly Sauce (E3S Web of Conferences, Vol 31, 2018, Pg 03008)                                                                     | 1                  |
| 26  | Prof. Dr. Ir. Purwanto. DEA            | Water Quality Analysis for Fluoride Concentrations in Fluoridated Drinking Water Distribution Network Systems (ENSAINS JOURNAL, Vol 2, 2019, No 1, Pages 11-18)                                                                       | 1                  |
| 27  | Prof. Dr. Ir. Azis Nur Bambang, MS     | Strategy to Improve the Sustainability Status of Batu City as an Agropolitan Area (Ekosains, Vol 5, 2013)                                                                                                                             | 14                 |
| 28  | Prof. Dr. Ir. Azis Nur Bambang, MS     | Vegetation Structure of Natural Forests and Redegraded Forests in Tesso Nilo National Park (Journal of Environmental Science, Vol 14, 2016, Pages 19-26)                                                                              | 12                 |
| 29  | Prof. Dr. Ir. Azis Nur Bambang, MS     | Water quality of the Garang River, Semarang, Central Java, Indonesia based on the government regulation standard (Journal of Physics: Conference Series, Vol 1025, 2018, No 1, Page 012037)                                           | 8                  |
| 30  | Prof. Dr. Ir. Azis Nur Bambang, MS     | Analysis of heavy metal content of Pb in ballast water tank of commercial vessels in port of Tanjung Emas Semarang, Central Java Province (AIP Conference Proceedings, Vol 1818, 2017, Pg 020061)                                     | 5                  |
| 31  | Prof. Dr. Ir. Azis Nur Bambang, MS     | The Effect of Mangrove on Fish Catch Using Belat at Teluk Pemedas and Sanipah of Kutai Kartanegara Regency, East Kalimantan Province, Indonesia (E3S Web of Conferences, Vol 31, 2018, Page 08029)                                    | 4                  |
| 32  | Prof. Dr. Ir. Sutrisno Anggoro, M. Si. | Relationship of Organic Matter with Water Productivity in Water Hyacinth Covered Areas, Open Waters of Floating Cages in Rawa Pening, Semarang Regency, Central Java (Management of Aquatic Resources Journal, Vol 3, 2014, pp 37-43) | 24                 |
| 33  | Prof. Dr. Ir. Sutrisno Anggoro, M. Si. | Study of Environmental Quality and Suitability of Tanjung Pesona Beach Tourism, Bangka Regency (Undip E-Journal, 2013, Pages 356-362)                                                                                                 | 20                 |
| 34  | Prof. Dr. Ir. Sutrisno Anggoro, M. Si. | Potential harmful algal blooms (HABs) in Segara Anakan lagoon, Central Java, Indonesia (E3S Web of Conferences, Vol 47, 2018, Pg 04010)                                                                                               | 1                  |
| 35  | Prof. Dr. Ir. Sutrisno Anggoro, M. Si. | Environmental Study on Phytoplankton in Garang Watershed, Central Java, Indonesia and Its Water Quality (IOP Conference Series: Earth and Environmental Science, Vol 246, 2019, No 1, Page 012070)                                    | 1                  |

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| 36  | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.                  | Evaluation of the Interaction Among Microalgae Spirulina sp, Plastics Polyethylene Terephthalate and Polypropylene in Freshwater Environment (Journal of Ecological Engineering, Vol 20, 2019, No 6)                 | 1                  |
| 37  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | Bioaccumulation of Pb, Cd, Cu, and Cr by Porphyridium cruentum (SF Gray)(International Journal of Marine Science, Vol 3, 2013, pp 212-213)                                                                           | 24                 |
| 38  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | The Trophic Status of Lake Rawapening and Its Management Solutions (Journal of Science and Mathematics, Vol 18, 2010, Pages 158-169)                                                                                 | 21                 |
| 39  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | The Diatom stratigraphy of Rawapening Lake, Implying Eutrophication History (American Journal of Environmental Science, Vol 8, 2012, pp. 334-344)                                                                    | 19                 |
| 40  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | Diatoms and Water Quality of Telaga Warna Dieng, Java Indonesia ( IOP Conference Series: Earth and Environmental Science, Vol 55, 2017, No 1, Page 012051)                                                           | 4                  |
| 41  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | Diatom assemblage in the 24 cm upper sediment associated with human activities in Lake Warna Dieng Plateau Indonesia (Environmental Technology & Innovation, Vol 10, 2018, Pages 314-323)                            | 3                  |
| 42  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | The evaluation of water hyacinth (Eichhornia crassiper) control program in Rawapening Lake, Central Java Indonesia (IOP Conference Series: Earth and Environmental Science, Vol 142, 2018, No 1, Page 012016)        | 2                  |
| 43  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | Analysis of environmental carrying capacity based on land balance in Solok regency, West Sumatra (Advanced Science Letters Vol 23, 2017, No 3, Page 2407-2409)                                                       | 2                  |
| 44  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | The phycoremediation of textile wastewater discharge by chlorella pyrenoidosa H. Chick, arthrospira platensis gomont, and chaetoceros calcitrans (Paulson) H. Takano (AACL Bioflux, Vol 10, 2017, No 3, Hal 640-651) | 1                  |
| 45  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | Implementation of State Obligations and Responsibility Ensuring the Availability of Clean Water in Karimunjawa Islands (E3S Web of Conferences, Vol 31, 2018, Pg 09004)                                              | 1                  |
| 46  | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc | Shoreline and mangrove analysis along semarang-demak, Indonesia for sustainable environmental management (JPPII, Vol 8, 2019, No 1, Pages 1-11)                                                                      | 1                  |
| 47  | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.              | Optimization of Direct Conversion of Methane to Liquid Fuels Over Cu Loaded W/ZSM-5 Catalyst (Fuel, Vol 83, 2004, pp 487-494)                                                                                        | 94                 |
| 48  | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.              | Electro-catalysis system for biodiesel synthesis from palm oil over dielectrict-barrier discharge plasma reactor (BCREC, Vol 9, 2014, Pg 110-120)                                                                    | 16                 |

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| 50  | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D. | The Potential of KemiriSunan as Feedstock for the Production of Biodiesel (Advanced Science Letters, Vol 23, 2017, No 3, Page 2524-2526)                                                                                                                                | 1                  |
| 51  | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D. | Effect of Doping Concentration on Emission Intensity of Luminescent Material ZnO: Zn (Journal of Physics and Its Applications, Vol 14, 2018, No 1, pp 20-23)                                                                                                            | 1                  |
| 52  | Prof. Dr. rer. nat. Imam Buchori, S.T.     | Sustainable metropolitan development: towards an operational model for the Semarang metropolitan region (The International Journal of Environmental, Cultural, Economic, and Social Sustainability, Vol 7, 2011, pp 301-323)                                            | 16                 |
| 53  | Prof. Dr. rer. nat. Imam Buchori, S.T.     | A predictive model to assess spatial planning in addressing hydro-meteorological hazards: A case study of Semarang City, Indonesia (International journal of disaster risk reduction, Vol 27, 2018, pp 415-426)                                                         | 14                 |
| 54  | Prof. Dr. rer. nat. Imam Buchori, S.T.     | Adaptation to coastal flooding and inundation: Mitigations and migration pattern in Semarang City, Indonesia (Ocean & Coastal Management, Vol 163, 2018, pp 445-455)                                                                                                    | 12                 |
| 55  | Prof. Dr. rer. nat. Imam Buchori, S.T.     | An empricial examination of sustainable metropolitan development in Semarang City, Indonesia ( Australian Planner, Vol 53, 2016, Pages 163-177)                                                                                                                         | 11                 |
| 56  | Prof. Dr. rer. nat. Imam Buchori, S.T.     | The Impact of Urbanization to Forest Degradation in Metropolitan Semarang: A Preliminary Study (IOP Conference Series: Earth and Environmental Science, Vol 123, 2018, No 1, Page 012011)                                                                               | 8                  |
| 57  | Prof. Dr. Istadi, S.T., M.T.               | Preliminary Study of Development Surfactant Sodium Ligno Sulfonate (SLS) from Waste Biomass in the Application of Enhanced Oil Recovery (EOR) Yield Increase in Production for Crude Oil Indonesia (Advanced Science Letters, Vol 23, 2017, No 6, Page 5803-5805)       | 4                  |
| 58  | Prof. Dr. Istadi, S.T., M.T.               | Modeling of heating value of municipal solid waste based on ultimate analysis using multiple stepwise regression linear in Semarang (ARPN Journal of Engineering and Applied Sciences, Vol 12, 2017, No 9, Hal 2870-2876)                                               | 4                  |
| 59  | Prof. Dr. Istadi, S.T., M.T.               | Effects of weight hourly space velocity and catalyst diameter on performance of hybrid catalytic-plasma reactor for biodiesel synthesis over sulphated zinc oxide acid catalyst (Bulletin of Chemical Reaction Engineering & Catalysis, Vol 12, 2017, No 2, Pg 227-234) | 2                  |
| 60  | Prof. Dr. Istadi, S.T., M.T.               | Synthesis of biodiesel on a hybrid catalytic-plasma reactor over K <sub>2</sub> O/CaO-ZnO catalyst (Scientific Study & Research. Chemistry & Chemical                                                                                                                   | 1                  |

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| 61  | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.      | Waves induce sediment transport at the coastal region of Timbulsloko, Demak (IOP Conference Series: Earth and Environmental Science, Vol 55, 2017, Page 012048)                                                                         | 5                  |
| 62  | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.      | The use of water exchange for feeding rate and growth promotion of shortfin eel <i>Anguilla bicolor bicolor</i> in recirculating water system (IOP Conference Series: Earth and Environmental Science, Vol 55, 2017, No 1, Page 012015) | 4                  |
| 63  | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.      | Analysis of ocean waves in 3 sites potential areas for renewable energy development in Indonesia (Ocean Engineering, Vol 165, 2018, Pages 34-42)                                                                                        | 4                  |
| 64  | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.      | Identification of wave energy potential with floating oscillating water column technology in Pulau Baai Beach, Bengkulu (IOP Conference Series: Earth and Environmental Science, Vol 55, 2017, No 1, Page 012040)                       | 3                  |
| 65  | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.      | Deformation and Stability Analysis of Breakwater Structure in Morosari Coast, Demak, Central Java (IOP Conference Series: Earth and Environmental Science, Vol 145, 2018, No 1, Page 012081)                                            | 1                  |
| 66  | Prof. Dr. Denny Nugroho Sugianto, S.T., M.Si.      | Climate Change In Indonesia (Case Study: Medan, Palembang, Semarang) (E3S Web of Conferences, Vol 31, 2018, Page 09017)                                                                                                                 | 1                  |
| 67  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Separation of antiscalants from reverse osmosis concentrates using nanofiltration (Desalination, Vol 429, 2018, Hal 105-110)                                                                                                            | 9                  |
| 68  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Ionic conductivity and cycling stability improvement of PVDF/Nano-clay using PVP as polymer electrolyte membranes for LiFePo4 batteries (Membranes, Vol 8, 2018, No 3, Pg 36)                                                           | 7                  |
| 69  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Experimental study of the natural organic matters effect on the power generation of reverse electrodialysis (International Journal of Energy Research, Vol 41, 2017, No 10, Hal 1474-1486)                                              | 6                  |
| 70  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Searching for ultrafiltration membrane molecular weight cut-off for water treatment in recirculating aquaculture system (Journal of Water Process Engineering, Vol 21, 2018, Page 133-142)                                              | 5                  |
| 71  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Wastewater treatment by nanofiltration membranes (IOP Conference Series: Earth and Environmental Science, Vol 142, 2018, No 1, Page 012017)                                                                                             | 4                  |
| 72  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Enhanced Enzymatic Hydrolysis of Chitosan by Surfactant Addition ( Periodica Polytechnica Chemical Engineering, Vol 62, 2018, No 3, Hal 286-291)                                                                                        | 2                  |

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| 73  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Hydrolysis of chitosan using cellulase enzyme with addition of polyethylene Glycol ( Advances Science Letters, Vol 23, 2017, No 6, Hal 5675-5677)                                                                                                                                         | 2                  |
| 74  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Performance Evaluation of Flocculation and Membrane Filtration for Microalgae Harvesting (Pertanika Journal of Science & Technology, Vol 25, 2017, No 4, Page 1159-1172)                                                                                                                  | 1                  |
| 75  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Polymeric Membrane Made of Cellulose Isolated from Tropical Water Hycinth Blended with Chitosan (IOP Conference Series: Earth and Environmental Science, Vol 55, 2017, No 1, Page 012004)                                                                                                 | 1                  |
| 76  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Response surface method (RSM) for optimization of ionic conductivity of membranes polymer electrolyte poly (vinylidene fluoride) (PVDF) with polyvinyl pyrrolidone (PVP) as pore forming agent (IOP Conference Series: Materials Science and Engineering, Vol 206, 2017, No 1 , p.012052) | 1                  |
| 77  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | microwave irradiation-assisted chitosan hydrolysis using cellulase enzyme (Bulletin of Chemical Reaction Engineering & Catalysis, Vol 13, 2018, No 3, Hal 466-474)                                                                                                                        | 1                  |
| 78  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | The influence of Photoinitiator on the Characteristics of Electrospun Poly (vinyl alcohol)/Chitosan Based Nanofibers (IOP Conference Series: Materials Science and Engineering, Vol 367, 2018, No 1, Hal 012028)                                                                          | 1                  |
| 79  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Characterization of Coal Acid Water in Void Pools of Coal Mining in South Kalimantan (E3S Web Conference, Vol 73, 2018, Page 05030)                                                                                                                                                       | 1                  |
| 80  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Influence of microwave irradiation on extraction of chitosan from shrimp shell waste (Reactor, Vol 18, 2018, No 1, Page 45-50)                                                                                                                                                            | 1                  |
| 81  | Prof. Dr. rer. nat. Heru Susanto, S.T., M.M., M.T. | Variability of TOC and DBPs (THMs and HAA5) in drinking water Source and Dstribution System in Drought Season: the North Iran Case Study (Environmental Technology, Vol , 2019, No , Pages 1-28)                                                                                          | 1                  |
| 82  | Prof. Dr. Hadiyanto, S.T., M.Sc.                   | Multi-criteria decision making (MCDM) approach for selecting solar plants site and technology: A review (International Journal of Renewable Energy Development, Vol 8, 2019, No 1, Page 15-25)                                                                                            | 8                  |
| 83  | Prof. Dr. Hadiyanto, S.T., M.Sc.                   | The development of heterogeneous catalyst C/CaO/NaOH from waste of green mussel shell (Perna varidis) for biodiesel synthesis (Journal of environmental chemical engineering, Vol 5, 2017, No 5, Hal 4559-4563)                                                                           | 8                  |
| 84  | Prof. Dr. Hadiyanto, S.T., M.Sc.                   | Evaluation of growth and biomass productivity of marine microalga Nannochloropsis sp. cultured in palm oil mill effluent (POME) (Philippine J Sci, Vol 146, 2017, Pg 355-360)                                                                                                             | 5                  |
| 85  | Prof. Dr. Hadiyanto, S.T., M.Sc.                   | Modeling and PSO optimization of Humidifier-Dehumidifier desalination (international journal of renewable energy development (International                                                                                                                                               | 4                  |

