

STAFF HANDBOOK



Name	Dr. Eko Hariyono, M.Pd.			
Position	Lecturer of Earth and Space Science, Geophysics, Innovative Learning, and Curriculum Physics Analysis			
	Associate Professor in Science Education since 2014			
Academic Career	Degree	University	Year	
	<i>Graduate program at Department of Physics Education (S-1 Program)</i>	<i>State University of Surabaya (IKIP Surabaya) Indonesia</i>	<i>1993-1997</i>	
	<i>Postgraduate Program in Science Education (Masterprogram)</i>	<i>State University of Surabaya (Unesa) Indonesia</i>	<i>1999-2002</i>	
	<i>Doctorate program in Science Education</i>	<i>Indonesia University of Education</i>	<i>2014-2018</i>	
Employment	Position	Employer	Year	
	<i>Associate Professor on Science Education</i>	<i>Unesa, Indonesia</i>	<i>2014-Now</i>	
	<i>Coordinator of Master Program of Science Education</i>	<i>Postgraduate Program, Unesa</i>	<i>2019-Now</i>	
Research and Development Project Over the Last 5 Years	Title	Funder	Year	Amount of Financing (million)
	<i>Pengembangan Model Pembelajaran Fisika Berbasis Pola Argumentasi Toulmin pada Matakuliah IPBA untuk Meningkatkan Keterampilan Berpikir Kritis Mahasiswa</i>	<i>PDUPT-DRTPM On-Going</i>	<i>2023</i>	<i>53,7</i>
	<i>Pengembangan Projecy STEAM Berbasis ESD dalam Meningkatkan Kemampuan Menyelesaikan Masalah bagi Mahasiswa Calon Guru IPA di Indonesia</i>	<i>Penelitian Kebijakan FMIPA</i>	<i>2023</i>	<i>20</i>
	<i>Pengembangan Modul Ajar Mata Kuliah Esensial Berbasis TPACK di Prodi S2 Pendidikan Sains FMIPA Unesa</i>	<i>Penelitian Kebijakan FMIPA</i>	<i>2023</i>	<i>20</i>
	<i>Kesadaran dan Literasi Iklim Masyarakat dalam Menghadapi Bencana Akibat Perubahan Iklim: Studi Fenomenologi untuk Mendukung SDGs</i>	<i>Penelitian Kebijakan FMIPA</i>	<i>2023</i>	<i>20</i>
	<i>Pengembangan Model Pembelajaran Proyek IKLIM</i>	<i>DRTPM</i>	<i>2023</i>	<i>45</i>

	terintegrasi Education for Sustainable Development (ESD) untuk Meningkatkan Literasi Iklim Mahasiswa			
	<i>Pengembangan Modul Berbasis Web untuk Melatihkan Keterampilan Ekoliterasi Kreatif berintegrasi Model Pembelajaran PjBL</i>	<i>Penelitian Disertasi Doktor</i>	<i>2022</i>	<i>50</i>
	<i>Development of a Physics Learning Model Based on Toulmin Argumentation Patterns in IPBA Courses to Improve Students' Critical Thinking Skills</i>	<i>Penelitian Disertasi Doktor</i>	<i>2022</i>	<i>50</i>
	<i>Restrukturisasi Kurikulum Sebagai Upaya Meningkatkan Mutu Akademik di Prodi S2 Pendidikan Sains Pascasarjana Unesa (Position : Head)</i>	<i>Penelitian Kompetitif Dasar Pascasarjana</i>	<i>2022</i>	<i>25</i>
	<i>Kontribusi SOGs dalam Pendidikan Mitigasi Bencana Tsunami di Indonesia</i>	<i>Penelitian Kompetitif Dasar Pascasarjana</i>	<i>2022</i>	<i>45</i>
	<i>Implementation of Project Based Inquiry Science (PJBI-Science) by Utilizing Google Workplace for Education in Physics Learning. (Position : Head)</i>	<i>Penelitian PNB(Penelitian Kebijakan FMIPA)</i>	<i>2021</i>	<i>20</i>
	<i>Mapping the Master's Thesis Profile of Science Education Study Program Students as an Effort to Improve Research and Publication Performance. (Position: Head)</i>	<i>Penelitian PNB(Penelitian Kebijakan Pasacsarjana)</i>	<i>2021</i>	<i>25</i>
	<i>Post Review Student Scientific Literacy and Ability to Solve Environmental Problems Based on Covid 19 Issues. (Position : Head)</i>	<i>Penelitian Penugasan Pascasarjana Dana PNB</i>	<i>2020</i>	<i>25</i>
	<i>Development of a Tsunami Disaster Mitigation Learning Model for the Community</i>	<i>Penelitian Dasar Unggulan Perguruan Tinggi</i>	<i>2020</i>	<i>90,5</i>
	<i>Optimization of Field Based Approach (FBA) IPBA Learning to Develop Research Skills of Physics Students in the Field of Geosciences. (Position: Head)</i>	<i>Penelitian Dana PNB FMIPA Unesa</i>	<i>2019</i>	<i>40</i>
	<i>Capability development to resolve various earth problems through reconstruction of sustainable geoscience learning designs. (Position : Head)</i>	<i>Penelitian Dasar</i>	<i>2019</i>	<i>70,3</i>
	<i>Optimizing of volcanic data to communicate changes in volcanic eruption behaviour in Indonesia. (Position : Head)</i>		<i>2018</i>	<i>50</i>
Community Service	Title	Funder	Year	Amount of Financing (million)

