



## CURRICULUM VITAE

**Dr. Yulkifli, S.Pd., M.Si.**

**Faculty:** Fakultas Matematikan dan IPA

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### Biography

#### Scopus of the Last 5 Years

A Low-cost Digital Spectrophotometer for Heavy Metal Absorbance Measurements. Instruments and Experimental Techniques, Yulkifli, 2023

Automatic Transfer Switch Solar Cell Inverter System Based on Android Application. Journal of Physics: Conference Series, Audia W., 2022

Direct-current electric field effect on the viability of HeLa cell line. Electromagnetic Biology and Medicine, Muttaqin A., 2021

Molecularly Imprinted Polymer (MIPs) Nanomaterials Modified as Absorbing Cholesterol. Journal of Physics: Conference Series, Sabrina N., 2021

Is Integrated Science Book with Ethno-STEM Approach Needed by Secondary School Students?. Journal of Physics: Conference Series, Muttaqiin A., 2021

Validity of interactive student worksheets based on inquiry based learning models to improve knowledge competence. Journal of Physics: Conference Series, Samudra E.Y.A., 2021

Validity of student worksheet inquiry based learning model with multi-representation approach integrated scientific literacy for grade XI physics learning on 21<sup>st</sup> century. Journal of Physics: Conference Series, Septiani T., 2021

Development of inquiry based learning model - Based student worksheets through the 21<sup>st</sup> century science process skills approach to grade XI physics learning. Journal of Physics: Conference Series, Widestra R.A., 2021

Development of electronic module using inquiry based learning (IBL) model integrated high order thinking skill (HOTS) in 21<sup>st</sup> century physics learning class X. Journal of Physics: Conference Series, Nisak F., 2021

Preliminary study of development of physics e-module using smartphone-assisted inquiry based learning models to support 21<sup>st</sup> century learning. Journal of Physics: Conference Series, Risma M., 2021

Preliminary research in the development of smartphone-based e-module learning materials using the ethno-STEM approach in 21st century education. Journal of Physics: Conference Series, Azis H., 2021

Potential Landslide Detection in Kelok Sembilan Flyover Using SAR Interferometry. International Journal on Advanced Science, Engineering and Information Technology, Razi P., 2021

Molecularly imprinted polymeric microspheres for electrochemical sensing of cholesterol. Rasayan Journal of Chemistry, Julita E., 2021

Measuring the physics students' data literacy skill in the era of industry 4.0 by using mirecal learning model. International Journal of Scientific and Technology Research, Lusiyana A., 2020

Validity of student worksheets based on inquiry based learning models assisted by tracker application. Journal of Physics: Conference Series, Fadilah R., 2020

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The electrical properties of NiFe<sub>2</sub>O<sub>4</sub>-PVDF nanocomposite prepared by sol-gel method. Journal of Physics: Conference Series, Fadli A.H., 2020

---

Land deformation modelling of Taiwan earthquake using interferometry technique. Journal of Physics: Conference Series, Razi P., 2020

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Preliminary analysis to develop student worksheet based on inquiry based learning model for 21<sup>st</sup> century physics learning. Journal of Physics: Conference Series, Havid M., 2020

---

Preliminary analysis of development electronic module using inquiry based learning model for 21<sup>st</sup> century. Journal of Physics: Conference Series, Nisak F., 2020

---

Preliminary analysis of interactive student worksheets development using the science process skill approaching the 21<sup>st</sup> century physics learning. Journal of Physics: Conference Series, Widestra R.A., 2020

---

Preliminary analysis development of interactive student worksheets using inquiry based learning model for 10<sup>th</sup> grade senior high school. Journal of Physics: Conference Series, Samudra E.Y.A., 2020

---

A simple colorimeter based on microcontrollers to detect food dyes. Journal of Physics: Conference Series, Yulkifli, 2020

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Validity of student worksheet oriented on POE model assisted digital practicum tool. Journal of Physics: Conference Series, Darwata S., 2019

---

Validity of student worksheet based on problem based learning model assisted by practical tools with digital display. Journal of Physics: Conference Series, Melati P., 2019

---

Development of color detector using colorimetry system with photodiode sensor for food dye determination application. Journal of Physics: Conference Series, Yulkifli, 2019

---

Validity of student worksheet based on guided inquiry learning model assisted by digital practicum tool. Journal of Physics: Conference Series, Aldilha Yudha S., 2019

