

STAFF HANDBOOKS



[\(SCOPUS\)](#) [\(SINTA\)](#)

Name	Prof. Dr. I Made Astra, MS
Position	Lecturer in Physics Education
Educational Backgrounds	<ol style="list-style-type: none"> 1. Bachelor's degrees (Physics Education), IKIP Jakarta. 2. Master's degrees (Physics), UGM Yogyakarta. 3. Doctoral degree (Environmental education), IKIP Jakarta.
Academic Career (Employment)	Lecturer, Masters of Physics Study Program, Faculty Mathematics and Natural Sciences, Jakarta State University, Jakarta 13220, Indonesia.
Research and Development project over the last 5 years	<ol style="list-style-type: none"> 1. 2019 - Development Electronic Module With Discovery Learning Models To Improve High Order Thinking Skills (Hots) Senior High School Students.
Industry collaboration/ Community Services over the last 5 years	<ol style="list-style-type: none"> 1. 2021 - Ppm Training In The Making Of Smart Orbitals Gangsing Media (Gso) With Kahoot Assistance For Physics Teacher At Senior high school N 1 Pebayuran District. Bekasi. 2. 2021 - Ppm Improvement Of The Quality Of Learning SMAS Kartika VIII-1 In Ex. Srengseng rice fields sub-district. Jagakarsa city of south jakarta through the implementation of wopi (website of physics instructional).

	<ol style="list-style-type: none"> 3. 2021 - Science Literacy Development Training At Public High School 3Ciledug, Tangerang, Banten. 4. 2020 - Physics Problem Development Training For Divergenic Thinking Abilities.
Patents and Intellectual Property Right (IPR)	<ol style="list-style-type: none"> 1. 2021 - Metacognitive Knowledge (Valid Theory and Examples Problems). 2. 2021 - Learning Motivation (Theory and Examples of Valid Instruments). 3. 2021 - Simple Electrical Circuits. 4. 2020 - High School Physics Theory and Problems Divergent Thinking and High School Physics HOTS Theory and Problems. 5. 2020 - Divergent Thinking High School Physics Theory and Problems. 6. 2020 - Android Application Of Ibn Haitham Biography Comics. 7. 2020 - Basic Physics Practicum Worksheets 1 Science-Based Writing Heuristics (SWH). 8. 2018 - Sir Isaac Newton Biography Comic Books.
Important publications over the last 5 years	<ol style="list-style-type: none"> 1. 2022 - The Relationships Between Personality And Environmentally Responsible Behavior In Green High School 2. 2022 - The Development E-Learning Assisted By Flashcard To Improve Students Scientific Literacy In High School On The Kinetic Theory Of Gases Materials 3. 2022 - Analysis Of Distance Learning Physics During The Covid-19 Pandemic 4. 2022 - The Effectiveness Of Using Quizizz In Fundamentals Physics Learning In The Era Of The Covid-19 Pandemic 5. 2021 - Phet-Assisted Electronics Students Worksheets OfPhysics (Eswop) On Heat For Inquiry Learning During Covid 6. 2021 - Identifying High School Students' Misconceptions Using Digital Four-Tier Diagnostics Tests In Distance Learning 7. 2021 - The Development Of Digital Comics US Learning Media Based On Picture-And-Picture Learning Model On Global Warming Materials During Distance Learning 8. 2021 - Projects Based Learning (Pjbl) Learning Model InScience Learning: Literature Reviews 9. 2021 - Review of Trends Project Based Learning (Pjbl) Integrated STEM In Physics Learning 10. 2021 - Design Of Virtual Physics Laboratory (VPL) On Collision Topics 11. 2021 - Trends Of Flipped Classroom Studies For Physics Learning: A Systematic Review 12. 2021 - A Reviews Of Research On The Use Of Augmented Reality In Physics Learning 13. 2021 - Enhancing Students' Learning Activities Using Problem Based Learning Model On Temperature And Heat Concept