Over The Last 5 Years	<i>Youth Scientific Group Training (KIR) and the use of simple science teaching aids for teachers and students at MTs YKUI Maskumabang</i>	<i>PKM Kebijakan FMIPA</i>	<i>2023</i>	<i>10</i>
	<i>TPACK-Based Teaching Material Preparation Training for Science Teachers in Malaysia</i>	<i>PKM Kebijakan FMIPA</i>	<i>2023</i>	<i>10</i>
	<i>STEAM Learning Integrated Natural Disaster Mitigation in the Free Learning Curriculum</i>	<i>PKM Kebijakan FMIPA</i>	<i>2022</i>	<i>10</i>
	<i>Training on Making Interactive Flip Book Media in Developing Science Literacy for Middle School Science Teachers in Lamongan Regency</i>	<i>PKM Kebijakan Pascasarjana</i>	<i>2022</i>	<i>15</i>
	<i>Training on Making a Simple Soil Crack Detection Tool as a Learning Media for Giri in Sawahan, Nganjuk</i>	<i>PKM Kebijakan FMIPA</i>	<i>2021</i>	<i>10</i>
	<i>ESD-Based Science Learning Tool Development Training on Climate Change Material to Increase Environmental Literacy for Middle School Science Teachers in Nganjuk Regency</i>	<i>PKM Penugasan Pascasarjana</i>	<i>2021</i>	<i>15</i>
	<i>Sensor-Based Sterilization Room Science and Technology as an Effort to Reduce the Spread of the Covid-19 Virus at Unesa Postgraduate</i>	<i>PKM Penugasan Pascasarjana</i>	<i>2020</i>	<i>20</i>
	<i>Utilization of the Piper betle (Betel) plant as a family disinfectant in the village of Tua Dinoyo, Surabaya</i>	<i>PKM Kebijakan FMIPA</i>	<i>2020</i>	<i>7</i>
	<i>Scientific Article Writing Training to Improve Scientific Publications for High School Teachers in Mojokerto Regency</i>	<i>PNBP FMIPA</i>	<i>2019</i>	<i>7,5</i>
	<i>STEM-Based Learning Training in Training Ability to Solve Problems for Middle School Science Teachers in Magetan Regency</i>	<i>PNBP Pascasarjana</i>	<i>2019</i>	<i>15</i>
	<i>Training on the Use of VLP (Volcano Learning Project) Simulation Software in Developing Community Disaster Mitigation Capacities around Kelud</i>	<i>BOPTN FMIPA</i>	<i>2018</i>	<i>7,5</i>
Industry Collaborations Over the Last 5 Years	Title	Partner		Year
Patents and Property Right	Title	Patent ID		Year
	<i>VLP (Volcano Learning Project)</i>	<i>HaKI C00201701510</i>		<i>2016, valid for 50 years from the public.</i>
	<i>Buku Model Pembelajaran OMBAK</i>	<i>HaKI 000253694/ EC00202127431</i>		<i>2021, valid for</i>

			50 years from the public.
	Buku Panduan Bilik Steril Otomatis Berbasis Sensor	HaKI 000282617/ EC00202158055	2021, valid for 50 years from the public
	Google Edu Untuk Pembelajaran Fisika	HaKI 000291159/ EC00202169825	2021, valid for 50 years from the public
	Seismologi	000253189/ EC00202127073	2021, valid for 50 years from the public
	Bahan Ajar Model Pengembangan 4D, R&D, Kemp Dan Addie	HaKI 000347770/ EC00202232171	2022, valid for 50 years from the public
Important Publications Over the Last 5 Years	Strengthening Geoscience Conception and Research Skills Through Fieldwork. Vol 1. Atlantis Highlight in Engineering(AHE) Vol 1. (495-499).		2018
	Designing Geoscience Learning for Sustainable Development: A Professional Competency Assessment for Postgraduate Students in Science Education Program. Vol. 8 Issue 2. Jurnal Penelitian Fisika dan Aplikasinya.		2018
	The effectiveness of volcanology learning through inquiry based on education for sustainable development. Journal of Science Education Vol.20.		2019
	Physics Student's Research Skills Performance: A Field-Based Approach in Geoscience Learning. <i>J. Phys.: Conf.Ser.</i> 1491 012003		2020
	SETS Vision: How To Develop Students' climate Literacy Through Physics Learning? Jurnal Inovasi pendidikan Fisika Vol.9 (3) https://jurnalmahasiswa.unesa.ac.id/index.php/inovasi-pendidikan-fisika/article/viewFile/34546/30719		2020
	Ecopreneurship-Oriented Project-Based Learning (PBL): An Approach to Enhance Students' Problem-Solving Skill. Journal o Seminar Nasional Fisika (SNF) Unesa 2019 19 October 2019, f Physics: Conference Series Vol.1491 (1) hal.012025 https://doi.org/10.1088/1742-6596/1491/1/012025		2020
	Physics Student's Research Skills Performance: A Field-Based Approach in Geoscience Learning. Journal o Seminar Nasional Fisika (SNF) Unesa 2019 19 October 2019, Physics: Conference Series Vol.1491 (1) hal.012003 https://iopscience.iop.org/article/10.1088/1742-6596/1491/1/012003/meta		2020
	ESD for physics: how to infuse education for sustainable development (ESD) to the physics curricula?. Journal of Physics: Conference Series Paper, Vol 1747, MISEIC 2020 https://doi.org/10.1088/1742-6596/1747/1/012032		2021
	The implementation of Argument Driven Inquiry (ADI) learning model to improve scientific argumentation skills of high school students Journal of Physics: Conference Series Paper, Vol 1747, MISEIC 2020 https://iopscience.iop.org/article/10.1088/1742-6596/1747/1/012046		2021
	Analysis of Temperature and Relative Humidity towards the Dispersion of CoVid-19 in Indonesia. Journal of Physics Conference Series. 1747 012030.		2021
Bibliometric Profile of Science Education Research on Argumentation and the Contribution of Indonesia. MISEIC 2021 Proceedings of the International Joint Conference on Science and Engineering		2021	