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Microstructure of magnetite - Polyvinylidene fluoride (Fe<sub>3</sub>O<sub>4</sub>/PVDF) nanocomposite prepared by spin coating method. Journal of Physics: Conference Series, Yulfriska N., 2019

---

The problems of integrating multiple representation skills in physics learning. Journal of Physics: Conference Series, Lusiyana A., 2019

---

Development of physics module SMA/MA integrated character values based on discovery learning models with approach science process skills. Journal of Physics: Conference Series, Ramadoni A., 2019

---

Validity of flood themed science textbook for junior high school with sequenced model using problem-based learning. Journal of Physics: Conference Series, Yumna H., 2019

---

Preliminary study of the use of games interactive multimedia module to increase critical thinking of students in senior high school. Journal of Physics: Conference Series, Zulazhari, 2019

---

Validity of development of student's worksheet based on problem-based learning model on parabolic motion materials assisted by digital display practicum. Journal of Physics: Conference Series, Fitri U., 2019

---

Development of a valid student work sheet oriented on approach somatic, auditory, visual and intellectual (SAVI) assisted digital practicum tools. Journal of Physics: Conference Series, Trio N., 2019

---

Fabrication of superhydrophobic CuO/polystyrene nanocomposite coating with variation concentration. Journal of Physics: Conference Series, Sarimai, 2019

Preliminary study in the student worksheet development using inquiry based learning model with science process skills approach for physics learning of second grade high school. Journal of Physics: Conference Series, Ningrum M.V., 2019

Analysis of students in the development students worksheet using inquiry based learning model with constructivism approach for physics learning high school class XII/I. Journal of Physics: Conference Series, Hifarianti V., 2019

Development of interactive teaching materials with scientific approach contains character values in learning matter about sounds wave, light wave, and optical devices in senior high school class XI. Journal of Physics: Conference Series, Murtiani, 2019

A silver nanoparticle-based colorimetric detection of  $\text{Fe}^{2+}$ . Journal of Physics: Conference Series, Handayani W., 2019

The analysis of students worksheet development using inquiry based learning models with science technology society approach for physics learning of senior high school class XI. Journal of Physics: Conference Series, Nasution V.Y., 2019

Preliminary analysis of students worksheet development using inquiry based learning models with scientific approach for physics learning of senior high school class X. Journal of Physics: Conference Series, Resnita L., 2019

Analysis of electronic module development using model inquiry based learning with approach contextual teaching and learning in physics material of senior high school class X. Journal of Physics: Conference Series, Ihsan I., 2019

Student worksheet development using inquiry based learning model with contextual approach for physics learning based on the initial analysis of student. Journal of Physics: Conference Series, Faradillah, 2019

#### Web of Science (WoS) of the Last 5 Years

#### Google Scholar of the Last 5 Years

A Low-cost Digital Spectrophotometer for Heavy Metal Absorbance Measurements. Instruments and Experimental Techniques 66 (No.1), pp.147-155, 2023, Yulkifli, Kelvin Septa Dewantara, Mona Berlian Sari, Ramli, Pakhrur Razi ..., 2023

Development of physics e-module based on integrated projectbased learning model with Ethno-STEM approach on smartphones for senior high school students. Momentum: Physics Education Journal 6 (1), 93-103, 2022, Yulkifli, Yohandri, Hasbi Azis, 2022

Enhanced Electrochemical Sensor for Electrocatalytic Glucose Analysis in Orange Juices and Milk by the Integration of the Electron-Withdrawing Substituents on Graphene/Glassy $\text{A}$  .... Journal of Analytical Methods in Chemistry 2022, 2022, R Zainul, IM Isa, AM Yazid, S Nur, N Hashim, SN Mohd Sharif, MI Saidin, ..., 2022

Automatic Transfer Switch Solar Cell Inverter System Based on Android Application. Journal of Physics: Conference Series 2309 (ICRLP2021), 1-9, 2022, Washilla Audia, Mairizwan, Rio Anshari, Yulkifli, 2022

The Effect of Blended Learning Model (BLM) on Student Achievements: A Meta-Analysis. Jurnal Penelitian Pendidikan IPA 8 (5), 2451-2459, 2022, A Asrizal, U Khairi, M Murtiani, V Mardian, 2022

