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IPS 2023

PROGRAMME BOOK

The 12th International Physics Seminar

Department of Physics &
Physics Education,
Universitas Negeri Jakarta

Saturday,
24th June 2023
JAKARTA

"The Diversity Research and Development of Physics for Stronger Recovery"

Supported by : Walcoo Pegadaian WINGS

PREFACE

The 12th International Physics Seminar (IPS 2023) is an annual meeting hosted by the Physics Department, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta (UNJ), supported by the Physical Society of Indonesia (PSI) Jakarta and Banten Chapter.

The theme of the Seminar is "The Diversity Research and Development of Physics for Stronger Recovery". This Seminar aims to bring together academics, scientists, students, postgraduate students, and practitioners to share and discuss theoretical and practical knowledge of problems, new physics trends, and applications. We invite scientists, scholars, engineers, and students from universities around the world and industry to present ongoing research activities, and to support foster research relations between the University and industry. This seminar provides an opportunity for delegates to discuss and share experience of new applications directly, to build business or research relationships and to find global partners for future collaboration.

The aim of the conference is as follows:

1. Extends the mutual understanding among the participants in the wider field of innovation physics and physics education.
2. Inspire the participants by the culture and history of the Jakarta city and Indonesia.
3. Encourage the participants to launch national and international research collaboration projects.
4. Contribute to solution of the physics and physics education problems.

The scope of the Seminar includes but not limited to these topics:

1. Material Physics
2. Instrumentation and Computational Physics
3. Medical Physics & Biophysics
4. Earth Physics and Space Science
5. Theory, Nuclear, and Particle Physics
6. Energy and Environmental Physics
7. Physics Education

Finally, thank you very much to the organizing committees who have been working hard to prepare this conference. It is my honor to say welcome to 157 presenters and all participants coming from many universities in Indonesia. I hope this conference runs smoothly and successfully and the participants feel comfortable with this virtual conference.

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Vice Rector for Academic Affairs UNJ

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Prof. Dr. Komarudin, M.Si.

Rector of Universitas Negeri Jakarta

On Saturday, June 24 2023, an international physics seminar (IPS) 2023 was held, which was originally an international physics seminar called the National Physics Seminar (SNF). We thanks to the keynote speakers and also the speakers who have participated in IPS, we also appreciate all the IPS 2023 committee who have prepared this event. Hopefully this seminar will run well. The theme of the physics national seminar this time was very interesting, namely "The Diversity of Physics Research and Development for Stronger Recovery". Where this theme is expected to increase our enthusiasm to carry out various research or innovations to provide solutions to various needs and challenges in the present and in the future. Various research and development in the field of physics will encourage us to be more advanced, especially in the world of education, various innovations must always be grown, one of which can be done through research and development. From research and development we will get innovations both related to physics education and to physics itself. Only with innovation, both physics and physics education will make progress. Therefore, I think it is very important for IPS participants to always have an attitude or personality both in learning Physics and in carrying out the physics learning process. At this seminar we have presented keynote speakers who I think are experts in their fields, and it is hoped that what the keynote speakers presented can inspire all of us to innovate both in the field of physics and physics education. We hope that seminar participants can take part in this event from start to finish and benefit from this activity, especially from the resource persons.

Prof. Dr. Muktiningsih.N., M. Si

Dean of Mathematics and Natural Science Faculty

On this Saturday, June 24th, 2023, the International Physics Seminar (IPS) 2023 is being held. This seminar was initially known as the National Physics Seminar (IPS). The seminar is organized by the collaboration between the Physics Study Program and the Physics Education Study Program of the Faculty of Mathematics and Natural Sciences, Jakarta State University, in partnership with the Physical Society of Indonesia, Jakarta-Banten.

The theme of International Physics Seminar 2023 is "The Diversity of Physics Research and Development for Stronger Recovery," that aiming to open discussion on various research and development and providing solutions for the needs and advancements in science and technology, particularly in the fields of physics and physics education, to promote further progress.

University fully supports activities related to increasing the number of scientific article publications, such as the one being carried out today. I hope these activities can continue and improve in the future.

I would also like to extend my gratitude to the entire organizing committee for successfully organizing IPS 2023, and I express my appreciation for the support from the Rector of UNJ, the coordinators of the Physics and Physics Education study programs, Jakarta State University, and other institutions and organizations who involved in this event.

Finally, I hope that the Physics Education and Physics Study Programs of the Faculty of Mathematics and Natural Sciences at Jakarta State University will continue to enthusiastically organize IPS as a platform for scientific discourse and serve as a forum for interaction and collaboration among educators, researchers, and practitioners. I hope the success for this activity and all people who join this event.

Prof. Dr. Agus Setyo Budi, M.Sc

Chairman of Physical Society of Indonesia

The 12th International Physics Seminar 2023 (IPS 2023) is a transformation of the National Physics Seminar. Since its inception, this activity was held as a form of collaboration between the Physics and Physics Education Study Program, Faculty of Mathematics and Natural Sciences, Jakarta State University (FMIPA-UNJ) and the Jakarta-Banten branch of the Physical Society of Indonesia (PSI).

