

STAFF HANDBOOKS



(SCOPUS) (SINTA)

Name	<i>Dr. Esmar Budi, MT</i>
Position	<i>Lecturer in Physics Education, Universitas Country Jakarta</i>
Educational Backgrounds	<ol style="list-style-type: none"> 1. <i>Bachelor's degree in Physics, University Padjadjaran Bandung</i> 2. <i>Master's degrees in Material Science and Engineering, Institute Technology Bandung.</i> 3. <i>Doctoral degrees in Manufacturing Engineering, University Technical Malaysia Melaka.</i>
Academic Career (Employment)	<ol style="list-style-type: none"> 1. <i>Lecturer in Physics and Physics Education Program of FMIPA UNJ (1999-now)</i> 2. <i>Secretary of Physics Department of FMIPA UNJ (2003-2005)</i> 3. <i>Head of Physics Program of FMIPA UNJ (2011-2015)</i> 4. <i>Head of Physics Education of Program of FMIPA UNJ (2015-2019)</i> 5. <i>Head of Physics Education Program of FMIPA UNJ (2019-2021)</i> 6. <i>Vice Dean of Academic Affair of FMIPA UNJ (2021-now)</i>
Research and Development project over the last 5 years	<ol style="list-style-type: none"> 1. <i>Microstructure of Nickel-/Nitride Electrodeposition Composite Layer, PTF, BLU FMIPA UNJ 2022.</i> 2. <i>Crystal Structure and mechanical properties of the coating composite electrodeposition nickel-/nitride, PTF, BLU FMIPA UNJ 2021.</i> 3. <i>Layer composite electrodeposition nickel-/nitride as material smart and functional coatings that protect against wear and corrosion, PTUPT, Dikti, 2019-2021.</i> 4. <i>Tribology of nickel-/nitride composite electrodeposition layers in the process cutting Tool steel, PTF, BLU FMIPA UNJ 2020.</i> 5. <i>Study influence temperature electrodeposition on formation layer composite clever nickel-/nitride, PTUPT, Higher Education 2019.</i> 6. <i>Fabrication layer thin super hard composite Ni-TiAlN/Si3N4 use rule electrodeposition as replacement material hard diamond, PTUPT, Higher Education 2017-2018.</i>

Industry collaboration/ Community Services over the last 5 years	<ol style="list-style-type: none"> 1. <i>Learning Physics Based Laboratory in Unit Education Region Jakarta East, PKM-KDUPIP, BLU FMIPA UNJ 2022.</i> 2. <i>Analysis Oscillation Harmonious through Test And Simulation For Learning Physics Distance Far, PKM-KDUPIP, BLU FMIPA UNJ 2021.</i> 3. <i>Study Characteristic Elasticity Material Through Test Laboratory Law Hooke, PKM-Community Partnership, 2020.</i> 4. <i>Study induction electromagnetic through test laboratory For learning physics, PKM-Community Partnership, 2019.</i> 5. <i>Mechanics Study, Electricity and Magnetism Through Laboratory Experiments for Learning Physics, PKM Community Partnership, BLU FMIPA UNJ 2018.</i>
Patents and Intellectual Property Right (IPR)	<ol style="list-style-type: none"> 1. <i>Videos testing Drill Tungsten Carbide On Drilling Steel Tools, IPR 2022 (EC00202240047)</i> 2. <i>Video Learning Analysis of Harmonic Oscillations Through Experiments and Simulation For Learning Physics Distance Far, IPR 2022 (EC00202242512).</i> 3. <i>Learning Video Study of Simple Harmonic Oscillatory Motion Through Test Laboratory Physics, IPR 2022 (EC00202240048).</i> 4. <i>Calculation influence variation voltage substrate to fraction layer composition and spark deposition rate of TiAlN magnetron on change gas flow rate nitrogen, IPR 2020 (EC00202016859).</i> 5. <i>Book: Physics Modern Theory And The application, IPR 2019 (EC00201932488).</i> 6. <i>Book: Electrodeposition Layer Composite Nickel-/Nitride, IPR 2019 (EC00201951004)</i> 7. <i>Book: Wave, IPR 2018 (EC00201824949).</i> 8. <i>System Potentiostat based ATmega328p in System Minimum Arduino Uno For process electrodeposition layer thin composite nickel-/nitride. IPR 2017 (EC00201704746).</i>
Important publications over the last 5 years	<ol style="list-style-type: none"> 1. <i>Mechanical and Tribology Properties of Electrodeposited Ni-TiN/Si₃N₄ Composite Coatings. Materials Science Forum 1057 (2022) 218-226.</i> 2. <i>Preliminary Study on High-Temperature Oxidation of Ni-AlN-TiN/Si₃N₄ Electrodeposition Composite Coatings. Journal of Physics: Conference Series 2019 (1) (2021) 012067.</i> 3. <i>Effect of elevated temperature on Ni-TiN-AlN/Si₃N₄ composite coatings in electrodeposition process. AIP Conference Proceedings 2331 (1), 030033.</i> 4. <i>Effect of elevated temperature on composition and morphology of Ni-TiN/Si₃N₄ composite coatings. AIP Conference Proceedings 2320 (1), 030005.</i> 5. <i>High temperature oxidation resistance of nickel-/nitride composite coatings: A briefs reviews. AIP Conference Proceedings 2320 (1) (2021) 030007.</i>

	<ol style="list-style-type: none"> 6. <i>Electrodeposition of Ni-Nitride composite coatings: A recent review study IOP Conference Series: Materials Science and Engineering 1098 (6) (2021) 062053.</i> 7. <i>Electrodepositing Ni-TiN/Si₃N₄ Composite Layers with Variations of Current Density Key Engineering Materials 860 (2020) 320-326.</i> 8. <i>Effect of Temperature on Electrodeposited Nickel Nitride Composite Coatings. Journal of Physics: Conference Series 1428 (2020) 012015.</i>
Activities in Professional organizational over the last 5 years	<ol style="list-style-type: none"> 1. <i>Members of Association MIPA LPTK Indonesia, 2014-now.</i> 2. <i>Members of Semirata BKS-PTN West, 2003-now.</i> 3. <i>Members of MIPA-net, 2014-now.</i>