Efektivitas E-modul Fisika Menggunakan Model Pembelajaran Berbasis Riset untuk Meningkatkan Kompetensi Perserta Didik SMA di Era Revolusi 4.0. Jurnal Eksakta Pendidikan 6 (1), 20-27, 2022, Mu'tia Faizah Apriani, Yulkifli, 2022

Automatic Transfer Switch System Design on Solar Cell – Grid Hybrid Based on Android Application. Eksakta 23 (4), 266-283, 2022, Washilla Audia, Yulkifli, Mairizwan, Aditya Rinaldi, 2022

Is Integrated Science Book with Ethno-STEM Approach Needed by Secondary School Students?. Journal of Physics: Conference Series 1788 (1), 012048, 2021, A Muttaqin, M Murtiani, Y Yulkifli, 2021

Direct-current electric field effect on the viability of HeLa cell line. Electromagnetic Biology and Medicine 40 (1), 41-48, 2021, A Muttaqin, S Syukur, Y Yulkifli, T Alimuddin, 2021

Soil moisture measurement tools using SHT11 sensors based on the Internet of Things. INVOTEK: Jurnal Inovasi Vokasional dan Teknologi 21 (3), 165-174, 2021, Y Karinia, V Violita, H Tarigan, NY Sudiar, Y Yulkifli, 2021

Development of electronic module using inquiry based learning (IBL) model integrated high order thinking skill (HOTS) in 21st century physics learning class X. Journal of Physics: Conference Series 1876 (1), 012085, 2021, F Nisak, Y Yulkifli, 2021

Validity of Student Worksheets using Inquiry Based Learning Models with Science Technology Society Approach for Physics Learning. International Journal of Progressive Sciences and Technologies 25 (1), 63-68, 2021, VY Nasution, RA Widestra, Y Yulkifli, 2021

Validity of Student Worksheet Inquiry Based Learning Model with Scientific Approach Integrated Creative Thinking Skills for Grade XI Physics Learning on 21st Century. International Journal of Progressive Sciences and Technologies (IJPSAT) 27Â ..., 2021, MH Yulkifli, 2021

Synthesis and Characterization of HPMpFBP Using Raman Spectroscopy, Nuclear Magnetic Resonance (NMR) Spectroscopy, and FTIR. Jurnal Ilmu Fisika (JIF) 13 (No.2), 109-117, 2021, IMI Wilda Tri Putri Yusri, Yulkifli Yulkifli, Alizar Alizar, 2021

Studi Literatur Sensor Glukosa Untuk Darah Manusia Menggunakan Sensor Elektrokimia Berbasis Glassy Carbon Electrode (GCE) dengan Metode Voltametri. Jurnal Fisika Unand (JFU) 10 (No.3), 324-329, 2021, IMI Widya Janatul Putri, Yulkifli, Alizar, 2021

THE DESIGN OF DISPLAY DIGITAL DATA INTERFACE CLAMP-METER COMPLEMENTED BY SENSOR GMR (GIANT MAGNETORESISTANCE). Spektra: Jurnal Fisika dan Aplikasinya 5 (1), 53-60, 2020, Y Yulkifli, F Afriani, Y Yohandri, R Ramli, 2020

PENGARUH KOMPOSISI CoFe<sub>2</sub>O<sub>4</sub> TERHADAP SIFAT MAGNETIK NANOKOMPOSIT CoFe<sub>2</sub>O<sub>4</sub>/PVDF YANG DISINTESIS DENGAN METODE SOL GEL. PILLAR OF PHYSICS 13 (1), 2020, S Yulianti, R Ramli, 2020

Metaanalisis Pengaruh Model Pembelajaran Inkuiiri Terhadap Keterampilan Proses Sains dan Literasi Saintifik. Sainstek: Jurnal Sains dan Teknologi 12 (2), 91-100, 2020, F Mardianti, Y Yulkifli, A Asrizal, 2020

Detektor Dosis Radiasi Gamma Menggunakan Prinsip Localized Surface Plasmon Resonance (LSPR) Nanopartikel Perak. Sainstek: Jurnal Sains dan Teknologi 12 (2), 44-50, 2020, T Surya, Y Yulkifli, C Imawan, N Pratiwi, D Rahmawati, 2020

