



STAFF HANDBOOK

Name	Lilik Hasanah				
Position	Material Physics (<i>Teaching area and designation</i>)				
Academic career	<i>Initial academic appointment</i>	<i>Institution</i>	<i>Year</i>		
	Associate Professor	Universitas Pendidikan Indonesia	2015		
	<i>Habilitation [German post-doctoral qualification] (Subject)</i>	<i>institution</i>	<i>Year</i>		
	<i>Doctorate (Subject)</i>	<i>Institution</i>	<i>Year</i>		
	Physics	Institut Teknologi Bandung	2003-2008		
	<i>Master (Subject)</i>	<i>Institution</i>	<i>Year</i>		
Physics	Institut Teknologi Bandung	1999-2001			
<i>Undergraduate degree (subject)</i>	<i>Institution</i>	<i>Year</i>			
Physics	Institut Teknologi Bandung	1995-1999			
Employment	<i>Position</i>	<i>Employer</i>	<i>Year</i>		
	Lecturer	Dean	2001-Now		
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>				
				Financing	
				Sources	Amount (Million Rp)
1	2021 - 2023	Design and fabrication of micromixer based on PDMS material integrated pH biosensor on Lab-on-Chip	Ministry of Research and Technology of the Republic of Indonesia	175,96 (2021)	
2	2021 - 2023	Design and Development of TiO ₂ -based Electron Transport Layers in Nanohole Photonic Crystal Structures for Perovskite Solar Cell Applications	Ministry of Research and Technology of the Republic of Indonesia	185 (2021)	
3	2018 - 2020	Fabrication of Wireless Optical Sensor Network System for Water Quality Monitoring Applications in Shrimp Farming	Ministry of Research and Technology of the Republic of Indonesia	150 (2020) 105 (2019) 142 (2018)	
4	2019	Strengthening UPI Publications in Q1 International Reputable Journals through the World Class Professor (WCP) Program - Scheme A	Ministry of Research and Technology of the Republic of Indonesia	889	



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	5	2017-2019	Polymer Based Integrated Optical Sensor System Design and Fabrication for Aquaculture Applications	Ministry of Research and Technology of the Republic of Indonesia	2017 (150) 2018(142) 2019(160)
Industry collaborations over the last 5 years	<i>Project title</i> <i>Partners</i>				
Patents and proprietary rights	No.	Title		Type	Year
	1	Sensor Network System Energy Consumption Simulation Program Wireless		Proprietary rights	2020
	2	Wireless Sensor Network (WSN) Lifetime Simulation Program		Proprietary rights	2019
	3	1310nm Wavelength Based Optical Power Meter Program		Proprietary rights	2018
	4	Guide to Using Computer Simulation of Light Waves: Part 1		Proprietary rights	2019
	5	Tunneling Current Characteristics Simulation Program on NPN Armchair Graphene Nanoribbon Dipole Transistor		Proprietary rights	2018
	6	Wireless Sensor Network (WSN) Data Delivery Performance Simulation Program		Proprietary rights	2018
	7	Ammonia Sensor Program		Proprietary rights	2017
	8	Software Program Transmittance on Bipolar Transistor Anisotropic Si/SiGe/Si Hetero junction at Potential		Proprietary rights	2017
Important publications over the last 5 years	<i>Selected recent publications from a total of approx. (give total number): 48 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	Photoluminescence and Raman Scattering of GaAs _{1-x} Bi _x Alloy, Sains Malaysiana, Vol. 49 No. 10, 2020		Lilik Hasanah, Cahya Julian, Budi Mulyanti, Ananda Aransa, Roni Sumantri, M.H. Johari, J.P.R. David & A.R. Mohmad	
	2	Modeling of Tunneling Current of Electron in Bilayer Armchair Graphene Nanoribbons P-N Junction Diode Using Transfer Matrix Method, International Journal of Nanoelectronics and Materials, Vol. 13 No. 1, 2020, p. 81-90		Intan Anjaningsih, M. Fulki Fadhillah, Lilik Hasanah and Endi Suhendi	
	3	A design and performance analysis of telemetry system for remote monitoring turbidity of water during the covid-19 pandemic, Indonesian Journal of		Lilik Hasanah, Wahyu Luqmanul Hakim, Ahmad Aminudin, Siti Kudnie Sahari, Budi Mulyanti	



	Science & Technology, Vol. 5 , No. 2, 2020 , p. 185-192	
4	Enhanced Sensitivity of Microring Resonator-Based Sensors Using the Finite Difference Time Domain Method to Detect Glucose Levels for Diabetes Monitoring, Applied Sciences MDPI, 10, 2020.	Lilik Hasanah , Harbi Setyo Nugroho, Chandra Wulandari, Budi Mulyanti, Dilla Duryha Berhanuddin, Mohamad Hazwan Haron, P. Suthitha Menon, Ahmad Rifqi Md Zain, Ida Hamidah, Khairurrijal Khairurrijal and Rizalman Mamat
5	SIMULATION OF MICRO-RING RESONATOR USING FINITE-DIFFERENCE TIME-DOMAIN TECHNIQUE FOR SENSORS, Journal of Engineering Science and Technology, Vol 15, No 2, 2020	LILIK HASANAH , BUDI MULYANTI, ROER E. PAWINANTO, ASEP B. D. NANDIYANTO, YUSKI M. R. FAOZAN, ARJUNI B. PANTJAWATI, HARBI S. NUGRAHA, AHMAD R. MD. ZAIN, JANULIS P. PURBA
6	Comparison of tunneling currents in graphene nanoribbon tunnel field effect transistors calculated using Dirac-like equation and Schrödinger's equation, Journal of Semiconductors, Vol. 4, No 5, 2019, p.062002-1 – 062002-5	Endi Suhendi , Lilik Hasanah, Dadi Rusdiana, Fatimah A. Noor, Neny Kurniasih, and Khairurrijal
7	Modeling of Armchair Graphene Nanoribbon Tunnel Field Effect Transistors for Low Power Applications, Journal of Semiconductor Technology and Science, Vol.19, No.4, 2019, p. 336-345	Endi Suhendi , Lilik Hasanah, Fatimah A. Noor, Neny Kurniasih, and Khairurrijal
8	Effect of Crystal Orientation on Tunneling Currents in an Anisotropic Si/Si _{0.5} Ge _{0.5} /Si Heterostructure with a Nanometer-thick Barrier, Materials Today: Proceedings, Vol. 5 No. 1, 2018, p. 13711–13717	Lilik Hasanah , Asep Bayu Dani Nandiyantob, Budi Mulyanti, Ida Hamidah, Endi Suhendi, Yuyu Rachmat Tayubi, Ahmad Aminudin, and Khairurrijal
9	Multi-Hop Wireless Sensor Network Performance and Energy Simulation, Pertanika Journals SCIENCE & TECHNOLOGY, Vol. 26 No. 1, 2018, p. 427-440	Lilik Hasanah, Heru Yuwono, Ahmad Aminudin, Endi Suhendi , Yuyu Rachmat Tayubi and Khairurrijal
Activities in specialist bodies over the last 5 years	Organization	
	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		