	<p>14. 2021 - Flipped Learning Models And Students' Scientific Literacy On Physics Achievement Test</p> <p>15. 2021 - Projects Based Blended Learning And Independent Learning On Critical Thinking Skills</p> <p>16. 2021 - Development Of Virtual Reality-Based Learning Media On Electromagnetic Wave Radiation Materials</p> <p>17. 2021 - Implementation Of Think Pair Share Model In Physics Learning To Determine Cognitive, Affective And Psychomotor Learning Outcomes And Student Responses</p> <p>18. 2021 - Massive Open On line Simulation (MOOS) Of Physics Concepts Microscopic For Improving Creative Thinking</p> <p>19. 2021 - Development Of Learning Material In The Form Of A Smartphones Application On The Subject Of Temperature And Heat By Inquiry-Based Learning (IBL) For Physics High School Subject</p> <p>20. 2021 - Dynamic Systems Of Relativistic Particles Under One Dimensional Harmonic Oscillator Potential</p> <p>21. 2021 - The Use Of Google Classroom US ICT Literacy To Improve Physics Students Collaboration Skills In Industrial Revolution 4.0</p> <p>22. 2021 - The Effect Of Inquiry Learning Model And Logical Mathematical Intelligence On The Learning Outcomes Of High School Students</p> <p>23. 2021 - Hots And The 21st Century Learning Skills: Formed With Practicum-Based Physics Learning Worksheets</p> <p>24. 2021 - Essays Questions On Dynamic Fluid Physics Material To Measure Intellection Thinking Ability Of Grade XI High School Students</p> <p>25. 2021 - The Analysis Of Cognitive Abilities And Critical Thinking Skills With Contextual Approaches On Heat Transfer Concepts For Junior High School Students</p> <p>26. 2021 - Worksheets, Discovery Learning, And 3d Media Based On Qr-Code: The Ability To Analyze Is Formed In Physics Practicum</p> <p>27. 2021 - Comparisons Of Problem Based Learning Strategies Assisted By Animated Videos And Non-Assisted By Animated Video Against Metacognitive Abilities Of High School Students</p> <p>28. 2021 - Development Of Basic Physics I Practicum Worksheet With Science Writing Heuristic (Swh) Approach To Improve Science Process Skills</p> <p>29. 2021 - The Effects Of Active Learning Model Team Quiz Type Assisted By Animation Video On Critical Thinking Abilities Of High School Students</p> <p>30. 2021 - Imposed Conditions To Make Gauges Invariance In Gross-Pitaevskii Equation With Time-Dependent Potential</p> <p>31. 2021 - The Influence Of Inquiry Learning Model Using Phet And Learning Motivation On Metacognition Of Class XI High School Students</p>
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	<p>32. 2021 - Projects Based Learning: Model Electric Power Plants Mas Wawi (Biomass, Sun, Water, And Wind) To Improve Students Energy Literacy</p> <p>33. 2021 - EFFECT OF NATURAL DISASTER-BASED VIDEOS MEDIA TO INCREASE STUDENT'S ENVIRONMENTAL SENSITIVITY</p> <p>34. 2020 - The Implementation Of Collaborative Learning Models Using Worksheets To Increase Student Learning Outcomes At Senior High School The Subject Of Light Waves</p> <p>35. 2020 - The Development Of Guided Inquiry Students Worksheet Using Tracker Video Analysis For Kinematics Motion Topics</p> <p>36. 2020 - The Effects Of Cooperative Learning Model Think Pair Share Assisted By Animation Media On Learning Outcomes Of Physics In High School</p> <p>37. 2020 - The Effects Of Active Learning Model Guided Note Taking On Student's Critical Thinking Abilities In High School</p> <p>38. 2020 - The Differences In Physics Learning Outcomes Based on Gender After Using Blended Problem-Based Learning Model</p> <p>39. 2020 - Specialized Social Media Platforms For Integrated Thematic Science Based Learning</p> <p>40. 2019 - Therein US Teaching Aid To Improve Students Understanding Of Waves</p> <p>41. 2019 - Development Of Sound Waves And Light Waves E-Books Physics Based On Scientific Approach To Improve Science Process Skills For Secondary School Students</p> <p>42. 2019 - Renewable Energy Props Development</p> <p>43. 2019 - Effects Of Projects Based Learning Model Assisted By Students Worksheets On Critical Thinking Abilities Of High School Students</p> <p>44. 2019 - Improvements Of Students' Critical Thinking Ability Through Problem-Based Learning (PBL) Class XI Model MIPA 3 On Temperature And Heat Material</p> <p>45. 2019 - The Effect Of Flipped Classroom Model On Student's Physics Learning Outcomes In Work And Energy Concept</p> <p>46. 2019 - Development Of E-Handouts Materials Physics Based on Android For Improvement Learning Outcomes Senior High School Students</p> <p>47. 2019 - Developing Optical Instruments Encyclopedia Based on Problem Based Learning</p> <p>48. 2019 - The Development Of Newton's Law Encyclopedia Based On Advance Organizer</p> <p>49. 2019 - Development Of Work And Energy Encyclopedia Based On Science Technology Society</p> <p>50. 2019 - Developing Of Modified Inquiry-Based Laboratory Worksheet On Optical Topic</p> <p>51. 2019 - The Development Of The Physics Practicum Worksheets In Electricity Based On Modified Inquiry Approach</p>
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	<p>52. 2019 - Developing E-Module For Fluids Based On Problem Based Learning (PBL) For Senior High School Students</p> <p>53. 2019 - Augmented Reality Water Rocket: Develop An Enrichment Book Of Physics</p> <p>54. 2019 - Development Of Work And Energy Encyclopedia Based On Science Technology Society [Desarrollo De Enciclopedia De Trabajo Y Energia Basada En La Ciencia, La Sociedad Tecnologica]</p> <p>55. 2019 - Validation Of Environmental Personality (Conscientiousness, agreeableness, Neuroticism, Openness, extraversion) And Its Effect On Students' Pro-Eco Behaviour Mediated By Intention To Act</p> <p>56. 2018 - Characters Building In Physics Learning For Indonesia Children</p> <p>57. 2018 - The Development Of A Physics Knowledge Enrichment Book "Optical Instrument Equipped With Augmented Reality" To Improve Students' Learning Outcomes</p> <p>58. 2018 - Relationships Between Time Management And Students' Learning Outcomes At Grades XI - Science On FluidStatics Subject</p>
<p>Activities in Professional organizational over the last 5 years</p>	