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| 87  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Production of Biodiesel from Mixed Waste Cooking and Castor Oil (MATEC Web of Conferences, Vol 156, 2018, Page 03056)                                                                                      | 2                  |
| 88  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Response surface optimization of lipid and protein extractions from spirulina platensis using ultrasound assisted osmotic shock method (Food Science and biotechnology, Vol 27, 2018, No 5, Hal 1361-1368) | 1                  |
| 89  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Bioelectricity Production from Microalgae-Microbial Fuel Cell Technology (MMFC) (MATEC Web of Conferences, Vol 156, 2018, Pg 01017)                                                                        | 1                  |
| 90  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Pretreatment of Starch-Free Sugar Palm Trunk (Arenga pinnata) to Enhance Saccharification in Bioethanol Production (MATEC Web of Conferences, Vol 156, 2018, Pg 01003)                                     | 1                  |
| 91  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Climate Change In Indonesia (Case Study: Medan, Palembang, Semarang) (E3S Web of Conferences, Vol 31, 2018, Page 09017)                                                                                    | 1                  |
| 92  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Find the future from the past: Paleolimnology in Indonesia (E3S Web of Conferences, Vol 31, 2018, Page 08002)                                                                                              | 1                  |
| 93  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Biogas Production from Rice Husk Waste by using Solid State Anaerobic Digestion (SSAD) Method (E3S Web of Conferences, Vol 31, 2018, Hal 02007)                                                            | 1                  |
| 94  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Application of Pesticide Phytoremediation in Irrigated Rice Fields System Using Water Hyacinth (Eichhornia crassipes) Plants (E3S Web of Conferences, Vol 31, 2018, Pg 03019)                              | 1                  |
| 95  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Application of Life Cycle Assessment (LCA) in Sugar Industries (E3S Web of Conferences, Vol 31, 2018, Pg 04011)                                                                                            | 1                  |
| 96  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Ozone Application for Tofu Waste Water Treatment and Its Utilization for Growth Medium of Microalgae Spirulina sp (E3S Web of Conferences, Vol 31, 2018, Pg 03002)                                         | 2                  |
| 97  | Prof. Dr. Hadiyanto, S.T., M.Sc. | Thermal degradation kinetics of phycocyanin encapsulation as an antioxidant agent (IOP Conference Series: Earth and Environmental Science, Vol 102, 2018, No 1, Page 012055)                               | 1                  |
| 98  | Prof. Dr. Hadiyanto, S.T., M.Sc. | flare gas recovery as one of the clean development mechanism (CDM) practices (IOP Conference Series: Earth and Environmental Science, Vol 200, 2019, No 1, Page 012023)                                    | 1                  |

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| 99  | Dr. Dra. Sunarsih, M.Si.   | Mathematical modeling regime steady state for domestic wastewater treatment facultative stabilization ponds (Journal of Urban and Environmental Engineering, Vol 7, 2013, Hal 293-301)                                                                   | 7                  |
| 100 | Dr. Dra. Sunarsih, M.Si.   | Modeling of domestic wastewater treatment facultative stabilization ponds (International Journal of Technology, Vol 4, 2015, pp 689-698)                                                                                                                 | 4                  |
| 101 | Dr. Dra. Sunarsih, M.Si.   | System Dynamic Modeling and Simulation for Cultivation of Forest Land: Case Study of Perum Perhutani, Central Java, Indonesia (Journal of Ecological Engineering, Vol 18, 2017, No 4)                                                                    | 1                  |
| 102 | Dr. Ir. Hermawan, DEA      | Arduino UNO-based room light intensity controller uses the fuzzy logic method (Journal of Control and Instrumentation Automation, Vol 7, 2017, No 2, Page 73)                                                                                            | 8                  |
| 103 | Dr. Ir. Hermawan, DEA      | Development of Problem Solving Skills Test Instruments on Vibration, Waves, and Sound Materials (Journal of Research & Development of Physics Education. Vol 3, 2017, No 2, Pages 157-166)                                                               | 6                  |
| 104 | Dr. Ir. Hermawan, DEA      | Geotourism: Solutions for Using Environmentally Friendly Geological Wealth (Journal of Applied Tourism Science, Vol 3, 2018, No 3, Pages 391-408)                                                                                                        | 4                  |
| 105 | Dr. Ir. Hermawan, DEA      | Optimization of Recloser Placement to Minimize SAIFI and SAIDI Values on PDP Feeders 04 Using Particle Swarm Optimization (PSO) (TRANSIENT, Vol 5, 2017, No 3, Page 315-319)                                                                             | 3                  |
| 106 | Dr. Ir. Hermawan, DEA      | Thermal evaluation for exposed stone house with quantitative and qualitative approach in mountainous area, Wonosobo, Indonesia (IOP Conference Series: Earth and Environmental Science, Vol 99, 2017, No 1, Page 012017)                                 | 1                  |
| 107 | Dr. Ir. Hermawan, DEA      | Synthesis of Chitosan Silica Membrane From Bagasse Ash (Al-Kimia, Vol 5, 2017, No 1, Pages 81-88)                                                                                                                                                        | 1                  |
| 108 | Dr. Rini Budiastuti, M.Sc. | The effect of the application of wanamina on the environmental quality of ponds and shrimp growth in the city of Semarang (Undip E-Journal, 2013, pp. 374-377)                                                                                           | 8                  |
| 109 | Dr. Rini Budiastuti, M.Sc. | The application of silvofishery on tilapia ( <i>Oreochromis niloticus</i> ) and milkfish ( <i>Chanos chanos</i> ) fattening within mangrove ecosystem of northern coastal area of Semarang City (Journal of Coastal Development, vol 6, 2013, pp. 89-93) | 7                  |
| 110 | Dr. Rini Budiastuti, M.Sc. | Models and Strategies for Optimizing the Management of Wanamina Ponds with Environmental Insight on the Semarang Coast (Undip E-journal, 2013)                                                                                                           | 4                  |
| 111 | Dr. Rini Budiastuti, M.Sc. | Nutrient accumulation in the sediment of silvofishery ponds in Semarang (Makara Journal of Science, 2018, Pages 195-201)                                                                                                                                 | 2                  |

| No. | Lecturer Name                    | Article Title Citation (Journal, Volume, Year, Number, Page)                                                                                                                                                                    | Number of Citation |
|-----|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1   | 2                                | 3                                                                                                                                                                                                                               | 4                  |
| 112 | Dr. Kismartini, M.Si.            | Community-Based Waste Management Through Waste Banks (Indonesian Journal of Conservation, Vol 4, 2015)                                                                                                                          | 5                  |
| 113 | Dr. Kismartini, M.Si.            | Evaluation of the Rain Water Harvesting Program of the Semarang City Environment Agency (GEMA PUBLICA, Vol 3, 2018, No 1)                                                                                                       | 1                  |
| 114 | Dr. Kismartini, M.Si.            | Mining Permits and Supervision Implementation Policy within the Framework of Environmental Management in Bandar Lampung (Advanced Science Letters, Vol 23, 2017. Pages 2567-2569)                                               | 1                  |
| 115 | Dr. Hartuti Purnaweni, MPA       | The effect of mangrove on fish catch using belat at Teluk Pemedas and Sanipah of Kutai Kartanegara regency, east Kalimantan province, Indonesia (E3S Web of Conferences, Vol 31, 2018, Hal 08029)                               | 4                  |
| 116 | Dr. Hartuti Purnaweni, MPA       | Mangrove Cultivation Community Based in Karangsong, Indramayu, West Java (IOP Conference Series: Earth and Environmental Science, Vol 145, 2018, No 1, Page 012139)                                                             | 2                  |
| 117 | Dr. Hartuti Purnaweni, MPA       | The land use change from agricultural to non-agricultural in Bungo Regency, Jambi Province, Indonesia (E3S Web of Conferences, Vol 31, 2018, Page 09019)                                                                        | 2                  |
| 118 | Dr. Hartuti Purnaweni, MPA       | Environmental Analysis of The Impacts of Batik Waste Water Pollution on The Quality of Dug Well Water in The Batik Industrial Center of Jenggot Pekalongan City (E3S Web of Conferences, Vol 31, 2018, Pg 09008)                | 2                  |
| 119 | Dr. Hartuti Purnaweni, MPA       | Implementation of the Policy for the Assessment of Company Performance Ratings in Environmental Management (PROPER) in the City of Semarang (Journal of Public Policy and Management Review, Vol 8, 2018, Vol 1, Pages 128-141) | 1                  |
| 120 | Dr. Ir. Setia Budi Sasongko, DEA | Water Quality Analysis and Water Pollution Control Strategies Blukar River Kendal Regency (Journal of Precipitation: Communication Media and Development of Environmental Engineering, Vol 9, 2012, pp 64-71)                   | 71                 |
| 121 | Dr. Ir. Setia Budi Sasongko, DEA | The effect of COD/N ratios and pH control to biogas production from vinasse (International Journal of Biochemistry Research & Review, Vol 3, 2013, pp 401-413)                                                                  | 24                 |
| 122 | Dr. Ir. Setia Budi Sasongko, DEA | Production of Spirulina platensis biomass using digested vinasse as cultivation medium (Trends in Applied Sciences Research, Vol 9, 2014, pp 93-102)                                                                            | 16                 |
| 123 | Dr. Ir. Setia Budi Sasongko, DEA | Kinetic Study on Ultrasound Assisted Biodiesel Production from Waste Cooking Oil (Journal of Engineering and Technologies Sciences, Vol 47, 2015, pp 374-388)                                                                   | 5                  |
| 124 | Dr. Ir. Setia Budi Sasongko, DEA | Enhancement of energy efficiency and food product quality using adsorption dryer with zeolite (International journal of renewable energy development, Vol 2, 2013, Page 81)                                                     | 4                  |

| No. | Lecturer Name                             | Article Title Citation (Journal, Volume, Year, Number, Page)                                                                                                                                                                                                              | Number of Citation |
|-----|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1   | 2                                         | 3                                                                                                                                                                                                                                                                         | 4                  |
| 125 | Dr. Fuad Muhammad, S.Si., M.Sc.           | Ecotourism Potential in Mangrove Area, Mororejo Village, Kendal Regency (Bioscience: Journal of Biology & Biology Education, Vol 7, 2015)                                                                                                                                 | 11                 |
| 126 | Dr. Fuad Muhammad, S.Si., M.Sc.           | Study of Ecotourism Supporting Capacity of the Blanakan Mangrove Forest, Subang, West Java (Bioma: Biological Scientific Periodic, Vol 14, 2010, Pages 64-72)                                                                                                             | 4                  |
| 127 | Dr. Fuad Muhammad, S.Si., M.Sc.           | Planning of Educational Tourism Activities in the Rinjani Lombok Geopark Area Based on Environmental Carrying Capacity (Aik Berik Regional Study) (Undip Journal of Environmental Science, Vol 14, 2016, Pages 103-107)                                                   | 3                  |
| 128 | Dr. Fuad Muhammad, S.Si., M.Sc.           | Carrying capacity of Kedungombo reservoir for net cage culture (E3S Web of Conferences, Vol 73, 2018, Pg 03018)                                                                                                                                                           | 1                  |
| 129 | Dr. Fuad Muhammad, S.Si., M.Sc.           | The study of environmental carrying capacity for sustainable tourism in Telaga Warna Telaga Pengilon Nature Park, Dieng Plateau, Central Java, (IOP Conference Series: Earth and Environmental Science, Vol 70, 2017, No 1, Page 012003)                                  | 1                  |
| 130 | Dr. Ing. Sudarno, S.T., M.Sc.             | Comparison of three sequential extraction procedures to describe metal fractionation in anaerobic granular sludges (Talanta, Vol 65, 2005, pp 549-558)                                                                                                                    | 150                |
| 131 | Dr. Ing. Sudarno, S.T., M.Sc.             | Effect of varying salinity, temperature, ammonia, and nitrous acid concentrations on nitrification of saline wastewater in fixed-bed reactors (Bioresource Technology, vol 102, 2011, Pg 5665-5673)                                                                       | 110                |
| 132 | Dr. Ing. Sudarno, S.T., M.Sc.             | Effect of dilution and stirring on biogas production in anaerobic digestion using cow rumen extract as a starter and kitchen waste as a substrate (Journal of Precipitation: Communication Media and Development of Environmental Engineering, Vol 13, 2016, Pages 88-93) | 7                  |
| 133 | Dr. Ing. Sudarno, S.T., M.Sc.             | Effect of chemical compounds in tidal water on asphalt pavement mixture (International Journal of Pavement Research and Technology Vol 10, 2017, No 2, Page 122-130)                                                                                                      | 6                  |
| 134 | Dr. Ing. Sudarno, S.T., M.Sc.             | Removal of Fe, Color, and Turbidity in Peat Water Using Electrocoagulation Method (Journal of Environmental Engineering, Vol 6, 2017, No 2, Pages 1-12)                                                                                                                   | 1                  |
| 135 | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D. | Experimental evaluation of construction waste and ground granulated blast furnace slag as alternative soil stabilizers (Geotechnical and Geological Engineering, Vol 34, 2016, pp. 1707-1722)                                                                             | 16                 |
| 136 | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D. | Black carbon concentration in kitchens using fire-wood and kerosene fuels (Journal of Applied Sciences in Environmental Sanitation, Vol 4, 2009, pp 55-62)                                                                                                                | 14                 |