DEVELOPMENT OF INTERACTIVE MULTIMEDIA MODULES IN PROBLEM-BASED LEARNING MODELS TO ENHANCE CRITICAL THINKING ABILITIES OF HIGH SCHOOL STUDENTS. Jurnal Pendidikan Fisika 9 (1), 1-11, 2020, S Amalia, D Djamas, Y Yulkifli, 2020

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Developing Student Worksheets Using Inquiry-based Learning Model with Scientific Approach to Improve Tenth Grade Students Physics Competence. Jurnal Penelitian Fisika dan Aplikasinya (JPFA) 10 (1), 56-70, 2020, Y Yulkifli, R Jaafar, L Resnita, 2020

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Preliminary analysis development of interactive student worksheets using inquiry based learning model for 10th grade senior high school. Journal of Physics: Conference Series 1481 (1), 012073, 2020, EYA Samudra, Y Yulkifli, RA Widestra, 2020

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Preliminary analysis of development electronic module using inquiry based learning model for 21st century. Journal of Physics: Conference Series 1481 (1), 012070, 2020, F Nisak, Y Yulkifli, 2020

---

Preliminary analysis of interactive student worksheets development using the science process skill approaching the 21st century physics learning. Journal of Physics: Conference Series 1481 (1), 012072, 2020, RA Widestra, Y Yulkifli, EYA Samudra, 2020

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Measuring the physics students' data literacy skill in the era of industry 4.0 by using mirecal learning model.

International Journal of Scientific and Technology Research 9 (1), 1203-1205, 2020, A Lusiyana, Festiyed, Yulkifli, 2020

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Development Of Electronic Physics Module For Class XI High School Semester 2 Using Model Inquiry Based Learning Integrated Approach Contextual Teaching And Learning. IOSR Journal of Research & Method in Education (IOSR-JRME) 10 (issue 2A ..., 2020, Yulkifli , Elmi Yanto, A.S , Rahmi Agustia, W ., Ifzi Ihsan, Yohandri, 2020

---

Rancang Bangun Sistem Pengukuran Tekanan Udara Menggunakan DT-Sense Barometric Pressure Berbasis Internet of Things dengan Tampilan pada Smartphone. Jurnal Teori dan Aplikasi Fisika 8 (No. 1), 1-10, 2020, Indah Tri Handini, Yulkifi, Yenni Darvina, 2020

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Microstructure of magnetite-polyvinylidene fluoride (Fe<sub>3</sub>O<sub>4</sub>/PVDF) nanocomposite prepared by spin coating method. Journal of physics: conference series 1185 (1), 012025, 2019, N Yulfriska, Y Darvina, Y Yulkifli, R Ramli, 2019

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Development of color detector using colorimetry system with photodiode sensor for food dye determination application. Journal of Physics: Conference Series 1185 (1), 012031, 2019, P Kahar, R Ramli, SB Etika, C Imawan, 2019

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SENSOR MAGNETIK FLUXGATE, KARAKTERISTIK DAN APLIKASINYA. Jurnal Sains Materi Indonesia, 207-214, 2019, M Djamat, S Suyatno, Y Yulkifli, RN Setiadi, 2019

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Pengembangan bahan ajar interaktif dengan pendekatan saintifik bermuatan nilai-nilai karakter pada materi hukum newton tentang gerak dan hukum newton tentang gravitasi di kelasA .... Pillar of Physics Education 12 (1), M Risma, M Murtiani, Y Darvina, Y Yulkifli, 2019

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Studi Awal Rancangan Alat Colorimeter Menggunakan Sensor OPT101 Untuk Menentukan Serapan Ekstrak Pewarna Alami Berbasis Mikrokontroler Arduino. Pillar of Physics 12 (1), 1-8, 2019, K Puja, Y Yulkifli, R Ramli, 2019

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Pembuatan set eksperimen gerak vertikal bawah berbasis Sensor Ping dan Sensor Photogate dengan tampilan PC. PILLAR OF PHYSICS 12 (1), M Idayu, Y Yulkifli, Z Kamus, 2019

---

Pembuatan Set Eksperimen Gerak Harmonis Sederhana Pada Bandul Berbasis Sensor Ping Dan Sensor Photogate Dengan Tampilan PC. *PILLAR OF PHYSICS* 12 (1), 2019, L Handayani, Y Yulkifli, Yohandri, 2019

