



**UNIVERSITAS PENDIDIKAN INDONESIA**  
 FACULTY OF MATHEMATICS AND NATURAL SCIENCES EDUCATION  
 DEPARTMENT OF PHYSICS EDUCATION  
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**STAFF HANDBOOK**

Name	Prof.Dr. Parlindungan Sinaga M Si				
Position	Physics Education Providing lecturer on Moder Physics, Quantum Physics, Advanced Experiment Physics, Instructional materials innovation and methodology of research				
Academic career	<i>Initial academic appointment</i>	<i>Institution</i>			<i>Year</i>
		<b>Professor, Department of Physics Education of Universitas Pendidikan Indonesia</b>			<b>2019-Now</b>
	<i>Habilitation [German post-doctoral qualification] (Subject)</i>	<i>institution</i>			<i>Year</i>
	<i>Doctorate (Subject)</i>	<i>Institution</i>			<i>Year</i>
		<b>Indonesia University of Education</b>			<b>2011-2014</b>
	<i>Master degree (subject)</i>	<i>Institution</i>			<i>Year</i>
		<b>Bandung Institute of Technology</b>			<b>1989-1991</b>
<i>Undergraduate degree (subject)</i>	<i>Institution</i>			<i>Year</i>	
		<b>Indonesia University of Education</b>			<b>1982-1986</b>
Employment	<i>Position</i>	<i>Employer</i>			<i>Year</i>
	<b>Faculty Quality control unit</b>	<b>Dean</b>			<b>2017-2020</b>
	<b>Lecturer</b>	<b>Dean</b>			<b>1987-Now</b>
Research and development projects over the last 5 years	<i>Name of project or research focus</i>				
	<i>Period and any other information</i>				
	<i>Partners, if applicable</i>				
	<i>Amount of financing</i>				
	<b>No</b>	<b>Year</b>	<b>Title of Research Project</b>	<b>Financing</b>	
				<b>Sources</b>	<b>Amount (Million Rp)</b>
	1	2019 - 2022	The new generation e book untuk mobilre learning berbasis multiple representasi statik dan dinamik	Ministry of Research and Technology of the Republic of Indonesia	170 (2019-2020)
	2	2016 - 2018	Pengembangan model pembelajaran untuk meningkatkan keterampilan generik pedagogik menulis materi ajar fisika yang disisipkan pada mata kuliah bidang studi	Ministry of Research and Technology of the Republic of Indonesia	162
Industry collaborations over the last 5 years	-				
Patents and proprietary rights	<b>No.</b>	<b>Title</b>		<b>Type</b>	<b>Year</b>
	1	Process Model of writing science teaching materials		Proprietary rights	2018