| No. | Lecturer Name                                      | Article Title Citation (Journal, Volume, Year, Number, Page)                                                                                                                                                                       | Number of Citation |
|-----|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1   | 2                                                  | 3                                                                                                                                                                                                                                  | 4                  |
| 137 | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D.          | Study on the potential of municipal waste composting as an alternative to waste management in landfill using EM4 (Effective Microorganism) activator (Journal of Precipitation, Vol 1, 2006, pp. 25-30)                            | 14                 |
| 138 | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D.          | Distribution Pattern of Nitrate and Phosphate with Aquatox2.2 Model and Relationship to Water Hyacinth Plants on Lake Surface (Case Study of Rawa Pening Lake, Semarang Regency) (Journal of Precipitation, Vol 3, 2007, pp 58-66) | 11                 |
| 139 | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D.          | Cobalt-exchanged natural zeolite catalyst for catalytic oxidation of phenolic contaminants in aqueous solutions (Journal of Water Process Engineering, Vol 12, 2016, pp 47-51)                                                     | 8                  |
| 140 | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D.          | Study of Clean Water Supply System Sub-System of Bribin in Gunungkidul Regency (Journal of Precipitation: Communication Media and Development of Environmental Engineering, Vol 10, 2013, Pages 18-29)                             | 8                  |
| 141 | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D.          | Leaves Composting Process and the Influence of Rumen Content and Bran Addition (MATEC Web of Conferences, Vol 159, 2018, Pg 01033)                                                                                                 | 6                  |
| 142 | Mochamad Arief B., S.T., M.Eng.Sc., Ph.D.          | Characteristic of total suspended particulate (TSP) containing Pb and Zn at solid waste landfill (Journal of Physics: Conference Series, Vol 1022, 2018, No 1, Hal 012030)                                                         | 1                  |
| 143 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Developing groundwater conservation zone of unconfined aquifer in Semarang, Indonesia (IOP Conference Series: Earth and Environmental Science, Vol 55, 2017, No 1, Page 012011)                                                    | 4                  |
| 144 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Assessment of Groundwater Quality to Achieve Sustainable Development in Semarang Coastal Areas (IOP Conference Series: Earth and Environmental Science, Vol 79, 2017, No 1, Page 012001)                                           | 3                  |
| 145 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Application of Geospatial Analysis for Determination of Groundwater Recharge Zones in Wonosobo CAT, Central Java Province (TATALOKA, Vol 19, 2017, No 3, 175-191)                                                                  | 1                  |
| 146 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Stakeholder Interactions Model of Groundwater Management In Semarang City/Indonesia (International Journal, Vol 15, 2018, No 47, pp 170-177)                                                                                       | 1                  |
| 147 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Application of Spatial Analysis for Determination of Recharge Zone and Groundwater Release Zone, Karangobar Groundwater Basin (CAT), Central Java Province (Journal of Environmental Science, Vol 16, 2018, No 2, Pages 162-172)   | 1                  |
| 148 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Mapping the Water Usage Behavior of Presto Milkfish Processing Industries in Semarang City (E3S Web of Conferences, Vol 73, 2018, Page 03020)                                                                                      | 1                  |

| No. | Lecturer Name                                      | Article Title Citation (Journal, Volume, Year, Number, Page)                                                                                                                                                                                                    | Number of Citation |
|-----|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1   | 2                                                  | 3                                                                                                                                                                                                                                                               | 4                  |
| 149 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Study Of Spatial Effect Distribution Of Groundwater Quality On Rob Disaster In Semarang City (E3S Web of Conferences, Vol 73, 2018, Page 03027)                                                                                                                 | 1                  |
| 150 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Groundwater Quality Analysis in Nusakambangan Groundwater Basin/Indonesia (E3S Web of Conferences, Vol 73, 2018, Pg 04024)                                                                                                                                      | 1                  |
| 151 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Spatial Analysis to Determine Groundwater Recharge Area in Purworejo Regency, Central Java Province/Indonesia (E3S Web of Conferences, Vol 73, 2018, Pg 03025)                                                                                                  | 1                  |
| 152 | Dr. rer. nat. Thomas Triadi Putranto, S.T., M.Eng. | Application of Cluster Analysis and Principal Component Analysis for Assessment of Groundwater Quality—A Study in Semarang, Central Java, Indonesia (IOP Conference Series: Earth and Environmental Science, Vol 248, 2019, No 1, Page 012063)                  | 1                  |
| 153 | Dr. Drs. Jafron Wasiq Hidayat, M.Sc.               | Assessment of water quality using macrobenthos as bioindicator and its application on Abundance-Biomass Comparison (ABC) curves (International Journal of Science and Engineering, Vol 8, 2014)                                                                 | 9                  |
| 154 | Dr. Drs. Jafron Wasiq Hidayat, M.Sc.               | Turbidity Based Benthic Mollusca Community Structure in Tanjung Emas Port Waters Semarang (Bioma, Vol 6, 2004, pp 53-56)                                                                                                                                        | 7                  |
| 155 | Dr. Drs. Jafron Wasiq Hidayat, M.Sc.               | Potential Test of Eupatorium odoratum Leaf Extract as Alternative Insecticide Material: Toxicity and Anti-feeding Effect Against Heliothis armigera Hubner Larvae (Journal of Science and Mathematics, Faculty of Mathematics and Natural Sciences Undip, 2000) | 7                  |
| 156 | Dr. Drs. Jafron Wasiq Hidayat, M.Sc.               | Methods of Controlling Wideng (Sesarma spp) of Mangrove Seedling Pests through Crab Cultivation Activities of Mangrove Syclla spp (Bioma: Biological Scientific Periodic, Vol 13, 2011, Pages 25-33)                                                            | 4                  |
| 157 | Dr. Drs. Jafron Wasiq Hidayat, M.Sc.               | Phytoplankton community structure as the basis for managing the quality of mangrove coastal waters at the Tugurejo Site, Semarang (Bioma: Biological Scientific Periodic, Vol 19, 2017, No 2, Pages 164-169)                                                    | 2                  |
| 158 | Dr. Eng. Maryono, S.T., M.T.                       | Solidwaste management in Bangkok at 2011 Thailand floods (Journal of Disaster Research, Vol 8, 2013, pp 456-464)                                                                                                                                                | 12                 |
| 159 | Dr. Eng. Maryono, S.T., M.T.                       | Theorizing spatial dynamics of metropolitan regions: A preliminary study in Java and Madura Islands, Indonesia (Sustainability cities and society, Vol 35, 2017, pp 468-482)                                                                                    | 7                  |
| 160 | Dr. Eng. Maryono, S.T., M.T.                       | Motivation and Perception of Tourists as Push and Pull Factors to Visit National Park (E3S Web of Conferences, Vol 31, 2018, Pg 08022)                                                                                                                          | 4                  |
| 161 | Dr. Eng. Maryono, S.T., M.T.                       | Adaptation to coastal flooding and inundation: Mitigations and migration pattern in Semarang City, Indonesia (Ocean & Coastal Management, Vol 163, 2018, pp 445-455)                                                                                            | 3                  |

| No. | Lecturer Name                 | Article Title Citation (Journal, Volume, Year, Number, Page)                                                                                                                                                     | Number of Citation |
|-----|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1   | 2                             | 3                                                                                                                                                                                                                | 4                  |
| 162 | Dr. Eng. Maryono, S.T., M.T.  | Analysis of Urban Forest Needs as Anthropogenic (CO <sub>2</sub> ) Gas Absorbent in Semarang City (E3S Web of Conferences, Vol 31, 2018, Page 07007)                                                             | 1                  |
| 163 | Dr. Eng. Maryono, S.T., M.T.  | Comparing Value of Urban Green Space Using Contingent Valuation and Travel Cost Methods (E3S Web of Conferences, Vol 31, 2018, Pg 07008)                                                                         | 1                  |
| 164 | Dr. Budi Warsito, S.Si., M.Si | Clustering of Industrial Sector Air Pollution Data in Central Java with the Kohonen Neural Network (Journal of Precipitation, vol 4, 2008, Pages 1-6)                                                            | 7                  |
| 165 | Dr. Budi Warsito, S.Si., M.Si | Mixed Geographically Weighted Regression Using Adaptive Bandwidth to Modeling of Air Polluter Standard Index (ARPN Journal of Engineering and Applied Sciences, Vol 12, 2017, No 15, pp 4477-4482)               | 4                  |
| 166 | Dr. Budi Warsito, S.Si., M.Si | Effect of Voltage and Time on Treatment of Uranium and Thorium Radioactive Waste by Electrocoagulation Process (Journal of Nuclear Forum, Vol 10, 2017, pp 102-107)                                              | 4                  |
| 167 | Dr. Budi Warsito, S.Si., M.Si | General Regression Neural Network Modeling for Predicting Air Pollution Levels in Semarang City (Media Statistics, Vol 1, 2008, pp 43-51)                                                                        | 4                  |
| 168 | Dr. Ing. Suherman, ST, MT     | Potential of LiNO <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> Catalyst for Heterogeneous Transesterification of Palm Oil to Biodiesel (BCREC, Vol 5 (1), 2010, pp 51-56)                                        | 10                 |
| 169 | Dr. Ing. Suherman, ST, MT     | Biodiesel Production From Rubber Seed Oil via Esterification Process (International Journal of Renewable Energy Development, Vol 1, 2012, p. 57)                                                                 | 9                  |
| 170 | Dr. Ing. Suherman, ST, MT     | Analysis of the Application of Clean Production Towards an Environmentally Friendly Nata De Coco Industry (Journal of Research on Industrial Pollution Prevention Technology, Vol 5, 2014, pp 45-50)             | 7                  |
| 171 | Dr. Ing. Suherman, ST, MT     | Biodiesel production from vegetable oil over plasma reactor: optimization of biodiesel yield using response surface methodology (Bulletin of Chemical Reaction Engineering & Catalysis, Vol 4, 2009, Page 23-31) | 7                  |
| 172 | Dr. Ing. Suherman, ST, MT     | Energy Efficient Dryer with Rice Husk Fuel for Agriculture Drying (International Journal of Renewable Energy Development, Vol 4, 2015, Pg 20)                                                                    | 4                  |

Write the title of the research output or the title of the PkM output produced by DTPS in the last 3 years by following the format of Table 3.b.7 below. The type and title of the output must be relevant to the field of study program.

Table 3.b.7 Outcomes of Other Research/PkM by DTPS

| No | Title of Research Outcome/PKM                                                                                          | Year   | Information                                              |
|----|------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------|
| 1  | 2                                                                                                                      | 3      | 4                                                        |
| I  | IPR 1)                                                                                                                 |        |                                                          |
|    | a) Patent                                                                                                              |        |                                                          |
|    | b) Simple Patent                                                                                                       |        |                                                          |
|    | 1. Plasma-Catalytic Integrated Process for Generating Fuel from Plastic Waste                                          | 2017   | Prof. Dr. Istadi, ST, MT                                 |
|    | 2. Plasma Catalytic Hybrid Reactor Methods and Equipment for Biodiesel Production                                      | 2018   | Prof. Dr. Istadi, ST, MT                                 |
|    | 3. Method of Determining Optimal Architecture for Combination Model of Wavelet and Neural Network                      | 2018   | Dr. Budi Warsito, S. Si., M.Sc.                          |
|    | 4. Air Recirculating Rack Dryer                                                                                        | 2018   | Dr. Suherman, ST, MT                                     |
|    | 5. Process for Making Glycerol Mono Laurate Using Dealuminated Zeolite Y Catalyst                                      | 2019   | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.               |
|    | 6. Method of Measurement of Ocean Wave Height and Period Using Ultrasonic Sensors and Drones                           | 2019   | Dr. Denny Nugroho Sugianto, ST, M.Sc.                    |
|    | 7. Panel Data Modeling Method Using Mixed Geographical Weighted Fixed Effects Panel Regression                         | 2019   | Dr. Budi Warsito, S. Si., M.Sc.                          |
|    | 8. Process of Making Gelatin from Fish Scale Waste Limbah                                                              | 2019   | Dr. Suherman, ST, MT                                     |
|    | amount                                                                                                                 | NA = 8 |                                                          |
| II | HK 1)                                                                                                                  |        |                                                          |
|    | a) Copyright,                                                                                                          |        |                                                          |
|    | 1. Clean Production Technology                                                                                         | 2017   | Prof. Dr.Ir. Purwanto, DEA                               |
|    | 2. Protist Biology                                                                                                     | 2017   | Prof. Dr. Dra. Tri Retnaningsih Soeprobawati, M. App. Sc |
|    | 3. Utilization of Yogyakarta Natural Zeolite as a Toxic Gas Adsorbent in Shrimp Pond Water                             | 2018   | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.               |
|    | 4. MGTWR GUI application; Spatio Temporal Modeling Using Mix Geographically and Temporally Weighted Regression (MGTWR) | 2018   | Dr. Budi Warsito, S.Si., M.Sc.                           |
|    | 5. Predictive Control Approach for Restricted Areas Avoidance of Autonomous System                                     | 2018   | Dr. Dra. Sunarsih, M.Si.                                 |
|    | 6. Book entitled Ecosystem-Based Coastal and Marine Management                                                         | 2019   | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.                   |
|    | 7. Book with the title Shrimp Domestication - Future Prospects of Food Sources from the Sea                            | 2019   | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.                   |
|    | 8. Sukabumi Natural Zeolite Potential to Absorb Toxic Gas from Shrimp Pond Water                                       | 2019   | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.               |
|    | 9. Oceanographic Methods Module                                                                                        | 2019   | Prof. Dr. Denny Nugroho Sugianto, ST, M.Si               |
|    | 10. Beach Hydraulics Module                                                                                            | 2019   | Prof. Dr. Denny Nugroho Sugianto, ST, M.Si               |
|    | 11. Improvement and Analysis on Domestic Waste Water Treatment Stabilization Ponds Using Mathematical Approach         | 2019   | Dr. Dra. Sunarsih, M.Si.                                 |
|    | 12. Rain Prediction Graphical Interface with General Regression Neural Network (GRNN) Model                            | 2019   | Dr. Budi Warsito, S.Si., M.Sc.                           |

| No  | Title of Research Outcome/PKM                                                                             | Year    | Information                                      |
|-----|-----------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------|
| 1   | 2                                                                                                         | 3       | 4                                                |
|     | 13. GSTAR Spatial Model-Based Ocean Wave Early Warning System                                             | 2019    | Dr. Budi Warsito, S.Si., M.Sc.                   |
|     | amount                                                                                                    | NB = 13 |                                                  |
| III | Appropriate Technology, Products (Standardized Products, Certified Products), Artwork, Social Engineering |         |                                                  |
|     | 1. Liquid Waste Treatment Equipment                                                                       |         | Prof. Dr. Ir. Purwanto. DEA                      |
|     | amount                                                                                                    | NC = 1  |                                                  |
| IV  | Books with ISBN, Book Chapters                                                                            |         |                                                  |
|     | 1. Environmental Research Methodology in the Social Sector                                                | 2017    | Prof. Sudharto P. Hadi, MES, Ph.D.               |
|     | 2. Zeolite Engineering Theory and Applications                                                            | 2017    | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.       |
|     | 3. Geocomputing Practical Handbook                                                                        | 2017    | Dr. rer. nat. Thomas Triadi Putranto, ST, M.Eng. |
|     | 4. Multi Gears Fishery Bioeconomic Modeling: A Case Study of Cantrang and Gill Net in Rembang Regency     | 2018    | Prof. Dr. Ir. Azis Nur Bambang, MS.              |
|     | 5. Engineering Zeolite for Waste Treatment                                                                | 2018    | Prof. Ir. Didi Dwi Anggoro, M. Eng., Ph.D.       |
|     | 6. Hydrogeology                                                                                           | 2018    | Dr. rer. nat. Thomas Triadi Putranto, ST, M.Eng. |
|     | 7. Anthology on Environmental Management Part Two                                                         | 2019    | Prof. Sudharto P. Hadi, MES, Ph.D.               |
|     | 8. Corporate Social and Environmental Responsibility                                                      | 2019    | Prof. Sudharto P. Hadi, MES, Ph.D.               |
|     | 9. Ecosystem-Based Coastal and Marine Management                                                          | 2019    | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.           |
|     | 10. Management of Waste that Arises from Disasters (PSTAB)                                                | 2019    | Dr. Eng. Maryono, ST, MT                         |
|     | amount                                                                                                    | ND = 12 |                                                  |

Information:

- 1) Outcomes of research/PKM that are recognized by Intellectual Property Rights (HKI) are proven by a letter of determination by the Ministry of Law and Human Rights or other competent ministries.