---

Analisis kesesuaian materi IPA dengan tujuan kurikulum pada buku teks pelajaran IPA SMP/MTS kelas VIII semester 1 untuk diintegrasikan dengan materi banjir. *Pillar of Physics Education* 12 (2), 2019, MP Ardiansyah, A Fauzi, Y Yulkifli, 2019

---

Efek penggunaan LKS IPA tema pemanfaatan tekanan mengintegrasikan literasi saintifik pada kompetensi siswa kelas VIII SMPN 31 Padang. *PILLAR OF PHYSICS EDUCATION* 12 (3), 2019, Kitty Mulyati Chania, Asrizal, Yulkifli, Renol Afrizon, 2019

---

The validity of student worksheet using inquiry-based learning model with science process skill approach for physics learning of high school. *Jurnal Penelitian & Pengembangan Pendidikan Fisika* 5 (2), 155-162, 2019, Y Yulkifli, MV Ningrum, W Indrasari, 2019

---

PERANCANGAN APLIKASI GO LAND (WEST SUMATERA ISLAND TOUR) BERBASIS ANDROID. *Sainstek: Jurnal Sains dan Teknologi* 11 (1), 28-36, 2019, I Iswandi, L Rahmi, T Septiana, K Shobirin, H Fajri, 2019

---

Pengaruh komposisi terhadap ukuran butir lapisan nanokomposit CoFe<sub>2</sub>O<sub>4</sub>/PVDF dengan metode spin coating. *PILLAR OF PHYSICS* 12 (2), D Putri, Y Darvina, R Ramli, Y Yulkifli, 2019

---

Analisis Studi Pendahuluan Lembar Kerja Siswa Berbasis Model Inquiry Based Learning Pada Pembelajaran Fisika Abad 21. *Jurnal Penelitian Pembelajaran Fisika* 5 (2), 2019, Elmi Yanto Adhar Samudra, Yulkifli, 2019

---

Peningkatan kompetensi keterampilan peserta didik berbantuan LKPD berbasis model discovery learning pada materi fluida. *Indonesian Journal of Science and Mathematics Education* 2 (1), 130-139, 2019, N Pratiwi, Y Yulkifli, 2019

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Pengaruh komposisi terhadap ukuran butir lapisan nanokomposit CoFe<sub>2</sub>O<sub>4</sub>/PVDF dengan metode spin coating (The influence of composition to the grain size of the CoFe<sub>2</sub>O<sub>4</sub>/PVDF.... *PILLAR OF PHYSICS* 12 (2), D Putri, Y Darvina, 2019

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Studi awal rancangan alat colorimeter menggunakan sensor OPT101 untuk menentukan serapan ekstrak pewarna alami berbasis mikrokontroler arduino (Preliminary study of the.... *Pillar of Physics* 12 (1), P Kahar, 2019

---

Pembuatan set eksperimen gerak vertikal bawah berbasis Sensor Ping dan Sensor Photogate dengan tampilan PC (Fabrication of a set of bottom vertical motion experiments based on.... *PILLAR OF PHYSICS* 12 (1), M Idayu, Z Kamus, 2019

---

Pembuatan set eksperimen gerak harmonis sederhana pada bandul berbasis Sensor Ping dan Sensor Photogate dengan tampilan PC (Fabrication of a simple set of harmonic motion.... *PILLAR OF PHYSICS* 12 (1), L Handayani, 2019

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Pengembangan bahan ajar interaktif dengan pendekatan saintifik bermuatan nilai-nilai karakter pada materi hukum newton tentang gerak dan hukum newton tentang gravitasi di kelas.... *Pillar of Physics Education* 12 (1), 2019, M Risma, M Murtiani, Y Darvina, Y Yulkifli, 2019

---

Pengaruh komposisi terhadap ukuran butir lapisan nanokomposit CoFe<sub>2</sub>O<sub>4</sub>/PVDF dengan metode spin coating (The influence of composition to the grain size of the CoFe<sub>2</sub>O<sub>4</sub>/PVDF.... *PILLAR OF PHYSICS* 12 (2), 2019, D Putri, Y Darvina, 2019

---

Pembuatan set eksperimen gerak harmonis sederhana pada bandul berbasis Sensor Ping dan Sensor Photogate dengan tampilan PC (Fabrication of a simple set of harmonic motion.... *PILLAR OF PHYSICS* 12 (1), 2019, L Handayani, 2019

