

# Staff Handbook

Please fill out and submit one table per person.

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|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------|
| Name                                                    | Dr. Eminugroho Ratna Sari, S.Si., M.Sc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                          |                        |
| Post                                                    | Mathematics / Applied Mathematics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                          |                        |
| Academic career                                         | Doctoral Degree (Subject: Mathematics)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Universitas Gadjah Mada (UGM), Indonesia | 2024                   |
|                                                         | Master Degree (Subject: Mathematics)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Universitas Gadjah Mada (UGM), Indonesia | 2009                   |
|                                                         | Undergraduate Degree (Subject: Applied Mathematics)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Universitas Gadjah Mada (UGM), Indonesia | 2007                   |
| Employment                                              | Position: Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Employer: UNY                            | Period: 2009 - Current |
| Research and development projects over the last 5 years | <ol style="list-style-type: none"> <li><b>1. MetaMathics: Laboratorium Virtual Matematika Berbasis Metaverse dan AI Terpersonalisasi untuk mahasiswa STEM Indonesia-China (Partners: Dwi Lestari, Year: 2025, funding: Rp 75.000.000,-)</b></li> <li><b>2. Kontrol Optimal pada Model Pneumonia Berdasarkan Kelompok Umur dengan Pengobatan dan Vaksinasi (Partners: Dwi Lestari, Nikenasih B., Year: 2025, funding: Rp.18.000.000,-)</b></li> <li><b>3. Pengembangan Aplikasi Berbasis Web untuk Optimasi Portofolio Menggunakan Pendekatan Klasik dan Hybrid (Partners: Dr. Retno Subekti, S.Si., M.Sc.; Rizky Nur'aini, S.Stat., M.Stat., Period: 2025, Amount of financing: Rp. 50.000.000)</b></li> <li><b>4. Pemodelan Matematika Penyebaran Penyakit Kanker di Tingkat Sel pada Kasus Kanker Serviks dan Limfoma (Partners: Fajar Adi Kusumo (UGM), Sulasri Suddin, Year: 2023, funding: 75.000.000)</b></li> <li><b>5. Pemodelan Matematika Biologi Tingkat Sel untuk Prognosis Penyakit Kanker (Partners: Fajar Adi Kusumo (UGM), Fitriana Yuli S., Year: 2021, funding: 70.000.000)</b></li> </ol> |                                          |                        |
| Industry collaborations over the last 5 years           | <ol style="list-style-type: none"> <li><b>1. Sosialisasi Penggunaan Software JASP dalam Pengolahan dan Analisis Data (Workshop on the Use of JASP Software for Data Processing and Analysis) Year: 2025 Partners: Retno Subekti, Nur Insani, Fitriana Yuli Saptaningtyas, Indira Ihnu Brilliant (UNY, Indonesia) Amount of financing: Rp. 30.000.000,-</b></li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                          |                        |