#### 4. Finance, Facilities and Infrastructure Pra

Write down data on the use of funds managed by UPPS and data on the use of funds allocated to accredited study programs in the last 3 years by following the format of Table 4 below.

Table 4. Use of Funds

| No | Usage Type                                                                                                                                                                             | Study Program Management Unit (Rp) |                       |                       |                       | Study Program (Rp)   |                      |                      |                      |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|
|    |                                                                                                                                                                                        | TS-2                               | TS-1                  | TS                    | Average               | TS-2                 | TS-1                 | TS                   | Average              |
| 1  | 2                                                                                                                                                                                      | 3                                  | 4                     | 5                     | 6                     | 7                    | 8                    | 9                    | 10                   |
| 1  | Education Operational Cost                                                                                                                                                             |                                    |                       |                       |                       |                      |                      |                      |                      |
|    | a. Lecturer Fee (Salary, Honor)                                                                                                                                                        | 6,752,439,390                      | 5,641,443,273         | 8,184,457,523         | 6,859,446,729         | 1,056,181,962        | 968,904,484          | 1,588,635,792        | 1,204,574,079        |
|    | b. Education Personnel Cost (Salary, Honor)                                                                                                                                            | 4,443,850,493                      | 3,510,906,123         | 2,949,098,339         | 3,634,618,318         | 79,502,740           | 154,560,525          | 102,961,193          | 112,341,486          |
|    | c. Operational and Learning Costs (Consumable Materials and Equipment)                                                                                                                 | 79,903,300                         | 112,166,520           | 240,968,800           | 144,346,207           | 18,165,700           | 18,012,042           | 34,894,702           | 23,690,814           |
|    | d. Indirect Operational Costs (Electricity, Gas, Water, Building Maintenance, Facility Maintenance, Overtime, Telecommunication, Consumption, Local Transport, Taxes, Insurance, etc.) | 1,872,795,408                      | 2,008,027,290         | 2,002,128,593         | 1,960,983,764         | 253,613,648          | 330,742,503          | 259,622,032          | 281,326,061          |
| 2  | Student Operational Costs (reasoning, interests, talents, guidance, career, and welfare)                                                                                               | -                                  | 22,112,000            | 3,800,000             | 8,637,333             | -                    | 3,762,000            | 3,800,000            | 2,520,667            |
|    | <b>amount</b>                                                                                                                                                                          | <b>13,148,988,591</b>              | <b>11,294,655,206</b> | <b>13,380,453,255</b> | <b>12,608,032,351</b> | <b>1,407,464,050</b> | <b>1,475,981,553</b> | <b>1,989,913,718</b> | <b>1,624,453,107</b> |
| 3  | Research Fee                                                                                                                                                                           | -                                  | -                     | 650,000,000           | 216,666,667           | -                    | -                    | 180,000,000          | 60,000,000           |
| 4  | PKM fee                                                                                                                                                                                | -                                  | -                     | 70,000,000            | 23,333,333            | -                    | -                    | 12,000,000           | 4,000,000            |
|    | <b>amount</b>                                                                                                                                                                          | <b>-</b>                           | <b>-</b>              | <b>720,000,000</b>    | <b>240,000,000</b>    | <b>-</b>             | <b>-</b>             | <b>192,000,000</b>   | <b>64,000,000</b>    |
| 5  | HR investment costs                                                                                                                                                                    | 25,351,000                         | 22,950,259            | 18,200,000            | 22,167,086            | -                    | -                    | -                    | -                    |
| 6  | Facility investment costs                                                                                                                                                              | 645,378,592                        | 469,644,740           | 1,050,500,000         | 721,841,111           | 236,602,976          | 108,409,173          | 473,050,000          | 272,687,383          |

| No | Usage Type                      | Study Program Management Unit (Rp) |                       |                       |                       | Study Program (Rp)   |                      |                      |                      |
|----|---------------------------------|------------------------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|
|    |                                 | TS-2                               | TS-1                  | TS                    | Average               | TS-2                 | TS-1                 | TS                   | Average              |
| 1  | 2                               | 3                                  | 4                     | 5                     | 6                     | 7                    | 8                    | 9                    | 10                   |
| 7  | Infrastructure investment costs | 197,630,000                        | 1,591,920,000         | 89,308,000            | 626,286,000           | 32,938,333           | 265,320,000          | 14,884,667           | 104,381,000          |
|    | <b>amount</b>                   | <b>868,359,592</b>                 | <b>2,084,514,999</b>  | <b>1,158,008,000</b>  | <b>1,370,294,197</b>  | <b>269,541,309</b>   | <b>373,729,173</b>   | <b>487,934,667</b>   | <b>377,068,383</b>   |
|    | <b>TOTAL</b>                    | <b>14,017,348,183</b>              | <b>13,379,170,205</b> | <b>15,258,461,255</b> | <b>14,218,326,548</b> | <b>1,677,005,360</b> | <b>1,849,710,727</b> | <b>2,669,848,385</b> | <b>2,065,521,490</b> |

## 5. Education

### a. Curriculum

Write down the program structure and completeness of the course data in accordance with the curriculum document of the study program that is in effect at the time of TS by following the format of Table 5.a below.

Table 5.a Curriculum, Learning Outcomes, and Lesson Plans

| No | Semester | Course Code | Course Name                                    | Competency Course 1) | Credit Weight (credit)      |         |                                    | Convert Credits to Hours 2) | Learning Outcomes 3) |           |                |               | Lesson plan document 4) | Organizing Unit |
|----|----------|-------------|------------------------------------------------|----------------------|-----------------------------|---------|------------------------------------|-----------------------------|----------------------|-----------|----------------|---------------|-------------------------|-----------------|
|    |          |             |                                                |                      | Lecture/ Response/ Tutorial | Seminar | Practicum/Practice/ Field Practice |                             | Attitude             | Knowledge | Skills General | Special skill |                         |                 |
| 1  | 2        | 3           | 4                                              | 5                    | 6                           | 7       | 8                                  | 9                           | 10                   | 11        | 12             | 13            | 14                      | 15              |
| 1  | I        | CIL-2-2-600 | Philosophy of Science and Research Methodology | V                    | 3                           | -       | -                                  | 150                         | -                    | V         | V              | -             |                         | PSIL            |
| 2  |          | CIL-2-2-601 | Environmental Economics and Natural Resources  | V                    | 3                           | -       | -                                  | 150                         | V                    | V         | V              | V             |                         | PSIL            |

| No | Semester | Course Code | Course Name                                      | Competency Course 1) | Credit Weight (credit)      |         |                                    | Convert Credits to Hours 2) | Learning Outcomes 3) |           |                |               | Lesson plan document 4) | Organizing Unit |
|----|----------|-------------|--------------------------------------------------|----------------------|-----------------------------|---------|------------------------------------|-----------------------------|----------------------|-----------|----------------|---------------|-------------------------|-----------------|
|    |          |             |                                                  |                      | Lecture/ Response/ Tutorial | Seminar | Practicum/Practice/ Field Practice |                             | Attitude             | Knowledge | Skills General | Special skill |                         |                 |
| 1  | 2        | 3           | 4                                                | 5                    | 6                           | 7       | 8                                  | 9                           | 10                   | 11        | 12             | 13            | 14                      | 15              |
| 3  |          | CIL-2-2-602 | Environmental Statistics                         | V                    | 3                           | -       | -                                  | 150                         | -                    | V         | V              | V             |                         | PSIL            |
| 4  |          | CIL-2-2-603 | Ecology and Environmental Pollution              | V                    | 3                           | -       | -                                  | 150                         | V                    | V         | V              | -             |                         | PSIL            |
| 5  |          | CIL-2-2-604 | Computer Applications and Environmental Modeling | V                    | 3                           | -       | -                                  | 150                         | -                    | V         | V              | V             |                         | PSIL            |
| 6  | II       | CIL-2-2-605 | Environmental Law and Policy                     | V                    | 2                           | -       | -                                  | 100                         | V                    | V         | V              | V             |                         | PSIL            |
| 7  |          | CIL-2-2-606 | Environmental System Analysis                    | V                    | 2                           | -       | -                                  | 100                         | -                    | V         | V              | V             |                         | PSIL            |
| 8  |          | CIL-2-2-607 | Environmental Planning Theories                  | V                    | 3                           | -       | -                                  | 150                         | -                    | V         | V              | V             |                         | PSIL            |
| 9  |          | CIL-2-2-608 | Natural Resources and Environment Conservation   | V                    | 3                           | -       | -                                  | 150                         | V                    | V         | V              | V             |                         | PSIL            |
| 10 |          | CIL-2-2-609 | Spatial Planning and Environment                 | V                    | 2                           | -       | -                                  | 100                         | V                    | V         | V              | V             |                         | PSIL            |
| 11 |          | CIL-2-2-610 | Environmental Pollution Control                  | V                    | 2                           | -       | -                                  | 100                         | V                    | V         | V              | V             |                         | PSIL            |

| No | Semester | Course Code | Course Name                                      | Competency Course 1) | Credit Weight (credit)      |         |                                    | Convert Credits to Hours 2) | Learning Outcomes 3) |           |                |               | Lesson plan document 4) | Organizing Unit |
|----|----------|-------------|--------------------------------------------------|----------------------|-----------------------------|---------|------------------------------------|-----------------------------|----------------------|-----------|----------------|---------------|-------------------------|-----------------|
|    |          |             |                                                  |                      | Lecture/ Response/ Tutorial | Seminar | Practicum/Practice/ Field Practice |                             | Attitude             | Knowledge | Skills General | Special skill |                         |                 |
| 1  | 2        | 3           | 4                                                | 5                    | 6                           | 7       | 8                                  | 9                           | 10                   | 11        | 12             | 13            | 14                      | 15              |
| 12 |          | CIL-2-2-611 | Disaster Management Strategy                     | V                    | 2                           | -       | -                                  | 100                         | -                    | V         | V              | V             |                         | PSIL            |
| 13 |          | CIL-2-2-612 | Disaster Mitigation and Adaptation               | V                    | 3                           | -       | -                                  | 150                         | -                    | V         | V              | V             |                         | PSIL            |
| 14 |          | CIL-2-2-613 | Disaster Management Method                       | V                    | 2                           | -       | -                                  | 100                         | -                    | V         | V              | V             |                         | PSIL            |
| 15 |          | CIL-2-2-614 | EIA                                              | V                    | 3                           | -       | -                                  | 150                         | V                    | V         | V              | V             |                         | PSIL            |
| 16 | III      | CIL-2-2-615 | Capita Selecta                                   | V                    | 3                           | -       | -                                  | 150                         | V                    | V         | V              | V             |                         | PSIL            |
| 17 |          | CIL-2-2-616 | Job training                                     | V                    | -                           | -       | 1                                  |                             | -                    | V         | V              | V             |                         | PSIL            |
| 18 |          | CIL-2-2-617 | Thesis proposal                                  | V                    | -                           | 2       | -                                  | 100                         | -                    | V         | V              | V             |                         | PSIL            |
| 19 | IV       | CIL-2-2-618 | Seminars and Scientific Publications             | V                    | -                           | 2       | -                                  | 100                         | V                    | V         | V              | V             |                         | PSIL            |
| 20 |          | CIL-2-2-619 | Thesis                                           | V                    | -                           | 6       | -                                  | 300                         | V                    | V         | V              | V             |                         | PSIL            |
| 21 |          | CIL-2-2-701 | Infrastructure Development and Environmental GIS |                      | 2                           | -       | -                                  | 100                         | -                    | V         | V              | V             |                         | PSIL            |

| No | Semester | Course Code | Course Name                               | Competency Course 1) | Credit Weight (credit)      |         |                                    | Convert Credits to Hours 2) | Learning Outcomes 3) |           |                |               | Lesson plan document 4) | Organizing Unit |
|----|----------|-------------|-------------------------------------------|----------------------|-----------------------------|---------|------------------------------------|-----------------------------|----------------------|-----------|----------------|---------------|-------------------------|-----------------|
|    |          |             |                                           |                      | Lecture/ Response/ Tutorial | Seminar | Practicum/Practice/ Field Practice |                             | Attitude             | Knowledge | Skills General | Special skill |                         |                 |
| 1  | 2        | 3           | 4                                         | 5                    | 6                           | 7       | 8                                  | 9                           | 10                   | 11        | 12             | 13            | 14                      | 15              |
| 22 |          | CIL-2-2-702 | Technology and Energy Management Planning |                      | 2                           | -       | -                                  | 100                         | V                    | V         | V              | V             |                         | PSIL            |
| 23 |          | CIL-2-2-711 | Clean Technology                          |                      | 2                           | -       | -                                  | 100                         | V                    | V         | V              | V             |                         | PSIL            |
| 24 |          | CIL-2-2-726 | Transfers and Mass Transportation         |                      | 2                           | -       | -                                  | 100                         | -                    | V         | V              | V             |                         | PSIL            |
| 25 |          | CIL-2-2-727 | Regional Planning and Infrastructure      |                      | 2                           | -       | -                                  | 100                         | V                    | V         | V              | V             |                         | PSIL            |
| 26 |          | CIL-2-2-728 | Environmental Chemistry and Biology       |                      | 2                           | -       | -                                  | 100                         | -                    | V         | V              | V             |                         | PSIL            |
| 27 |          | CIL-2-2-730 | Hydroclimatology                          |                      | 2                           | -       | -                                  | 100                         | -                    | V         | V              | V             |                         | PSIL            |

**Information:**

- <sup>1)</sup> Filled with a check mark V if the course is included in the competency course of the study program.
- <sup>2)</sup> Filled with credit conversion to the hours of Practicum/Practice/Field Practice. This data is filled in by the proposer from the study program in the Diploma Three/Bachelor/Applied Bachelor program.
- <sup>3)</sup> Filled with check mark V in the column of elements forming Graduate Learning Outcomes (CPL) in accordance with the RPS.
- <sup>4)</sup> Filled with the name of the lesson plan document used.