---

Pembuatan set eksperimen gerak vertikal bawah berbasis Sensor Ping dan Sensor Photogate dengan tampilan PC (Fabrication of a set of bottom vertical motion experiments based onÂ .... PILLAR OF PHYSICS 12 (1), 2019, M Idayu, Z Kamus, 2019

Studi awal rancangan alat colorimeter menggunakan sensor OPT101 untuk menentukan serapan ekstrak pewarna alami berbasis mikrokontroler arduino (Preliminary study of theÂ .... Pillar of Physics 12 (1), 2019, P Kahar, 2019

Rancang Bangun Sistem Pengukuran Suhu Dan Kelembaban Udara Menggunakan Sensor Sht75 Berbasis Internet of Things Dengan Display Smartphone. Berkala Fisika 22 (3), 97-104, 2019, M Iqbal, Y Yulkifli, Y Darvina, 2019

Pengembangan bahan ajar interaktif dengan pendekatan saintifik bermuatan nilai-nilai karakter pada materi hukum newton tentang gerak dan hukum newton tentang gravitasi di kelasÂ .... Pillar of Physics Education 12 (1), 2019, M Risma, M Murtiani, Y Darvina, Y Yulkifli, 2019

Studi awal rancangan alat colorimeter menggunakan sensor OPT101 untuk menentukan serapan ekstrak pewarna alami berbasis mikrokontroler arduino (Preliminary study of theÂ .... Pillar of Physics 12 (1), 2019, P Kahar, 2019

Pembuatan set eksperimen gerak harmonis sederhana pada bandul berbasis Sensor Ping dan Sensor Photogate dengan tampilan PC (Fabrication of a simple set of harmonic motionÂ .... PILLAR OF PHYSICS 12 (1), 2019, L Handayani, 2019

Pembuatan set eksperimen gerak vertikal bawah berbasis Sensor Ping dan Sensor Photogate dengan tampilan PC (Fabrication of a set of bottom vertical motion experiments based onÂ .... PILLAR OF PHYSICS 12 (1), 2019, M Idayu, Z Kamus, 2019

Development of Natural Science Books Inquiry Based Learning Model with Character Contents. IOSR Journal of Research & Method in Education (IOSR-JRME) 9 (issue 3 seriesÂ ..., 2019, R Harry Satria, Yulkifli, 2019

Student worksheet development using inquiry based learning model with contextual approach for physics learning based on the initial analysis of student. ICOMSET2018 1317 (012178), 1-4, 2019, Faradillah, Yulkifli, Festiyed, L Resnita, 2019

### Research of the Last 5 Years

Pengembangan Early Warning System Gempa Bumi Dengan Display Smartphone Berbasis Sensor Getaran Tiga Dimensi. Penelitian Terapan Kompetitif Nasional, Leader: Yulkifli, Implementation Year: 2024

Pengembangan Protector Scoring System Berbasis Sensor Pada Pencak Silat Kategori Tanding Untuk Standarisasi Penilaian. Penelitian Terapan Unggulan Perguruan Tinggi, Leader: Nurul Ihsan, Implementation Year: 2023

Pengembangan Early Warning System Gempa Bumi Dengan Display Smartphone Berbasis Sensor Getaran Tiga Dimensi. Penelitian Terapan Kompetitif Nasional, Leader: Yulkifli, Implementation Year: 2023

Pengembangan Otomatisasi Instrumen Klimatologi Tanah Pertanian Berbasis Internet Of Things Dengan Display Smartphone Android. Pt-penelitian Terapan, Leader: Yulkifli, Implementation Year: 2022

Pengembangan Early Warning System Gempa Bumi Dengan Display Smartphone Berbasis Sensor Getaran Tiga Dimensi. Penelitian Terapan Kompetitif Nasional, Leader: Yulkifli, Implementation Year: 2022

Pembuatan Sensor Glukosa Berbasis Bahan Nanomaterial Zinc Nitrate Sodium Dedocyl Sulphate Fluazinam. Penelitian Tesis Magister, Leader: Yulkifli, Implementation Year: 2022

Pengembangan E-modul Fisika Terintegrasi Literasi Saintifik Menggunakan Model Inquiry Based Learning Berbantuan Smartphone Untuk Mendukung Pembelajaran Daring Peserta Didik Kelas X Sma. Penelitian Tesis Magister, Leader: Yulkifli, Implementation Year: 2022