	2021 https://dx.doi.org/10.2991/aer.k.211215.085		
	<i>The Voices of Students About Climate Change: A Preliminary Research, MISEIC 2021</i> <i>Proceedings of the International Joint Conference on Science and Engineering 2021</i> https://dx.doi.org/10.2991/aer.k.211215.098	2021	
	<i>The Study of Postgraduate Students' Scientific Literacy Based on the Ability to Solve the Environmental Problems. MISEIC 2021</i> <i>Proceedings of the International Joint Conference on Science and Engineering 2021</i> https://dx.doi.org/10.2991/aer.k.211215.077	2021	
	<i>Physics Edutainment Learning based on Engklek and Ontang-Anting Games: Creating Fun Physics for Student. Journal of Physics: Conference Series, Volume 2392, Seminar Nasional Fisika Unesa 2022 (SNF Unesa 2022)</i> https://doi.org/10.1088/1742-6596/2392/1/012023	2022	
	<i>Learning Management System (LMS) Research During 1991-2021: How Technology Affects Education. International Journal of Emerging Technologies in Learning (Online). Vol.17 (17). Pp. 28</i>	2022	
	<i>Global Research On Tsunami Education And Tsunami Mitigation: A Bibliometric Analysis. Science of Tsunami Hazards, Vol. 4, Issue 2</i>	2022	
	<i>Implementation of Problem Based Learning in VLP Software Assisted Volunte Physics Learning on Students' Problem Solving Ability. Budapest International Research and Critics Institute-Journal (BIRCI-Journal), Vol.5 (1). Pp. 4185-4193</i>	2022	
	<i>The Use of STEM-Integrated Project-based Learning Models to Improve Learning Outcomes of Junior High School Students. Eighth Southeast Asia Design Research (SEA-DR) & the Second Science, Technology, Education, Arts, Culture, and Humanity (STEACH) International Conference (SEADR-STEACH 2021). Atlantis Press page 211-218</i>	2022	
	<i>Science Technology Engineering Arts Mathematics (STEAM) Approach for Learning Science in Junior High School. Studies in Learning and Teaching. Vol. 3(1), pp.55-60</i>	2022	
	<i>Research Trends On Liquefaction In 2011-2021: A Review And Bibliometric Analysis. Science of Tsunami Hazards. Vol. 1 (3)</i>	2022	
	<i>Light Pollution Phenomenon: Prior Knowledge, Attitudes, and Awareness of Physics Undergraduate Students at State University of Surabaya. Jurnal penelitian Pendidikan IPA. Vol 9 (1) pp. 149-153</i>	2022	
	<i>Project-based inquiry-science: An innovative learning for thinking, teaching and assessing science-physics. Momentum: Physics Education Journal. Vol 6 (1), pp. 86-92</i>	2022	
	<i>Designing Vertical Axis Wind Turbine Prototype as Future Renewable Energy Source in STEAM Learning. TEM Journal. Volume 12, Issue 1, pages 452-458</i>	2023	
	Organization Role	Position	Period

Activities in Specialist Bodies Over the Last 5 Years	<i>Education for Sustainable Development</i>	<i>Member</i>	<i>2017 - Now</i>
	<i>Himpunan Fisika Indonesia</i>	<i>Member</i>	<i>2002 - Now</i>
	<i>Ikatan Pendidik IPA Indonesia</i>	<i>Staff</i>	<i>2019 - Now</i>
	<i>Promoting Teacher Education for Climate Change Education through Collaboration between Asian Centres of Excellence on Education of Sustainable Development (ATECCE)</i>	<i>Member</i>	<i>2021-2024</i>