## b. Integration of Research/PkM Activities in Learning

Write the title of the DTPS research/PKM integrated into the learning/course development in the last 3 years by following the format of Table 5.b below.

Table 5.b Integration of Research/PkM Activities in Learning

| No. | Research Title/PKM                                                                                                                                                                                                           | Lecturer Name                                             | Courses                                          | Integration Form | Year(YYYY) |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------|------------------|------------|
| 1   | 2                                                                                                                                                                                                                            | 3                                                         | 4                                                | 5                | 6          |
| 1   | Stratigraphy Diatoms and Reconstruction of the Past Environment of Telaga Warna Dieng                                                                                                                                        | Prof. Dr. Dra. Tri Retnaningsih Soeprobowati, M. App. Sc. | Environmental Chemistry and Biology              | Lecture material | 2017       |
| 2   | Making Glycerol Monolaurate from Glycerol Using Zeolite Y . Dealumination Catalyst                                                                                                                                           | Prof. Dr. Didi Dwi Anggoro, M.Eng.                        | Technology and Energy Management Planning        | Lecture material | 2017       |
| 3   | Geographic Information System (GIS) Model for Monitoring Spatial Dynamics of Urban Metropolitan Areas in Java and Madura Island                                                                                              | Prof. Dr. rer. nat. Imam Buchori, S.T                     | Spatial Planning and Environment                 | Lecture material | 2017       |
| 4   | Development of a Plasma-Catalytic Hybrid Reactor Prototype with Transesterification Process for Biodiesel Production from Plant Oils                                                                                         | Prof. Dr. Istadi, ST, MT                                  | Computer Applications and Environmental Modeling | Lecture material | 2017       |
| 5   | Application of BwN Technology (Building with Nature) Hybrid Structure as an Effort for Disaster Mitigation of Coastal Damage and Rehabilitation of Coastal Areas in Demak Regency                                            | Prof. Dr. Denny Nugroho Sugianto, ST, M.Sc.               | Environmental Planning Theories                  | Lecture material | 2017       |
| 6   | Investigation of Fouling Behavior of Ultrafiltration of Natural Organic Matter in High Saline Water                                                                                                                          | Prof. Dr. rer. nat. Heru Susanto, ST, MM, MT              | Philosophy and Research Methodology              | Lecture material | 2017       |
| 7   | The Development of Fly Ash Supported CaO Derived from Mollusk Shells as a Heterogeneous Catalyst in Biodiesel Synthesis                                                                                                      | Prof.Dr. Hadiyanto, ST, M.Sc.                             | Environmental Chemistry and Biology              | Lecture material | 2017       |
| 8   | Production of Encapsulated Phycocyanin from Microalgae as Antioxidant with High Stability and Activity Aktivitas                                                                                                             | Prof.Dr. Hadiyanto, ST, M.Sc.                             | Environmental Chemistry and Biology              | Lecture material | 2017       |
| 9   | Ecological Engineering Using Mangrove Ecosystems to Increase Fertility of Ponds on the North Coast of Central Java for Sustainable Fisheries                                                                                 | Dr. Fuad Muhammad, S.Si., M.Sc.                           | Natural Resources and Environment Conservation   | Lecture material | 2017       |
| 10  | Application of Biosensor Technology to Detect Water and Nutrient Quality in Mass Culture of Tubifex sp. by Utilizing Industrial Waste to Increase Production of Catfish Hatchery ( <i>Clarias gariepenus</i> )               | Dr. Fuad Muhammad, S.Si., M.Sc.                           | Natural Resources and Environment Conservation   | Lecture material | 2017       |
| 11  | Empowerment of Tofu Producers SMEs through Utilization of Waste into Biogas Type of Fixed Dome Reactor and Organic Fertilizer and Cracker Processed Products in Langensari Village, Ungaran Barat District, Semarang Regency | Dr. Fuad Muhammad, S.Si., M.Sc.                           | Natural Resources and Environment Conservation   | Lecture material | 2017       |
| 12  | Long Term Stability of Three on Site Sanitation Types in Semarang                                                                                                                                                            | Dr. Ing. Sudarno, ST, M.Sc.                               | Environmental Pollution Control                  | Lecture material | 2017       |
| 13  | Integrated Hydrogeological Mapping and Human Awareness Index for Establishing Groundwater Vulnerability Maps in Semarang Urban Area                                                                                          | Dr.rer.nat Thomas Triadi P., M.Eng                        | Mass Transfer and Transformation                 | Lecture material | 2017       |

| No. | Research Title/PKM                                                                                                                                                                                                              | Lecturer Name                                            | Courses                                   | Integration Form | Year(YYYY) |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------|------------------|------------|
| 1   | 2                                                                                                                                                                                                                               | 3                                                        | 4                                         | 5                | 6          |
| 14  | Ecological Engineering Using Mangrove Ecosystems to Increase Fertility of Ponds on the North Coast of Central Java for Sustainable Fisheries                                                                                    | Dr. Drs. Jafron Wasiq Hidayat, M.Sc.                     | Ecology and Environmental Planning        | Lecture material | 2017       |
| 15  | Design and Optimization of Energy Efficient Fluidized Bed Dryer For Production High Quality Paddy                                                                                                                               | Dr. Ing. Suherman, ST, MT                                | Clean Technology                          | Lecture material | 2017       |
| 16  | Impact of Human Activities on the Pengilon Dieng Lake Ecosystem and Development of Sustainable Management Strategies                                                                                                            | Prof. Dr. Dra. Tri Retnaningsih Soeprobowati, M. App. Sc | Environmental Chemistry and Biology       | Lecture material | 2018       |
| 17  | Synthetic zeolite-based catalyst engineering for the production of Glycerol Mono Stearate from Glycerol                                                                                                                         | Prof. Dr. Didi Dwi Anggoro, M.Eng                        | Technology and Energy Management Planning | Lecture material | 2018       |
| 18  | Synthesis of Heterogeneous Ca/MgO Catalyst Using Sol Gel Method For Monoglyceride Production Pembuatan                                                                                                                          | Prof. Dr. Didi Dwi Anggoro, M.Eng                        | Technology and Energy Management Planning | Lecture material | 2018       |
| 19  | The Role of Spatial Planning Towards Better Resilience to Hydro-Meteorological Hazard; Case Study: Coastal Areas of Semarang City                                                                                               | Prof. Dr. rer. nat. Imam Buchori, ST                     | Spatial Planning and Environment          | Lecture material | 2018       |
| 20  | Treatment of Pesticide Contaminated Water Using Nanofiltration Membranes: Efforts to Provide Drinking Water to Improve Public Health                                                                                            | Prof. Dr. rer. nat. Heru Susanto, ST, MM, MT             | Philosophy and Research Methodology       | Lecture material | 2018       |
| 21  | Characterization and Fabrication of Polyethersulfone/Chitosan/Nanoparticle Hollow Fiber Membranes for Hemodialysis Applications                                                                                                 | Prof. Dr. rer. nat. Heru Susanto, ST, MM, MT             | Philosophy and Research Methodology       | Lecture material | 2018       |
| 22  | Synthesis of Low Fouling Ultrafiltration Membrane by Incorporating Natural Antifouling and Nanomaterials                                                                                                                        | Prof. Dr. rer. nat. Heru Susanto, ST, MM, MT             | Philosophy and Research Methodology       | Lecture material | 2018       |
| 23  | Development of Dalangan Hamlet, Sumogawe, Getasan, Semarang Regency as a Tourism Village Based on Local Potential                                                                                                               | Prof. Dr. rer. nat. Heru Susanto, ST, MM, MT             | Philosophy and Research Methodology       | Lecture material | 2018       |
| 24  | Biorefinery of Oil and Protein from Microalgae and Palm Oil Liquid Waste Using ZnO:Ag Photocatalyst                                                                                                                             | Prof.Dr. Hadiyanto, ST, M.Sc.                            | Environmental Chemistry and Biology       | Lecture material | 2018       |
| 25  | Mini Plant Production of Antioxidant Phycocyanin Encapsulated from Microalgae Spirulina plantesis as an Effort to Support National Nutrition Security                                                                           | Prof.Dr. Hadiyanto, ST, M.Sc.                            | Environmental Chemistry and Biology       | Lecture material | 2018       |
| 26  | Development of Mathematical Model of Domestic Wastewater Pollutant Transport Phenomenon Based on Advection-Dispersion Process in Stabilization Pond                                                                             | Dr. Sunarsih, MSi                                        | Environmental System Analysis             | Lecture material | 2018       |
| 27  | Characteristics of leachate and investigation of groundwater pollution at the Undip TPST location                                                                                                                               | Mochamad Arief Budihardjo., ST., M.Eng Sc., Ph.D.        | Environmental Chemistry and Biology       | Lecture material | 2018       |
| 28  | Preparation of Groundwater Vulnerability Risk Zones for Pumping and Seawater Intrusion and Design of Stakeholder Mental Models in Groundwater Management as the Basis for Determining Monitoring Well Networks in Semarang City | Dr.rer.nat Thomas Triadi P., M.Eng.                      | Mass Transfer and Transformation          | Lecture material | 2018       |

| No. | Research Title/PKM                                                                                                                                                                                                           | Lecturer Name                                            | Courses                                          | Integration Form | Year(YYYY) |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------|------------------|------------|
| 1   | 2                                                                                                                                                                                                                            | 3                                                        | 4                                                | 5                | 6          |
| 29  | Spatio Temporal Modeling of Air Pollutants Using Mxed Geographically and Temporally Weighted Multivariate Regressions (MGTWMR)                                                                                               | Dr. Budi Warsito, S.Si., M.Sc.                           | Environmental Statistics                         | Lecture material | 2018       |
| 30  | Application of Eco-turban Rice Field Model to Increase Food Diversity Based on Lake Conservation that Engages Communities Productively.                                                                                      | Dr. Drs. Jafron Wasiq Hidayat, M.Sc.                     | Ecology and Environmental Planning               | Lecture material | 2018       |
| 31  | IbPUD Contemporary Batik Association in Semarang City, Central Java                                                                                                                                                          | Dr. Budi Warsito, S.Si., M.Sc.                           | Environmental Statistics                         | Lecture material | 2018       |
| 32  | Green Infrastructure Resilience Modeling as a Base for Low Carbon City Development in Semarang                                                                                                                               | Dr. Eng. Maryono, S.T., M.T.                             | Environmental Planning Theories                  | Lecture material | 2018       |
| 33  | Acceleration of Rural Economic Development in Central Java through the Implementation of Tapioca Production Technology with Hybrid Solar Dryers as Raw Materials for the Food and Beverage Industry Based on Local Resources | Dr. Ing. Suherman, ST, MT                                | Clean Technology                                 | Lecture material | 2018       |
| 34  | Development of Hybrid Solar Dryers for Production of High Quality Seaweed As Raw Materials for Industry Based on Local Resources: Design, Scale-Up, And Optimization                                                         | Dr. Ing. Suherman, ST, MT                                | Clean Technology                                 | Lecture material | 2018       |
| 35  | Sustainable Utilization of Kendeng Mountain for Water Resources and Food Security                                                                                                                                            | Prof. Dr. Sudharto P Hadi, MES, Ph. D                    | Environmental Planning Theories                  | Lecture material | 2019       |
| 36  | Development of an Air Quality Monitoring System Based on a Wireless Sensor Network as an Effort to Support a Clean City and Industrial Air Environment                                                                       | Prof.Dr. Ir. Purwanto, DEA                               | Computer Applications and Environmental Modeling | Lecture material | 2019       |
| 37  | Paleolimnological Assessment of Anthropogenic Activities in Galela Lake Halmahera                                                                                                                                            | Prof. Dr. Dra. Tri Retnaningsih Soeprbowati, M. App. Sc. | Environmental Chemistry and Biology              | Lecture material | 2019       |
| 38  | Utilization of Natural Zeolite as a Toxic Gas Adsorbent in Pond Water                                                                                                                                                        | Prof. Dr. Didi Dwi Anggoro, M.Eng.                       | Technology and Energy Management Planning        | Lecture material | 2019       |
| 39  | Theorizing the Phenomenon of De-urbanization in Metropolitan Regions of Central Java Province, Indonesia                                                                                                                     | Prof. Dr. rer. nat Imam Buchori, ST                      | Spatial Planning and Environment                 | Lecture material | 2019       |
| 40  | Palm Oil Cracking to Renewable Liquid Fuels over Plasma-Assisted Catalytic Continuous Reactor to Supply National Energy Demand                                                                                               | Prof. Dr. Istadi, ST, MT                                 | Computer Applications and Environmental Modeling | Lecture material | 2019       |
| 41  | Coastal Protection Using Submerged Breakwater as a Disaster Mitigation Effort for Beach Damage on Panjang Island, Jepara Regency                                                                                             | Prof. Dr. Denny Nugroho Sugianto, ST, M.Sc.              | Environmental Planning Theories                  | Lecture material | 2019       |
| 42  | Mathematical Analysis and Optimization of Stabilization Pond System for Wastewater Treatment                                                                                                                                 | Dr. Sunarsih, M.Si.                                      | Environmental System Analysis                    | Lecture material | 2019       |
| 43  | Improvement of Hydraulic and Stability Performance of Composite Landfill Liner                                                                                                                                               | Mochamad Arief Budihardjo., ST., M.Eng Sc., Ph.D.        | Ecology and Environmental Planning               | Lecture material | 2019       |

| No. | Research Title/PKM                                                                                                                                                        | Lecturer Name                       | Courses                          | Integration Form | Year(YYYY) |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------|------------------|------------|
| 1   | 2                                                                                                                                                                         | 3                                   | 4                                | 5                | 6          |
| 44  | Groundwater Potential Analysis for Water Footprint Evaluation (Hydrology, Economics, & Public Health) in the Sumowono Groundwater Basin (CAT) Area, Central Java Province | Dr.rer.nat Thomas Triadi P., M.Eng. | Mass Transfer and Transformation | Lecture material | 2019       |
| 45  | Application of Spatial Analysis to Develop Groundwater Vulnerability Using Drastic and Sintacs Methods in Semarang Coastal Aquifer                                        | Dr.rer.nat Thomas Triadi P., M.Eng. | Mass Transfer and Transformation | Lecture material | 2019       |
| 46  | Building Disaster Waste Management Resilience By Using Independent System Treatment in Indonesian Small Island Hazard Region                                              | Dr. Eng. Maryono, ST, MT            | Disaster Management Method       | Lecture Method   | 2019       |
| 47  | Ambient Air Quality Modeling Based on Hybrid Artificial Neural Networks and Particle                                                                                      | Dr. Budi Warsito, S.Si., M.Sc.      | Environmental Statistics         | Lecture material | 2019       |

Information:

<sup>1)</sup> The title of research and PkM is recorded in the unit/institution that manages research/PKM activities at the Higher Education/UPPS level.