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	2	High school physics workbook oriented critical thinking skills and science process skills on the topic of hydrostatic pressure	Proprietary rights	2018																		
	3	Multiple representation based high school physics workbook to practice problem solving skills and critical thinking skills on the topic of simple harmonic motion	Proprietary rights	2018																		
	4	Adaptive E Learning tutorial model	Proprietary rights	2019																		
	5	IT-Based Integrated Science Learning Training Module HOTS For Science Teachers	Proprietary rights	2019																		
	6	Android-based physics learning application on the topic of static electricity	Proprietary rights	2018																		
	7	Android-based science learning application on the theme of food	Proprietary rights	2019																		
	8	Android-based science learning application on the theme of energy	Proprietary rights	2019																		
	Important publications over the last 5 years	<p><i>Selected recent publications from a total of approx. (give total number): 8 Publication (Scopus Indexed)</i>  <i>Author(s)</i>  <i>Title</i>  <i>Any other information</i>  <i>Publisher, place of publication, date of publication or name of periodical, volume, issue, page numbers</i></p> <table border="1"> <thead> <tr> <th>No</th> <th>Publication</th> <th>Author (s)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Enhancing Critical Thinking Skills and Writing Skills through the Variation in Non-Traditional Writing Task. <i>International Journal of Instruction Vol.10, No.2 e-ISSN: 1308-1470 (2017)</i></td> <td>Parlindungan Sinaga &amp; Shelly Feranie</td> </tr> <tr> <td>2</td> <td>Improving Secondary School Students' Scientific Literacy Ability Through The Design Of Better Science Textbooks. <i>Journal of TURKISH SCIENCE EDUCATION Volume 14, Issue 4, December 2017</i></td> <td>Parlindungan Sinaga, Ida kaniawati &amp; Andhy setiawan</td> </tr> <tr> <td>3</td> <td>Use Of Multimodal Representation In The Physics Learning Material Development To Promote Students' Cognitive And Critical Thinking Competences . <i>IMPACT: International Journal of Research in Applied, Natural and Social Sciences (IMPACT: IJRANSS) Vol. 5, Issue 4, Apr 2017, p.9-18</i></td> <td>Nusifera, parlindungan Sinaga &amp; Agus setiawan</td> </tr> <tr> <td>4</td> <td>Effectiveness of the new generation e-book application for mobile phones in improving the conceptual mastery of kinematics. <i>Int. J. Mobile Learning and Organisation. Vol. 13, No. 2, 2019</i></td> <td>Parlindungan Sinaga, Dwi cahyanti &amp; Amsor</td> </tr> <tr> <td>5</td> <td>The application of project-based learning using mind maps to improve students' environmental attitudes towards waste management in junior high schools</td> <td>Aay, Parlindungan Sinaga &amp; Hernanie</td> </tr> </tbody> </table>				No	Publication	Author (s)	1	Enhancing Critical Thinking Skills and Writing Skills through the Variation in Non-Traditional Writing Task. <i>International Journal of Instruction Vol.10, No.2 e-ISSN: 1308-1470 (2017)</i>	Parlindungan Sinaga & Shelly Feranie	2	Improving Secondary School Students' Scientific Literacy Ability Through The Design Of Better Science Textbooks. <i>Journal of TURKISH SCIENCE EDUCATION Volume 14, Issue 4, December 2017</i>	Parlindungan Sinaga, Ida kaniawati & Andhy setiawan	3	Use Of Multimodal Representation In The Physics Learning Material Development To Promote Students' Cognitive And Critical Thinking Competences . <i>IMPACT: International Journal of Research in Applied, Natural and Social Sciences (IMPACT: IJRANSS) Vol. 5, Issue 4, Apr 2017, p.9-18</i>	Nusifera, parlindungan Sinaga & Agus setiawan	4	Effectiveness of the new generation e-book application for mobile phones in improving the conceptual mastery of kinematics. <i>Int. J. Mobile Learning and Organisation. Vol. 13, No. 2, 2019</i>	Parlindungan Sinaga, Dwi cahyanti & Amsor	5	The application of project-based learning using mind maps to improve students' environmental attitudes towards waste management in junior high schools
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		<i>International Journal of Education Vol. 9 No. 2, Februari 2017, pp. 120-125</i>	
	6	A Reputational Texts through POEAW Tasks to Encourage Eleven Grade Pupils' Conceptual Understanding about Momentum-Impulse. <i>International Journal of Advanced Science and Technology Vol. 29, No. 6, (2020), pp. 3834 - 3846</i>	Achmad Samsudin, Parlindungan Sinaga, Tri Ayu Luthfiani, Adam Hadiana Aminudin, Rasmitadila, Reza Rachmadtullah, Bayram Costu4 and Muhammad Nurtanto5
	7	The effect of science writing heuristic approach with multiple representation in improving students' critical thinking skills. <i>Journal of Physics: Conference Series 1521 (2020) 042107 IOP Publishing doi:10.1088/1742-6596/1521/4/042107</i>	Mulyadi, Parlindungan Sinaga & Taufik Rahman
	8	The Impact of Industrial Revolution 4.0 on Basic Chemistry Learning. <i>AIP Conf. Proc. 2331, 040024-1–040024-6; https://doi.org/10.1063/5.0041706 Published by AIP Publishing. 978-0-7354-4075-3/\$30.00</i>	Indah sari, Parlindungan Sinaga & Hernanie
Activities in specialist bodies over the last 5 years	<b>Organization</b>		<b>Role</b>
	Physical Society of Indonesia		Member
	Indonesian science educator association		Member
	* <i>Membership without a specific role need not be mentioned</i>		