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|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------|
| Name                                         | Dr. Eminugroho Ratna Sari, S.Si., M.Sc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                          |                        |
| Post                                         | Mathematics / Applied Mathematics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                          |                        |
| Academic career                              | Doctoral Degree (Subject: Mathematics)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Universitas Gadjah Mada (UGM), Indonesia | 2024                   |
|                                              | Master Degree (Subject: Mathematics)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Universitas Gadjah Mada (UGM), Indonesia | 2009                   |
|                                              | Undergraduate Degree (Subject: Applied Mathematics)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Universitas Gadjah Mada (UGM), Indonesia | 2007                   |
| Employment                                   | Position: Lecturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Employer: UNY                            | Period: 2009 - Current |
|                                              | <b>Industry collaborations:</b> Sekolah Tinggi Keguruan dan Ilmu Pendidikan (STKIP) Yayasan Pendidikan Ujung Pandang (YPUP) Makassar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                          |                        |
| Patents and proprietary rights               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                          |                        |
| Important publications over the last 5 years | <p><b>International &amp; National Journal Publications</b></p> <ol style="list-style-type: none"> <li>1. Sari, E.R., Puspita, N.P., Farah, R.N. <b>Prevention of dengue virus transmission: insights from host-vector mathematical model</b>, Mathematical Modelling and Control, Vol. 5, No. 2, 2025, <a href="https://www.aimspress.com/article/doi/10.3934/mmc.2025010">https://www.aimspress.com/article/doi/10.3934/mmc.2025010</a> (Q2-Indexed)</li> <li>2. Ma, R. N. F. A. R., Azmar, N. A. S. S., Azmi, M. S. M., Abd Karim, N. S., Husin, N. H. M., Misron, N., &amp; Sari, E. R. <b>Assessing Criteria for Photovoltaic Electric Vehicle Charging Stations in Malaysia: Analytic Hierarchy Process and Content Validity Index Analysis</b>. Semarak International Journal of Civil and Structural Engineering, 1(1), 42-52, 2024, <a href="https://doi.org/10.37934/sijcse.1.1.4252a">https://doi.org/10.37934/sijcse.1.1.4252a</a></li> <li>3. Sari, E. R., Aryati, L., &amp; Adi-Kusumo, F. <b>An age-structured SIPC model of cervical cancer with immunotherapy</b>. AIMS Mathematics, 9(6), 14075-14105, 2024, <a href="https://www.aimspress.com/article/doi/10.3934/math.2024685">https://www.aimspress.com/article/doi/10.3934/math.2024685</a> (Q2-Indexed)</li> <li>4. Sari, E. R., Adi-Kusumo, F., &amp; Aryati, L. <b>Mathematical analysis of a SIPC age-structured model of cervical cancer</b>. Mathematical Biosciences and Engineering, 19(6), 6013-6039, 2022 <a href="https://www.aimspress.com/article/doi/10.3934/mbe.2022281">https://www.aimspress.com/article/doi/10.3934/mbe.2022281</a> (Q2-Indexed)</li> <li>5. Hidayati, N., Sari, E. R., &amp; Waryanto, N. H. (2021). <b>Mathematical model of Cholera spread based on SIR: Optimal control</b>. PYTHAGORAS: Jurnal Matematika dan Pendidikan Matematika, 16(1), 70-83. <a href="https://journal.uny.ac.id/index.php/pythagoras/article/view/35729">https://journal.uny.ac.id/index.php/pythagoras/article/view/35729</a></li> </ol> |                                          |                        |

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|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------|
| Name                                                  | <i>Dr. Eminugroho Ratna Sari, S.Si., M.Sc.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                 |                               |
| Post                                                  | <i>Mathematics / Applied Mathematics</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                 |                               |
| Academic career                                       | <i>Doctoral Degree (Subject: Mathematics)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <i>Universitas Gadjah Mada (UGM), Indonesia</i> | <i>2024</i>                   |
|                                                       | <i>Master Degree (Subject: Mathematics)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <i>Universitas Gadjah Mada (UGM), Indonesia</i> | <i>2009</i>                   |
|                                                       | <i>Undergraduate Degree (Subject: Applied Mathematics)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <i>Universitas Gadjah Mada (UGM), Indonesia</i> | <i>2007</i>                   |
| Employment                                            | <i>Position: Lecturer</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <i>Employer: UNY</i>                            | <i>Period: 2009 - Current</i> |
|                                                       | <p><i>(Sinta-2 Indexed)</i></p> <p><b>International Conference</b></p> <p><b>6.</b> Sari, E.R., Aryati, L., Kusumo, F.A., <b>Mathematical Model of Cancer Cell: The Dynamical Analysis</b>, International Conference on Mathematics, Computational Sciences and Statistics, Indonesia, 29th September 2020.</p> <p><b>7.</b> Sari, E.R., Aryati, L., Kusumo, F.A., <b>Global stability of cervical cancer cell model based on age structured</b>, Biomath, University of Pretoria, June 20 - 25, 2021.</p> <p><b>8.</b> Sari, E.R., Aryati, L., Kusumo, F.A., <b>Mathematical Modeling of Cervical Cancer Cells Based on Age-Structured</b>, ICRIEMS, 10 – 11 August 2023</p> |                                                 |                               |
| Activities in specialist bodies over the last 5 years | <b>Organisation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Role</b>                                     | <b>Period</b>                 |
|                                                       | <i>Indonesian Mathematical Society (IndoMS Wilayah DIY Jateng)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <i>Sekretaris</i>                               | <i>2025 - 2026</i>            |
|                                                       | <i>Indonesian Bio-Mathematical Society (IBMS)</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <i>Member</i>                                   | <i>2021 - current</i>         |