<sup>2)</sup> The form of integration can be in the form of additional lecture materials, case studies, chapters/sub-chapters in textbooks, or other relevant forms.

### c. Student Satisfaction

Write down the results of measuring student satisfaction with the educational process by following the following table 5.c format. The data is taken from the results of a search study conducted during TS.

Table 5.c Student Satisfaction

| No | Measured Aspect                                                                                                                                                    | Student Satisfaction Rate (%) |      |        |      | Follow Up Plan by UPPS/PS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|--------|------|---------------------------|
|    |                                                                                                                                                                    | Very good                     | Good | Enough | Less |                           |
| 1  | 2                                                                                                                                                                  | 3                             | 4    | 5      | 6    | 7                         |
| 1  | Reliability: the ability of lecturers, education staff, and managers in providing services                                                                         | 56                            | 40   | 3      | 2    |                           |
| 2  | Responsiveness: the willingness of lecturers, education staff, and managers to help students and provide services quickly                                          | 53                            | 42   | 4      | 3    |                           |
| 3  | Assurance: the ability of lecturers, education staff, and managers to give confidence to students that the services provided are in accordance with the provisions | 48                            | 49   | 3      | 1    |                           |

| No | Measured Aspect                                                                                                 | Student Satisfaction Rate (%) |      |        |      | Follow Up Plan by UPPS/PS |
|----|-----------------------------------------------------------------------------------------------------------------|-------------------------------|------|--------|------|---------------------------|
|    |                                                                                                                 | Very good                     | Good | Enough | Less |                           |
| 1  | 2                                                                                                               | 3                             | 4    | 5      | 6    | 7                         |
| 4  | Empathy (emphaty): willingness/caring for lecturers, education staff, and managers to pay attention to students | 53                            | 44   | 2      | 1    |                           |
| 5  | <i>Tangible</i> : student assessment of the adequacy, accessibility, quality of facilities and infrastructure   | 47                            | 49   | 5      | 1    |                           |
|    | <b>amount</b>                                                                                                   | 51.4                          | 44.8 | 3.4    | 1.6  |                           |

## 6. Research

### a. DTPS Research Involving Students

The following table 6.a is filled out by the proposer from the Study Program in the Applied Bachelor/Bachelor/Master/Applied Master/Doctoral/Applied Doctoral program

Write down DTPS research data which in its implementation involves Study Program students at TS-2 to TS by following the format of Table 6.a below.

Table 6.a DTPS research involving students

| No. | Lecturer Name                                            | Research Theme according to the Roadmap | Student name           | Activity Title 1) | Year |
|-----|----------------------------------------------------------|-----------------------------------------|------------------------|-------------------|------|
| 1   | 2                                                        | 3                                       | 4                      | 5                 | 6    |
| 1   | Prof. Dr. Ir. Purwanto, DEA                              | Environment                             | Destha Aji Kesuma      | Thesis            | 2017 |
| 2   | Prof. Dr. Ir. Purwanto, DEA                              | Environment                             | Tri Setyo Wibowo       | Thesis            | 2017 |
| 3   | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.                   | Environment                             | Bayu Purnomo           | Thesis            | 2017 |
| 4   | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.                   | Environment                             | Marta Shabran Kharja   | Thesis            | 2017 |
| 5   | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.                   | Environment                             | Andrian Garbono        | Thesis            | 2017 |
| 6   | Prof. Dr. Dra. Tri Retnaningsih Soeprobawati, M. App. Sc | Environment                             | Alvan Pahuluan         | Thesis            | 2017 |
| 7   | Prof. Dr. rer. nat. Imam Buchori, ST                     | Environment                             | Elijah Sawitri         | Thesis            | 2017 |
| 8   | Dr. Hartuti Purnaweni, MPA                               | Environment                             | Topo Budi Dhanarko     | Thesis            | 2017 |
| 9   | Dr. Fuad Muhammad, SSi., M. Si                           | Environment                             | Alexander Melat Aryasa | Thesis            | 2017 |
| 10  | Dr. Ing. Sudarno utomo, ST M.Sc.                         | Environment                             | Erwin Bahar            | Thesis            | 2017 |

| No. | Lecturer Name                                             | Research Theme according to the Roadmap | Student name                   | Activity Title 1) | Year |
|-----|-----------------------------------------------------------|-----------------------------------------|--------------------------------|-------------------|------|
| 1   | 2                                                         | 3                                       | 4                              | 5                 | 6    |
| 11  | Prof. Drs. Sudharto P Hadi, MES, Ph.D.                    | Climate                                 | Beautiful Kurniasih Wahyu Sari | Thesis            | 2018 |
| 12  | Prof. Dr. Ir. Purwanto, DEA                               | Environment                             | Wijayanto Setyo Aji            | Thesis            | 2018 |
| 13  | Prof. Dr. Ir. Purwanto, DEA                               | Environment                             | Aulia Firda Alfiana            | Thesis            | 2018 |
| 14  | Prof. Dr. Ir. Purwanto, DEA                               | Energy                                  | Ana Yustika                    | Thesis            | 2018 |
| 15  | Prof. Dr. Dra. Tri Retnaningsih Soeprobowati, M. App. Sc. | Environment                             | Anisa Putri Febriani           | Thesis            | 2018 |
| 16  | Prof. Dr. Dra. Tri Retnaningsih Soeprobowati, M. App. Sc. | Environment                             | Yulis Hindarwati               | Thesis            | 2018 |
| 17  | Prof. Dr. Denny Nugroho Sugianto, ST, M.Sc.               | Climate                                 | Yadi Suryadi                   | Thesis            | 2018 |
| 18  | Prof. Dr. Hadiyanto, ST, M.Sc.                            | Environment                             | Hashfi Hawali Abdul Matin      | Thesis            | 2018 |
| 19  | Prof. Dr. Hadiyanto, ST, M.Sc.                            | Environment                             | Arieyanti Dwi Astuti           | Thesis            | 2018 |
| 20  | Prof. Dr. Hadiyanto, ST, M.Sc.                            | Environment                             | Chalid Afif Alfajrin Achmad    | Thesis            | 2018 |
| 21  | Dr. Sunarsih, M.Si.                                       | Environment                             | Ihsan Wira                     | Thesis            | 2018 |
| 22  | Dr. kismartini, M.Si.                                     | Environment                             | Masitoh Ernawati               | Thesis            | 2018 |
| 23  | Dr. kismartini, M.Si.                                     | Environment                             | Nur Anisa Eka Ariyani          | Thesis            | 2018 |
| 24  | Dr. kismartini, M.Si.                                     | Disaster Management                     | Hendra Wirawan Zakariah        | Thesis            | 2018 |
| 25  | Dr. Hartuti Purnaweni, MPA                                | Environment                             | Riwayatningsih                 | Thesis            | 2018 |
| 26  | Dr. Fuad Muhammad, SSI, M.Sc.                             | Environment                             | Alfan Eka Suardana             | Thesis            | 2018 |
| 27  | Dr. Fuad Muhammad, SSI, M.Sc.                             | Coastal                                 | Raditya Ahmad Rifandi          | Thesis            | 2018 |
| 28  | Dr. Ing. Sudarno, ST, M.Sc.                               | Environment                             | Purnamasari Ethics             | Thesis            | 2018 |
| 29  | Dr. Ing. Sudarno, ST, M.Sc.                               | Environment                             | Anom Guritno                   | Thesis            | 2018 |
| 30  | Dr. Jafron Wasiq Hidayat, M.Sc.                           | Coastal                                 | Achmadah Kurniawati            | Thesis            | 2018 |
| 31  | Dr. Eng. Maryono, ST, MT                                  | Environment                             | Noor Amalia Chusna             | Thesis            | 2018 |
| 32  | Dr. Eng. Maryono, ST, MT                                  | Environment                             | Aji Uhfatun Muzdalifah         | Thesis            | 2018 |
| 33  | Dr. Eng. Maryono, ST, MT                                  | Environment                             | Dea Chintanya                  | Thesis            | 2018 |

| No. | Lecturer Name                                             | Research Theme according to the Roadmap | Student name                 | Activity Title 1) | Year |
|-----|-----------------------------------------------------------|-----------------------------------------|------------------------------|-------------------|------|
| 1   | 2                                                         | 3                                       | 4                            | 5                 | 6    |
| 34  | Dr. Ing. Suherman, ST, MT                                 | Environment                             | Elza Rizkiawalia             | Thesis            | 2018 |
| 35  | Dr. Ing. Suherman, ST, MT                                 | Environment                             | Sumardianto Nugroho          | Thesis            | 2018 |
| 36  | Prof. Dr. Ir. Purwanto, DEA                               | Environment                             | Sri Maharani                 | Thesis            | 2019 |
| 37  | Prof. Dr. Ir. Purwanto, DEA                               | Environment                             | Aulia Firda Alfiana          | Thesis            | 2019 |
| 38  | Prof. Dr. Azis Nur Bambang, M.Sc.                         | Environment                             | Nurul Elmi Faid              | Thesis            | 2019 |
| 39  | Prof. Dr. Dra. Tri Retnaningsih Soeprobawati, M. App. Sc. | Coastal                                 | Ikha Jayanti Mamayu Utami    | Thesis            | 2019 |
| 40  | Prof. Dr.rer.nat. Heru Susanto, ST, MM, MT                | Environment                             | Nofiana                      | Thesis            | 2019 |
| 41  | Prof. Dr. Hadiyanto, ST, M.Sc.                            | Environment                             | Havid Widiyanto              | Thesis            | 2019 |
| 42  | Prof. Dr. Hadiyanto, ST, M.Sc.                            | Environment                             | M. Arief Rahman Halim        | Thesis            | 2019 |
| 43  | Dr. Sunarsih, M.Si.                                       | Environment                             | Ihsan wira senjaya           | Thesis            | 2019 |
| 44  | Dr. Sunarsih, M.Si.                                       | Environment                             | Satryani Kartika Ningrum Ika | Thesis            | 2019 |
| 45  | Dr. kismartini, M.Si.                                     | Disaster Management                     | Yuliana Rachmawati           | Thesis            | 2019 |
| 46  | Dr. kismartini, M.Si.                                     | Environment                             | Masitoh Ernawati             | Thesis            | 2019 |
| 47  | Dr. Hartuti Purnaweni, MPA                                | Environment                             | Endang Rini                  | Thesis            | 2019 |
| 48  | Dr. Hartuti Purnaweni, MPA                                | Environment                             | Dwito Darmawan               | Thesis            | 2019 |
| 49  | Dr. Fuad Muhammad, SSi, M.Sc.                             | Environment                             | Ari Wulandari                | Thesis            | 2019 |
| 50  | Dr. Ing. Sudarno, ST, M.Sc.                               | Environment                             | Solikul Abdi                 | Thesis            | 2019 |
| 51  | Dr. Ing. Sudarno, ST, M.Sc.                               | Environment                             | Purnamasari Ethics           | Thesis            | 2019 |
| 52  | Dr.rer.nat.Thomas Triadi Putranto, ST., MEng.             | Environment                             | Dwi Nur Yuliyani             | Thesis            | 2019 |
| 53  | Dr. Eng. Maryono, ST, MT                                  | Environment                             | Aji Uhfatun Muzdalifah       | Thesis            | 2019 |
| 54  | Dr. Eng. Maryono, ST, MT                                  | Environment                             | Fajar Adie Nugraha           | Thesis            | 2019 |
| 55  | Dr. Ing. Suherman, ST, MT                                 | Environment                             | Sumardianto Nugroho          | Thesis            | 2019 |

Information:

- <sup>1)</sup> The title of activities that involve students in lecturer research can be in the form of Final Project, Design, Product/Service Development, or other relevant activities.

The following table 6.b is filled out by the proposer from the Study Program in the Applied Master/Master/Doctoral/Applied Doctoral program

Write down the DTPS research data that becomes the reference for the thesis/dissertation theme of the Study Program students at TS-2 to TS by following the following table 6.b format  
Table 6.b DTPS research which is the reference for the thesis/dissertation theme

| No. | Lecturer Name                               | Research Theme according to the Roadmap | Student name                   | Title of Thesis/Dissertation 1)                                                                                                                | Year |
|-----|---------------------------------------------|-----------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1   | 2                                           | 3                                       | 4                              | 5                                                                                                                                              | 6    |
| 1   | Prof. Dr. Ir. Purwanto. DEA                 | Environment                             | Ayunda Putri Andini            | Assessing Water Quality Of Ciujung River In Lebak Regency By Using Pollution Index                                                             | 2017 |
| 2   | Prof. Dr. Ir. Purwanto. DEA                 | Environment                             | Velantika                      | The Textile Waste Degradation of Indigosol Blue Dye by Fention Electrical Process                                                              | 2017 |
| 3   | Prof. Dr. Ir. Sutrisno Anggoro, M. Si.      | Environment                             | Eni Maulidiyah                 | Groundwater conservation in Batu City East Java: An ecohydrological approach                                                                   | 2017 |
| 4   | Prof. Dr. Denny Nugroho Sugianto, ST, M.Sc. | Climate                                 | Anindya Wirasatriya            | The Influence of Madden Julian Oscillation on the Formation of the Hot Event in the Western Equatorial Pacific                                 | 2017 |
| 5   | Dr. Hartuti Purnaweni, MPA                  | Environment                             | Anita Listiara                 | Environmental Concerns in the Eyes Of University Students                                                                                      | 2017 |
| 6   | Dr. Fuad Muhammad, S.Si., M.Sc.             | Environment                             | Abdul Malik                    | Analysis of Vegetation Ecosystem Litoral, Supralitoral, and Central Forests in Panjang Island, Jepara, Central Java                            | 2017 |
| 7   | Prof. Drs. Sudharto P Hadi, MES, Ph.D.      | Environment                             | Sri Sulistyowati               | The existence of High Conservation Value Forest (HCVF) in Perum Perhutani KPH Kendal to support Implementation of FSC Certification            | 2018 |
| 8   | Prof. Drs. Sudharto P Hadi, MES, Ph.D.      | Environment                             | Wiwik Yulianti                 | The Effectiveness of Building Permit Regulation for Green Open Space at Housing Estates: Case Study of Kendal Regency, Central Java, Indonesia | 2018 |
| 9   | Prof. Dr. Ir. Sutrisno Anggoro, M.Sc.       | Environment                             | Bambang Sujono                 | Study of Carrying Capacity Assessment for Natural Fisheries in Jatibarang Reservoir in Semarang City                                           | 2018 |
| 10  | Dr. Kismartini, M.Si.                       | Environment                             | Dawn Ifan Dolly                | The Land Use Change from Agricultural to Non-Agricultural in Bungo Regency, Jambi Province, Indonesia                                          | 2018 |
| 11  | Dr. Hartuti Purnaweni, MPA                  | Environment                             | Theresia Vika Ayuningrum       | Activities in the Mining Sector: Current Status and Challenges Ahead Limestone Mining in Nusakambangan                                         | 2018 |
| 12  | Dr. Hartuti Purnaweni, MPA                  | Environment                             | Son of Rizal Ichsan Syah Putra | Land Use and River Degradation Impact of Sand and Gravel Mining                                                                                | 2018 |
| 13  | Dr. Fuad Muhammad, S.Si., M.Sc.             | Environment                             | Muhammad Arif Setiawan         | Stakeholder Analysis in Utilizing of Environmental Services and Natural Attractions in Tuk Semuncar Utilization Zone of Mount Merbabu          | 2018 |