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Rancang Bangun Early Warning System Infus Pasien Menggunakan Sistem Otomatisasi Melalui Display Smartphone. Pt-penelitian Unggulan Perguruan Tinggi Terapan, Leader: Aulia Asman, Implementation Year: 2022

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Pengembangan Dan Karakterisasi Molecularly Imprinted Polymer Silika Nanomaterial Dari Bahan Alam Sebagai Bahan Biosensor Dan Sensor Kimia. Penelitian Kerjasama Perguruan Tinggi Luar Negeri, Leader: Alizar, Implementation Year: 2022

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Pengembangan Protector Scoring System Berbasis Sensor Pada Pencak Silat Kategori Tanding Untuk Standarisasi Penilaian. Penelitian Terapan Unggulan Perguruan Tinggi, Leader: Nurul Ihsan, Implementation Year: 2022

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Pengembangan Bahan Ajar Ipa Terpadu Menggunakan Pendekatan Etno-stem Untuk Mendukung Pembelajaran Era Revolusi Industri 4.0. Ptpt-penelitian Terapan, Leader: Murtiani, Implementation Year: 2021

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Pengembangan Model Pembelajaran Multi-representasi Pemecahan Masalah (mirecal) Untuk Meningkatkan Keterampilan Literasi Baru Mahasiswa Di Era Revolusi Industri 4.0. Penelitian Disertasi Doktor, Leader: Festiyed, Implementation Year: 2021

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Pengembangan Otomatisasi Instrumen Klimatologi Tanah Pertanian Berbasis Internet Of Things Dengan Display Smartphone Android. Ptpt-penelitian Terapan, Leader: Yulkifli, Implementation Year: 2021

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Pengembangan Dan Karakterisasi Molecularly Imprinted Polymer Silika Nanomaterial Dari Bahan Alam Sebagai Bahan Biosensor Dan Sensor Kimia. Pdpt-penelitian Kerjasama Perguruan Tinggi Luar Negeri Dasar, Leader: Alizar, Implementation Year: 2021

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Pengembangan Sensor Glukosa Portabel Dengan Display Smartphone Android Berbasis Bahan Nano Material. Ptpt-penelitian Kerjasama Perguruan Tinggi Luar Negeri Terapan, Leader: Yulkifli, Implementation Year: 2021

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Pengembangan Protector Scoring System Berbasis Sensor Pada Pencak Silat Kategori Tanding Untuk Standarisasi Penilaian. Penelitian Terapan Unggulan Perguruan Tinggi, Leader: Nurul Ihsan, Implementation Year: 2021

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Pengembangan Bahan Ajar Berbasis Project Based Learning Berbantuan Science Laboratory Kit Untuk Siswa Sma. Penelitian Tesis Magister, Leader: Yohandri, Implementation Year: 2020

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Pengembangan Sensor Glukosa Portabel Dengan Display Smartphone Android Berbasis Bahan Nano Material. Penelitian Kerjasama Pt Luar Negeri Terapan, Leader: Yulkifli, Implementation Year: 2020

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Pengembangan Model Pembelajaran Multi-representasi Pemecahan Masalah (mirecal) Untuk Meningkatkan Keterampilan Literasi Baru Mahasiswa Di Era Revolusi Industri 4.0. Penelitian Disertasi Doktor, Leader: Festiyed, Implementation Year: 2020

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Desain Dan Pembuatan Sistem Akuisisi Data Berbasis Android Dengan Display Smartphone Untuk Pengukuran Parameter Udara. Penelitian Unggulan Perguruan Tinggi Terapan, Leader: Yulkifli, Implementation Year: 2020

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Rancangan Bangun Sensor Kolorimetrik Berbasis Tanaman Lokal Sumatera Barat Sebagai Instrumen Portabel Pengukur Pencemar Logam Berat. Penelitian Dasar Unggulan Perguruan Tinggi, Leader: Yulkifli, Implementation Year: 2020

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Pengembangan Lkpd Berbasis Model Inquiry Based Learning (ibl) Dengan Pendekatan Multi-representasi Untuk Meningkatkan Kemampuan Kolaboratif Pada Pembelajaran Fisika Abad Ke-21. Penelitian Tesis Magister, Leader: Yulkifli, Implementation Year: 2020

