



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

Name	Andi Suhandi				
Position	Material Physics ( <i>Teaching area and designation</i> )				
Academic career	<i>Initial academic appointment</i>	<i>Institution</i>	<i>Year</i>		
	<b>Professor</b>	<b>Universitas Pendidikan Indonesia</b>	<b>2019</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>Physics</b>	<b>Institut Teknologi Bandung</b>	<b>2000-2005</b>		
	<i>Master (Subject)</i>	<i>Institution</i>	<i>Year</i>		
<b>Physics</b>	<b>Institut Teknologi Bandung</b>	<b>1996-1998</b>			
<i>Undergraduate degree (subject)</i>	<i>Institution</i>	<i>Year</i>			
<b>Physics Education</b>	<b>Universitas Pendidikan Indonesia</b>	<b>1988-1993</b>			
Employment	<i>Position</i>	<i>Employer</i>	<i>Year</i>		
	<b>Lecturer</b>	<b>Dean</b>	<b>2003-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>Financing</b>	
	<b>No</b>	<b>Year</b>	<b>Title of Research Project</b>	<b>Sources</b>	<b>Amount (Million Rp)</b>
	1	2019 - 2021	Development of Computer Based Text (CBText) for Teaching Remedial Physics Oriented Construction and Reconstruction of Conceptions and Improving Students' Mental Models	Ministry of Research and Technology of the Republic of Indonesia	275 (2020) 112 (2019)
	2	2020	Development of Real and Virtual-Conceptual Change Laboratory (R-VCCLab) to Change High School Students' Conceptions related to Physics Concepts	Ministry of Research and Technology of the Republic of Indonesia	85
	3	2020	Science Learning Oriented to Scientific Conception Construction and Mental Model Formation of Elementary School Students (Development of Visual Multimedia for Kids for Science Learning Oriented to Scientific Conception Construction)	Pascasarjana UPI	40



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	4	2019	Development of Conceptual Change Laboratory (CCLab) and its Devices for Construction and Reconstruction of High School Students' Conceptions in Physics Subjects	Pascasarjana UPI	40	
	5	2019	Development of Creative, Solution and Smart Teaching (CS2) Based on Computer Simulation in Character Oriented Learning to Improve 21st Century Skills of PGSD and PGPAUD Students	Ministry of Research and Technology of the Republic of Indonesia	135	
	6	2018	Development of Teacher's Books for Implementation Guide for High School Physics Learning Containing Spiritual Attitudes, Providing Scientific Literacy and Practicing Higher-Level Thinking Skills.	Pascasarjana UPI	40	
Industry collaborations over the last 5 years	<i>Project title</i> <i>Partners</i>					
Patents and proprietary rights	No.	Title		Type	Year	
	1	The Text of Concept Change in the POEAW Model of Momentum and Impulse Material		Proprietary rights	2019	
	2	Measuring Critical Thinking Skills Of 11th Grade Students On Temperature And Heat		Proprietary rights	2019	
	3	Design of Science Learning Development (Science Didactical Book): A Practical Guide to Process-Based Science Learning for Kindergarten/PAUD Teachers		Proprietary rights	2018	
	4	Diagnostic Test Conceptual Survey On Impuls And Momentum (Csim)		Proprietary rights	2018	
	5	Eleventh-grade Student's Conceptions About Temperature And Heat		Proprietary rights	2017	
Important publications over the last 5 years	<i>Selected recent publications from a total of approx. (give total number): 120 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>					
	No	Publication			Author (s)	
	1	Reconstructing Students' Misconceptions on Work and Energy through the PDEODE*E Tasks with Think-Pair-Share, Journal of Turkish Science Education, 2021, 18(1), pp. 118–144			Samsudin, A., Afif, N.F., Nugraha, M.G., <b>Suhandi, A.</b> , ...Linuwih, S., Costu, B.	



	2	Fostering high school students' misconception about boiling concept using conceptual change laboratory (cCLab) activity, Universal Journal of Educational Research, 2020, 8(6), pp. 2211–221	<b>Suhandi, A.</b> , Surtiana, Y., Husnah, I., ...Samsudin, A., Costu, B.	
	3	Simulation and optimization of P-N junction gas solar cell efficiency with using SiO <sub>2</sub> antireflection coating coupled with algaas window layer, International Journal of Scientific and Technology Research, 2020, 9(4), pp. 3761–3764	<b>Suhandi, A.</b> , Tayubi, Y.R., Samsudin, A.	
	4	Teaching electrical resistance of a conductor concept using the cd-ccoi model supported by dynamic model and dynamic analogy in improving the mental model, Journal of Engineering Science and Technology, 2020, 15, pp. 39–47	Basori, H., <b>Suhandi, A.</b> , Samsudin, A., Kaniawati, I., Rusdiana, D.	
	5	Facilitating conceptual changes of high school students regarding concepts in static electricity and DC circuits through the use of VMSCDCCText, Universal Journal of Educational Research, 2020, 8(3), pp. 815–822	<b>Suhandi, A.</b> , Samsudin, A., Suhendi, E., ...Syamsiah, E.N., Costu, B.	
	6	Improving prospective primary school teachers' mental models through implementation of CdOI supported by multimode visualization, Universal Journal of Educational Research, 2020, 8(2), pp. 460–467	Hermita, N., Alpusari, M., Noviana, E., ... <b>Suhandi, A.</b> , Samsudin, A.	
	7	Investigating concept progression of prospective primary school teachers in Indonesia, International Journal of Scientific and Technology Research, 2019, 8(12), pp. 1368–1371	Hermita, N., Kurniaman, O., Noviana, E., ...Rochman, C., <b>Suhandi, A.</b>	
	8	Improving primary students critical thinking skills through experiential learning assisted tools of science for kids (EL-TSK) on magnetic force concept, International Journal of Scientific and Technology Research, 2019, 8(10), pp. 3734–3738	Syadiah, E., <b>Suhandi, A.</b> , Ningsih, A.R., Fratiwi, N.J., Samsudin, A.	
	Activities in specialist bodies over the last 5 years	<b>Organization</b>		<b>Role</b>
Physical Society of Indonesia		Member	2015 - Now	
Materials Research Society of Indonesia (MRS-id)		Member	2015 - Now	
* Membership without a specific role need not be mentioned				