| No. | Lecturer Name                               | Research Theme according to the Roadmap | Student name              | Title of Thesis/Dissertation 1)                                                                                                                                                                                       | Year |
|-----|---------------------------------------------|-----------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1   | 2                                           | 3                                       | 4                         | 5                                                                                                                                                                                                                     | 6    |
| 14  | Dr. Jafron Wasiq Hidayat, M.Sc.             | Environment                             | Rahmawati Ervina          | Vegetation Structure of Ebony Leaf Monkey ( <i>Trachypithecus auratus</i> ) Habitat in Kecubung Uluanang Nature Preservation Central Java-Indonesia                                                                   | 2018 |
| 15  | Dr. Eng. Maryono, ST, MT                    | Environment                             | Noor Amalia Chusna        | Preliminary Evaluation of Method to Monitor Landfills Resilience Against Methane Emission                                                                                                                             | 2018 |
| 16  | Dr. Eng. Maryono, ST, MT                    | Environment                             | Aji Uhfatun Muzdalifah    | Preliminary Identification of Urban Park Infrastructure Resilience in Semarang Central Java                                                                                                                           | 2018 |
| 17  | Dr. Eng. Maryono, ST, MT                    | Environment                             | Dea Chintanya             | Comparing Value of Urban Green Space Using Contingent Valuation and Travel Cost Methods                                                                                                                               | 2018 |
| 18  | Prof.Dr.Ir. Purwanto, DEA                   | Environment                             | Armas Arifin Arbunowo     | CO-Benefit Approach in Utilizing Textile Industry WWTP Sludge as Mixture Material for Bricks                                                                                                                          | 2019 |
| 19  | Prof. Dr. Ir. Purwanto, DEA                 | Environment                             | Aulia Firda Alfiana       | Study of Opportunities for the Application of Clean Production in the Soy Sauce Making Industry of Shrimp Cap in Grobogan Regency                                                                                     | 2019 |
| 20  | Prof. Dr. Ir. Azis Nur Bambang, MS          | Environment                             | Mohamad Heri Hidayattuloh | Determination of Environmental-Based Budget Planning Priorities in the Tegal Regency Government                                                                                                                       | 2019 |
| 21  | Prof. Dr. Ir. Azis Nur Bambang, MS          | Environment                             | Siti Robiah Nurbaiti      | Community Participation in the Program for Providing Clean Water Facilities Based on Community Management (Case of Implementation of Exxon Mobil Cepu Limited Corporate Social Responsibility (CSR) in Gayam Village) | 2019 |
| 22  | Prof. Ir. Didi Dwi Anggoro M.Eng., Ph.D.    | Environment                             | Muhammad Muslihun         | Environmental Studies in Paid Plastic Bag Policy in Semarang City                                                                                                                                                     | 2019 |
| 23  | Prof. Dr. rer. nat. Imam Buchori, S.T       | Environment                             | Indraya Kusyuniadi        | Effectiveness of Supervision of Spatial Planning Policy in the Karangsambung Geological Reserve Area                                                                                                                  | 2019 |
| 24  | Prof. Dr. Denny Nugroho Sugianto, ST, M.Sc. | Coastal                                 | Atmari                    | Growth of Mangrove Vegetation in the Coastal Area of North Demak Based on Remote Sensing Data                                                                                                                         | 2019 |
| 25  | Prof. Dr. Hadiyanto, ST, M.Sc.              | Environment                             | Vita Rosmiati             | Environmental Impact Assessment on Plastic Waste Recycling Process with Lift Cycle Assessment Approach                                                                                                                | 2019 |
| 26  | Prof. Dr. Hadiyanto, ST, M.Sc.              | Environment                             | Yoyon Wahyono             | Life Cycle Assessment on Biodiesel Multi Feedstock Production Process from Used Cooking Oil, Crude Palm Oil and Crude Rapeseed Oil                                                                                    | 2019 |
| 27  | Dr. kismartini, M.Si.                       | Environment                             | Masitoh Ernawati          | The Effectiveness of the KOTAKU (City Without Slums) Program in Reducing the Area                                                                                                                                     | 2019 |

| No. | Lecturer Name                                        | Research Theme according to the Roadmap | Student name             | Title of Thesis/Dissertation 1)                                                                                                                          | Year |
|-----|------------------------------------------------------|-----------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1   | 2                                                    | 3                                       | 4                        | 5                                                                                                                                                        | 6    |
|     |                                                      |                                         |                          | of Slums in the City of Semarang                                                                                                                         |      |
| 28  | Dr. Kismartini, M.Si.                                | Environment                             | Harfin Nurulhaq          | implementation of bogor city government policies on reducing plastic waste                                                                               | 2019 |
| 29  | Dr. Hartuti Purnaweni, MPA                           | Environment                             | Diah Setianingsih        | Stakeholder Analysis in Groundwater Basin Management (CAT)                                                                                               | 2019 |
| 30  | Dr. Ing. Sudarno, ST, M.Sc.                          | Environment                             | Agus Makfur              | Blorong River Water Pollution Control Strategy as a Raw Water Source for Kendal Regency                                                                  | 2019 |
| 31  | Mochamad Arief Budihardjo, ST, M.Eng, Env.Eng, Ph.D. | Environment                             | Nurul Yaqin              | Mocaf (Modified Cassava Flour) Wastewater Quality Bioindicator Based on Peroxidase Enzyme                                                                | 2019 |
| 32  | Dr.rer.nat Thomas Triadi P, ST, M.Eng.               | Environment                             | Tri Retnaning Nur Amanah | Multivariate Statistical Analysis and Spatial Analysis for Hydrochemical Assessment of Groundwater in Semarang City                                      | 2019 |
| 33  | Dr. Jafron Wasiq Hidayat, M.Sc.                      | Environment                             | Reszi Ariefianda         | Assessment of the Suitability of Marine Tourism on Natural Tourism Objects on Lengkuas Island, Sijuk District, Belitung Regency, Bangka Belitung Islands | 2019 |
| 34  | Dr. Jafron Wasiq Hidayat, M.Sc.                      | Environment                             | Lukman Ari Bahtiar       | Control of Crude Oil Waste Pollution Using Water Hyacinth (Eichhornia Crassipes) Phytoremediation                                                        | 2019 |
| 35  | Dr. Eng. Maryono, ST, MT                             | Environment                             | Herianto                 | Technical Study of Waste Management in Palangka Raya City Kota                                                                                           | 2019 |

Information:

1) Student Thesis/Dissertation which is part of the lecturer's research agenda.

## 7. Community Service (PKM)

### DTPS PKM Involving Students

The following table 7 is filled out by the proposer from the Study Program in the Diploma Three/Bachelor/Applied Bachelor program.

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## 8. Outcomes and Achievements of Tridharma

### a. Learning Outcomes

Write down the data on the Grade Point Average (GPA) of graduates in the last 3 years by following the format of Table 8.a below. The data is complemented by the number of graduates in each year of graduation.

Table 8.a Graduate GPA

|  |  |                           |
|--|--|---------------------------|
|  |  | Grade Point Average (GPA) |
|--|--|---------------------------|

| Graduation year | Number of Graduates | Min. | Average | Max. |
|-----------------|---------------------|------|---------|------|
| 1               | 2                   | 3    | 4       | 5    |
| TS-2            | 22                  | 3.30 | 3.65    | 3.90 |
| TS-1            | 51                  | 3.15 | 3.60    | 3.95 |
| TS              | 47                  | 3.30 | 3.63    | 3.95 |

### b. Student Achievement

The data is accompanied by a description of the achievement activities followed (name of activity, year, level, and achievements).

Table 8.b.1 Academic Achievement

| No. | Name of activity                                                                 | Acquisition Time (YYYY) | Level        |          |               | Achievements                              |
|-----|----------------------------------------------------------------------------------|-------------------------|--------------|----------|---------------|-------------------------------------------|
|     |                                                                                  |                         | Local/Region | National | International |                                           |
| 1   | 2                                                                                | 3                       | 4            | 5        | 6             | 7                                         |
| 1   | The 3rd International Conference on Energy, Environmental and Information System | 2018                    |              |          | V             | 1st Place Best Presenter                  |
| 2   | The 4th International Conference on Energy, Environmental and Information System | 2019                    |              |          | V             | 1st Place Best Presenter                  |
| 3   | International publication                                                        | 2019                    |              |          | V             | Publications in international journals Q1 |
| 4   | Batang Regency Regional Research Competition 2018                                | 2018                    |              | V        |               | Winner                                    |

Information:

<sup>1)</sup> Put a check mark V in the appropriate column.

### c. Educational Effectiveness and Productivity

Write down student and graduate data by following the following Table 8.c format.

Table 8.c. Study Period Graduates of the Study Program

To be completed by the proposer from the Study Program in the Applied Master/Master Program

| Entry Year | Number of Students Accepted | Number of Graduates |             |             |           | Number of Graduates to the End of TS | Average study period |
|------------|-----------------------------|---------------------|-------------|-------------|-----------|--------------------------------------|----------------------|
|            |                             | End of TS-3         | End of TS-2 | End of TS-1 | End of TS |                                      |                      |
| 1          | 2                           | 3                   | 4           | 5           | 6         | 7                                    | 8                    |
| TS-3       | 55                          |                     | 2           | 33          | 5         | 40                                   | 2.3                  |
| TS-2       | 22                          |                     |             | 7           | 13        | 20                                   | 1.8                  |
| TS-1       | 36                          |                     |             |             | 13        | 13                                   | 1.7                  |

Information:

<sup>1)</sup> Does not include transfer students.

TS = Last full academic year.

TS-n = Academic year n years before TS.

#### d. Graduate Competitiveness

The following table 8.d.2 is filled out by the proposer from the Study Program in the Diploma Three/Bachelor/Applied Bachelor/Master/Applied Master program.

Write down the data on the suitability of the graduate's field of work when he gets his first job in 3 years, starting from TS-4 to TS-2, following the format of Table 8.d.2 below. The data is taken from the results of graduate tracing studies.

Table 8.d.2 Suitability of Graduates' Field of Work

| Graduation year | Number of Graduates | Number of Graduates Tracked | Number of graduates with appropriate level of work field |           |           |
|-----------------|---------------------|-----------------------------|----------------------------------------------------------|-----------|-----------|
|                 |                     |                             | Low 1)                                                   | Medium 2) | 3) Height |
| 1               | 2                   | 3                           | 4                                                        | 5         | 6         |
| TS-4 (2015)     | 57                  | 57                          | 6                                                        | 34        | 17        |
| TS-3 (2016)     | 31                  | 31                          | 4                                                        | 19        | 8         |
| TS-2 (2017)     | 32                  | 32                          | 4                                                        | 19        | 9         |
| amount          | 120                 | 120                         | 14                                                       | 72        | 34        |

Information:

- 1) The type of work/position in the job does not match or is not in accordance with the graduate profile planned in the curriculum document.
- 2) The type of work/position in the job is quite in accordance with the graduate profile planned in the curriculum document.
- 3) The type of work/position in the job is appropriate or very in accordance with the graduate profile planned in the curriculum document.

#### e. Graduate Performance

The following table 8.e.2 is filled out by the proposer from the Study Program in the Diploma Three/Bachelor/Applied Bachelor/Master/Applied Master program.

Write down the results of measuring graduate user satisfaction based on the following aspects:

- 1) ethics, 2) expertise in the field of science (main competence), 3) foreign language skills, 4) use of information technology, 5) communication skills, 6) cooperation and 7) development yourself, by following the following Table 8.e.2 format. The data is taken from the results of graduate tracing studies.

Table 8.e.2 User Satisfaction

| No | Ability Type | User Satisfaction Level |      |        |      | Follow Up Plan by UPPS/PS |
|----|--------------|-------------------------|------|--------|------|---------------------------|
|    |              | Very good               | Good | Enough | Less |                           |
| 1  | 2            | 3                       | 4    | 5      | 6    | 7                         |
| 1  | Ethics       | 75                      | 23   | 2      | 0    |                           |

| No     | Ability Type                                        | User Satisfaction Level |      |        |      | Follow Up Plan by UPPS/PS |
|--------|-----------------------------------------------------|-------------------------|------|--------|------|---------------------------|
|        |                                                     | Very good               | Good | Enough | Less |                           |
| 1      | 2                                                   | 3                       | 4    | 5      | 6    | 7                         |
| 2      | Expertise in the field of science (main competence) | 73                      | 24   | 3      | 0    |                           |
| 3      | Foreign language skills                             | 79                      | 16   | 5      | 0    |                           |
| 4      | Use of information technology                       | 80                      | 19   | 1      | 0    |                           |
| 5      | Communication skills                                | 76                      | 21   | 3      | 0    |                           |
| 6      | Teamwork                                            | 71                      | 17   | 12     | 0    |                           |
| 7      | Self-development                                    | 77                      | 13   | 10     | 0    |                           |
| amount |                                                     | 75.9                    | 19   | 5.1    | 0    |                           |

#### f. Student Research and PKM Outcomes

The following table 8.f.1 is filled out by the proposer from the Study Program in the Bachelor/Master/Doctorate program.

Write down the number of student scientific publications, produced independently or with DTPS, in the last 3 years by following the format of Table 8.f.1 below. The title of the publication must be relevant to the field of study program.