Pengembangan Bahan Ajar Berbasis Discovery Learning Berbantuan Science Lab Kit Untuk Siswa Sma. Penelitian Tesis Magister, Leader: Yohandri, Implementation Year: 2020

Desian Biosensor/sensor Elektrokimia Berasaskan Mips Dan Screen Printed Electrode (spe) Untuk Deteksi Kolesterol. Penelitian Kerjasama Pt Luar Negeri Dasar, Leader: Alizar, Implementation Year: 2020

Pengembangan Nano Komposit Mfe<sub>2</sub>O<sub>4</sub> (m=fe,co,ni) Dalam Poly Vinillidene Flouride Untuk Aplikasi Divais Spintronika Yang Fleksibel. Penelitian Dasar, Leader: Ramli, Implementation Year: 2020

Rancangan Bangun Sensor Kolorimetrik Berbasis Tanaman Lokal Sumatera Barat Sebagai Instrumen Portabel Pengukur Pencemar Logam Berat. Penelitian Dasar Unggulan Perguruan Tinggi, Leader: Yulkifli, Implementation Year: 2019

Pengembangan Lembar Kerja Peserta Didik (lkpd) Berbasis Model Inquiry Based Learning Pada Pembelajaran Fisika Kelas Xi Abad Ke-21. Penelitian Tesis Magister, Leader: Yulkifli, Implementation Year: 2019

Pengembangan Lkpd Interaktif Menggunakan Model Inquiry Based Learning (ibl) Melalui Pendekatan Sains Teknologi Dan Masyarakat (stm) Pada Pembelajaran Fisika Kelas X Untuk Meningkatkan Literasi Digital Abad 21. Penelitian Tesis Magister, Leader: Yulkifli, Implementation Year: 2019

Pengembangan Nano Komposit Mfe<sub>2</sub>O<sub>4</sub> (m=fe,co,ni) Dalam Poly Vinillidene Flouride Untuk Aplikasi Divais Spintronika Yang Fleksibel. Penelitian Dasar, Leader: Ramli, Implementation Year: 2019

Desian Biosensor/sensor Elektrokimia Berasaskan Mips Dan Screen Printed Electrode (spe) Untuk Deteksi Kolesterol. Penelitian Kerjasama Pt Luar Negeri Dasar, Leader: Alizar, Implementation Year: 2019

Desain Dan Pembuatan Sistem Akuisisi Data Berbasis Android Dengan Display Smartphone Untuk Pengukuran Parameter Udara. Penelitian Unggulan Perguruan Tinggi Terapan, Leader: Yulkifli, Implementation Year: 2019

Pengembangan Lembar Kerja Peserta Didik (lkpd) Berbasis Project Based Learning Menggunakan Teknologi Video Analysis Tracker Untuk Pembelajaran Fisika Sma. Penelitian Tesis Magister, Leader: Yohandri, Implementation Year: 2019

#### Community Service of the Last 5 Years

Pengembangan Peralatan Praktikum Fisika Dengan Display Smartphone Berbantuan Iot. Program Pengembangan Usaha Produk Intelektual Kampus (ppupik), Leader: Yulkifli, Implementation Year: 2022

Pengembangan Usaha Produk Peralatan Praktikum Fisika. Program Pengembangan Usaha Produk Intelektual Kampus (ppupik), Leader: Yulkifli, Implementation Year: 2020

Pengembangan Usaha Produk Peralatan Praktikum Fisika. Program Pengembangan Usaha Produk Intelektual Kampus (ppupik), Leader: Yulkifli, Implementation Year: 2019

#### IPR's of the Last 5 Years

### **Book of the Last 5 Years**

LKPD berbasis model inquiry based learning dengan pendekatan multirepresentasi terintegrasi literasi saintifik.

ISBN: 9786025994685, Publisher: CV. Berkah Prima, Year: 2020

LKPD interaktif model inquiry based learning menggunakan pendekatan keterampilan proses terintegrasi literasi saintifik. ISBN: 9786025994692, Publisher: CV. Berkah Prima, Year: 2020

Colorimeter dengan display smartphone. ISBN: 9786025994715, Publisher: CV. Berkah Prima, Year: 2020

Lembar kerja peserta didik berbasis model-model pembelajaran inovatif berbantuan alat praktikum fisika menggunakan teknologi sensor dengan display digital. ISBN: 9786237343684, Publisher: CV. IRDH (International Research and Development f, Year: 2019