Table 8.f.1 Student Scientific Publications

| No | Publication Media                   | Number of Titles |      |    | amount   |
|----|-------------------------------------|------------------|------|----|----------|
|    |                                     | TS-2             | TS-1 | TS |          |
| 1  | 2                                   | 3                | 4    | 5  | 6        |
| 1  | Unaccredited national journal       | 0                | 0    | 0  | NA1= 0   |
| 2  | Accredited national journal         | 0                | 0    | 1  | NA2= 1   |
| 3  | International Journal               | 3                | 7    | 1  | NA3= 11  |
| 4  | Reputable international journal     | 8                | 8    | 1  | NA4= 17  |
| 5  | Regional/local/college seminars     | 0                | 0    | 0  | NB1= 0   |
| 6  | National Seminar                    | 0                | 0    | 15 | NB2= 15  |
| 7  | International Seminar               | 26               | 80   | 25 | NB3= 131 |
| 8  | Writing in regional mass media      | 0                | 0    | 0  | NC1= 0   |
| 9  | Writing in the national mass media  | 0                | 0    | 0  | NC2= 0   |
| 10 | Writing in international mass media | 0                | 0    | 0  | NC3= 0   |

The following table 8.f.1 is filled out by the proposer from the Study Program in the Applied Bachelor/Applied Master/Applied Doctorate program.

Write down the number of student shows/exhibitions/presentations/scientific publications, which were produced independently or with DTPS, in the last 3 years by following the format

of Table 8.f.1 below. The title of the show/exhibition/presentation/scientific publication must be relevant to the field of study program.

Table 8.f.1 Shows/exhibitions/presentations/Scientific publications of students

| No | Type                                                            | Number of Titles |      |    | amount |
|----|-----------------------------------------------------------------|------------------|------|----|--------|
|    |                                                                 | TS-2             | TS-1 | TS |        |
| 1  | 2                                                               | 3                | 4    | 5  | 6      |
| 1  | Publications in non-accredited national journals                |                  |      |    |        |
| 2  | Publication in accredited national journals                     |                  |      |    |        |
| 3  | Publication in international journals                           |                  |      |    |        |
| 4  | Publication in reputable international journals                 |                  |      |    |        |
| 5  | Publication at regional/local/college seminars                  |                  |      |    |        |
| 6  | Publication at national seminars                                |                  |      |    |        |
| 7  | Publication at international seminars                           |                  |      |    |        |
| 8  | Performances/exhibitions/presentations in regional forums       |                  |      |    |        |
| 9  | Performances/exhibitions/presentations in national level forums |                  |      |    |        |
| 10 | Performances/exhibitions/presentations in international forums  |                  |      |    |        |

The following table 8.f.2 is filled out by the proposer from the Study Program in the Applied Master/Masters/Doctoral/Applied Doctoral program.

Write the title of the student's scientific article, which was produced independently or with DTPS, which was cited in the last 3 years by following the format of Table 8.f.2 below. The title of the cited article must be relevant to the field of study program.

Table 8.f.2 Student Scientific Works cited

| No | Student name        | Title of Citation Article (Journal/Book, Volume, Year, Number, Page)                                                                                                    | Number of Citation |
|----|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1  | 2                   | 3                                                                                                                                                                       | 4                  |
| 1  | Said Jumrin         | Motivation and Perception of Tourists as Push and Pull Factors to Visit National Park (E3S Web Conferences, Vol 31, 2018, Pg 08022)                                     | 4                  |
| 2  | Dea Chintatya       | Comparing Value of Urban Green Space Using Contingent Valuation and Travel Cost Methods (E3S Web Conferences, Vol 31, 2018, Pg 07008)                                   | 1                  |
| 3  | Herry Setiawan      | The Management of Toxic and Hazardous Waste Materials In The Food Industry (E3S Web Of Conferences, Vol 73, 2018, Pg 07020)                                             | 1                  |
| 4  | Mardhika Sapto Sari | Flare Gas Recovery As One Of The Clean Development Mechanism (CDM) practices (IOP Conferences Series: Earth and Environmental Science, Vol 200, 2018, No 1 Page 012023) | 1                  |

| No | Student name             | Title of Citation Article (Journal/Book, Volume, Year, Number, Page)                                                                                                                                                                                            | Number of Citation |
|----|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1  | 2                        | 3                                                                                                                                                                                                                                                               | 4                  |
| 5  | Alexander Melat Aryasa   | The study of environmental carrying capacity for sustainable tourism in Telaga Warna Telaga Pengilon Nature Park, Dieng Plateau, Central Java (IOP Conference Series: Earth and Environmental Science, Vol 70, 2017, Page 012003)                               | 2                  |
| 6  | Agus Tjahjono            | Analysis of Heavy Metal Content of Pb in Ballast Water Tank of Commercial Vessels in Port of Tanjung Emas Semarang, Central Java Province (AIP Conference Proceedings, Vol 1818, 2017, No 1, Hal 020061)                                                        | 5                  |
| 7  | Siti Robiah Nurbaiti     | Factors Affecting Community Participation in the Implementation of Corporate Social Responsibility Program (Biology Education Conference, Vol 14, 2017, No 1, Page 224-228)                                                                                     | 9                  |
| 8  | Rina Mulyanti            | Wastewater treatment by nanofiltration membranes (IOP Conference Series: Earth and Environment Science, Vol 142, 2018, No 1, Page 012017)                                                                                                                       | 6                  |
| 9  | Elijah Sawitri           | The difference of level CO2 emissions from the transportation sector between weekdays and weekend days on the City Centre of Pemalang (IOP Conference Series : Earth and Environment Science, Vol 70, 2017, No 1, Page 012010)                                  | 1                  |
| 10 | Ainie Khuriati           | Modeling of Heating Value of Municipal Solid Waste Based on Ultimate Analysis Using Multiple Stepwise Linear Regression in Semarang (ARPN Journal of Engineering and Applied Science, Vol 12, 2017, No 9, Page 2870-2876)                                       | 4                  |
| 11 | Fianda Revina Widyastuti | Biogas Potential from the Treatment of Solid Waste of Dairy Cattle: Case Study at Bangka Botanical Garden Pangkalpinang (International Journal of Waste Resources, Vol 3, 2014, No 2, Pages 1-4)                                                                | 3                  |
| 12 | Jimmy Margomgom Tambunan | Study of Environmental Quality and Suitability of Tanjung Pesona Beach Tourism, Bangka Regency (Undip E-Journal, 2013, Pages 356-362)                                                                                                                           | 17                 |
| 13 | Abdul Fatah              | Theology-Based Waste Management Concept (Journal of Environmental Science, Vol 11, 2013, No. 1, Pages 84-91)                                                                                                                                                    | 6                  |
| 14 | Mukhlisi                 | Status of the Sustainability of Mangrove Forest Management in Sidodadi Village, Padang Cermin District, Pesawaran Regency, Lampung Province (Geography Journal: Information Media for Geographical Development and Profession, Vol 11, 2014, No 1, Pages 58-70) | 2                  |
| 15 | Hendri Micky             | Mining Permits and Supervision Implementation Policy within the Framework of Environmental Management in Bandar Lampung (Advanced Science Letters, Vol 23, 2017, No 3, Page 2567-2569)                                                                          | 1                  |
| 16 | Toto Aryanto             | Carrying Capacity of the Bukit Raya Hiking Trail in the Bukit Baka Raya National Park, West Kalimantan (Journal of Environmental Science, Vol 14, 2016, No 2, pp 72-76)                                                                                         | 1                  |
| 17 | Elesvera Destry          | Evaluation on Sustainability of Technological Dimension Biopore Absorption Hole Management For Soil Water Conservation in Semarang City (Journal of Soil Science and Agroclimatology, Vol 12, 2015, No 1, Pages 1-9)                                            | 1                  |
| 18 | Ira Adiatma              | Fishermen Adaptation to Climate Change in the Utilization of Coastal Space (Case Study: Batu Behole Village, Bangka) (Proceedings of the National Seminar on Natural Resources and Environmental Management, 2013)                                              | 1                  |
| 19 | Abdul Rowiq              | Rainwater Harvesting as Fulfillment of Clean Water Needs for Flood Refugees (Proceeding Biology Education Conference: Biology, Science, Environmental, and Learning, Vol 10, 2013, No 1)                                                                        | 1                  |

| No | Student name                               | Title of Citation Article (Journal/Book, Volume, Year, Number, Page)                                                                                                                                                                                                            | Number of Citation |
|----|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1  | 2                                          | 3                                                                                                                                                                                                                                                                               | 4                  |
| 20 | Dwi Hardoyo                                | Planning of Educational Tourism Activities in the Rinjani Lombok Geopark Area Based on Environmental Carrying Capacity (Aik Berik Regional Study) (Journal of Environmental Science Undip, Vol 14, 2016, No 2, Page 103-107)                                                    | 3                  |
| 21 | Iwan Chandra Binsar Hamonangan Simanjuntak | Carrying capacity of Kedungombo reservoir for net cage culture (E3S Web of Conferences, Vol 73, 2018, Pg 03018)                                                                                                                                                                 | 1                  |
| 22 | Dyah Agustini                              | Water Quality Analysis and Water Pollution Control Strategies of the Blukar River, Kendal Regency (Journal of Precipitation: Communication Media and Development of Environmental Engineering, Vol 9, 2012, No 2, pp 64-71)                                                     | 44                 |
| 23 | Ma'in                                      | Study of Environmental Impacts of Application of Biofloc Technology in Vaname Shrimp Cultivation Activities with the Life Cycle Assessment Method (Journal of Environmental Science, Vol 11, 2013, No 2, Pages 110-119)                                                         | 6                  |
| 24 | Ira Tri Susanti                            | The Trophic Tatus of the Manggar Reservoir in Balikpapan City and its Management Strategy (Journal of Precipitation: Communication Media and Environmental Engineering Development, Vol 9, 2012, No 2, pp 72-78)                                                                | 3                  |
| 25 | I Mohamed Oukhan                           | The Ability of Aquatic Weed Water Hyacinth and Water Lettuce To Reduce Heavy Metal Manganese (Mn), Zinc (Zn) and Iron (Fe) (Science Journal of Pure and Applied Chemistry, Vol 2015, 2015, Pages 1-15)                                                                          | 1                  |
| 26 | Purwono                                    | Use of Microbial Fuel Cells (MFCs) Reactor Technology in Tofu Industrial Liquid Waste Treatment to Generate Electrical Energy (Journal of Precipitation: Communication Media and Development of Environmental Engineering, Vol 12, 2015, No 2, Pages 57-65)                     | 3                  |
| 27 | Yulian Mara Alkuma                         | Development of Alternative Energy Potential by Utilizing Palm Oil Liquid Waste as a New Renewable Energy Source in East Kotawaringin Regency (Undip Journal of Environmental Science, Vol 14, 2016, No 2, pp 96-102)                                                            | 2                  |
| 28 | Yadi Suryadi                               | Climate Change In Indonesia (Case Study : Medan, Palembang, Semarang) (E3S Web of Conferences, Vol 31, 2018, Page 09017)                                                                                                                                                        | 2                  |
| 29 | Diah Auliyani                              | The Effect of Mangrove Rehabilitation on the Socio-Economic Condition of Coastal Communities in Rembang Regency (Undip E-Journal, 2013, pp. 317-321)                                                                                                                            | 6                  |
| 30 | Yusa Eko Saputro                           | Community Based Waste Management Through Waste Banks (Indonesian Journal of Conservation, Vol 4, 2015, No 1)                                                                                                                                                                    | 5                  |
| 31 | Yusdi Vari Afandi                          | Community-Based Domestic Communal Wastewater Management in Probolinggo City (E-Journal Undip, 2013, pp 96-103)                                                                                                                                                                  | 1                  |
| 32 | Nur Anisa Ariyani                          | Implementation of Conservation Policy for Preservation and Sustainable Use of Biological Resources and Their Ecosystems in Karimunjawa National Park (Proceeding Biology Education Conference: Biology, Science, Environmental, and Learning, Vol 14, 2017, No 1, Page 206-213) | 1                  |
| 33 | Anisa Putri Febriani                       | Analysis of Urban Forest Needs as Anthropogenic (CO <sub>2</sub> ) Gas Absorbent in Semarang City (E3S Web of Conferences, Vol 31, 2018, Page 07007)                                                                                                                            | 1                  |
| 34 | Melia Ariyanti                             | Analysis of the Application of Clean Production Towards an Environmentally Friendly Nata De Coco Industry (Journal of Research on Industrial Pollution Prevention Technology, Vol 5, 2014, No 2, Page 45-50)                                                                    | 7                  |

| No     | Student name             | Title of Citation Article (Journal/Book, Volume, Year, Number, Page)                                                                                                                                                                           | Number of Citation |
|--------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| 1      | 2                        | 3                                                                                                                                                                                                                                              | 4                  |
| 35     | Tri Retnaning Nur Amanah | Application of Cluster Analysis and Principal Component Analysis for Assessment of Groundwater Quality—A Study in Semarang, Central Java, Indonesia (IOP Conference Series: Earth and Environmental Science, Vol 248, 2019, No 1, Page 012063) | 2                  |
| 36     | Dwi Nur Yuliyani         | Study Of Spatial Effect Distribution Of Groundwater Quality On Rob Disaster In Semarang City (E3S Web of Conferences, Vol 73, 2018, Page 03027)                                                                                                | 1                  |
| amount |                          |                                                                                                                                                                                                                                                | 156                |

The following table 8.f.4 is filled out by the proposer from the Study Program in the Applied Bachelor/Bachelor/Master/Applied Master/Doctorate/Applied Doctoral program.

Write down the research outputs and other PKM outputs produced by students, either independently or with DTSP, in the last 3 years by following the following table 8.f.4 format. The type and title of the output must be relevant to the field of study program.

Table 8.f.4 Other research/PKM outputs produced by students

| No | Title of Research Output/PKM                                                                                                                                                                        | Year   | Information                                        |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------|
| 1  | 2                                                                                                                                                                                                   | 3      | 4                                                  |
| I  | Books with ISBNs, Book Chapters                                                                                                                                                                     |        |                                                    |
|    | 1. Formulation of a Thousand Infrastructure Development Programs                                                                                                                                    | 2019   | MIL students and Dr. Eng. Maryono, ST, MT          |
|    | 2. Method of Prioritizing Infrastructure Development                                                                                                                                                | 2019   | MIL 2 students and Dr. Eng. Maryono, ST, MT        |
|    | 3. Indonesia's Compliance Pattern with the Convention on International Trade in Endangered Species of Wild Flora and Fauna in Overcoming the Illegal Trade in Pangolins between Indonesia and China | 2019   | Afifah Rahmi Andini and Dr. Hartuti Purnaweni, MPA |
|    | amount                                                                                                                                                                                              | ND = 3 |                                                    |

Information:

- 1) Outcomes of research/PKM that are recognized by Intellectual Property Rights (IPR) must be proven by a letter of determination by the Ministry of Law and Human Rights or other competent ministries.