In 2023, the national seminar which has been transformed into an International Seminar on Physics has entered its 12th year and carries the theme "The Diversity Research and Development of Physics for Stronger Recovery". Through this theme, I believe that this international seminar will be a useful scientific meeting for exchange development of extensive research in the field of Physics so that collaboration can be established to produce superior basic and applied scientific works. Implementation which is carried out in a hybrid manner allows it to be widely followed by

from the State University of Jakarta who has been willing to take the time and is willing to share his experiences at this seminar. To all committee members of The 12th International Physics Seminar 2023 (IPS 2023) from the Physics Cluster, Faculty of Mathematics and Natural Sciences, Jakarta State University (FMIPA- UNJ) I would like to thank you for your hard work and commitment so that the 2023 Physics International Seminar can be held. Of course, I would also like to thank the Chancellor and all leaders of the Jakarta State University, the Dean, the Coordinator of the Physics and Physics Education Study Program at the Jakarta State University FMIPA and all the agencies/institutions that have helped organize this seminar. Finally, I hope that this Physics International Seminar will be able to become a forum for scientific meetings that act as a forum for interaction, collaboration and integration between educators, researchers and practitioners.

Dr. Firmanul Catur Wibowo, M.Pd

Chairman of International Physics Seminar 2023

The 12th International Physics Seminar 2023 (IPS 2023) is a transformation of the National Physics Seminar (SNF 2023). Permission to report the 12th IPS activity was attended by participants from campuses in Indonesia and raised the theme "The Diversity Research and Development of Physics for Stronger Recovery".

IPS is a place for annual periodic scientific meetings held by the physics education study program and the physics study program at the Faculty of Mathematics and Natural Sciences, Jakarta State University

IPS as a forum for collaborative interaction and integration between educators, researchers and IPS practitioners this year is the 12th year. Since the first IPS was held, it is part of the Jakarta State University Anniversary series.

SNF starting in 2014 was held in collaboration with the physics study program and physics education at FMIPA UNJ with the Jakarta Banten branch of the Indonesian physics association through this collaboration it is hoped that it can make a positive contribution to the progress of Indonesian science, especially in terms of education and physics. This seminar will present 3 core speakers, namely one Prof. Mousa Attom, American University of Sharjah, UAE, Prof. Nizam abd Rahman. Malaysia Technical University Melaka, Malaysia and Dr. Anggara Budi Susila from Jakarta State University, Indonesia. The total number of IPS 2023 participants is 222 presenters with fields of study covering physics education, instrumentation, computational physics, material physics, biomedical, theoretical physics, and nuclear physics.

Finally, on behalf of the Committee, we would like to thank the management of the HFI Jakarta Banten branch and FMIPA UNJ Sponsors: Pegadaian, Walco, Wings and all parties who have helped carry out this event.

SCHEDULE IPS 2023

The event will be held in :

Offline : Hasyim Asy'arie Building, 6th floor, FMIPA, UNJ

Online : bit.ly/Seminar_Fisika_IPS

Time	AGENDA
07.00-08.00	Registration
08.00-08.10	Opening "Tarian Kreasi"
08.10-08.15	Indonesian National Anthem
08.15-08.20	Committee Chair's Report IPS&SNF 2023
08.20-08.30	Welcome Speech the Head of PSI Jakarta
08.30-08.40	Welcome Speech Dean of Matemathic and Natural Science Faculty UNJ
08.40-08.50	Speech & Opening Rector UNJ
08.50-09.30	Keynote Speaker: Dr. Anggara Budi Susila, M.Si. (Universitas Negeri Jakarta, Indonesia)
09.30-09.50	Question and Answer
09.50-10.10	Presentation from Pegadaian
10.10-10.20	Break
10.20-10.50	Keynote Speaker : Prof. Dr. Mousa Attom. (American University of Sharjah, Uni Emirat Arab)
10.50-11.20	Keynote Speaker: Prof. Dr. Md Nizam bin Abdul Rahman. (Universiti Teknikal Melaka Malaysia, Malaysia)
11.20-11.40	Question and Answer
11.40-11.50	Photo Session and doorprize
11.50-13.00	Closing (Prayer, Rest and Lunch)
13.00-17.30	Parallel Session and Carcom

COMMITTEE IPS 2023

Organizing Committee

Chairman

- Dr. Firmanul Catur Wibowo, M.Pd

Co-Chairman

- Dewi Muliyati, M.Si, M.Sc

Advisory Board

- Prof. Dong-Hyun Kim, Ph.D. (Chungbuk National University, South Korea)
- Prof. Hsiang-Lin Liu, Ph.D. (National Taiwan Normal University, Taiwan)
- Prof. Dr. Marie Paz E. Morales (Philippine Normal University, Philippine)
- Prof. Dr. Md. Nizam bin Abdul Rahman (UTeM Malaysia, Malaysia)
- Prof. Dr. Md. Rahim Sahar (UTM Malaysia, Malaysia)
- Prof. Dr.Ing. Mitra Djamal (Institut Teknologi Bandung, Indonesia)
- Prof. Dr. Ratno Nuryadi (Pusat Teknologi Material BPPT, Indonesia)
- Prof. Dr. Yusaku Fujii (Gunma University, Japan)
- Assoc. Prof. Dr. Akrajas Ali Umar, MIEEE (IMEN- UKM, Malaysia)
- Supriyanto Ardjo Pawiro, M.Si., Ph.D. (Universitas Indonesia, Indonesia)
- Assoc. Prof. Tan Swee Tiam, Ph.D. (Xiamen University Malaysia, Malaysia)

Scientific Committee

- Prof. Taufik (California Polytechic State University, Amerika Serikat)
- Prof. Dr. Anto Sulaksono (Universitas Indonesia)
- Dra. Ariadne L. Juwono, M.Eng, Ph.D (Universitas Indonesia)
- Dr. Budhy Kurniawan (Universitas Indonesia)

- Dr. Acep Purqon (Institut Teknologi Bandung)
- Dr. Ing. R. Wahyu Widanarto (Universitas Jenderal Soedirman)
- Prof. Dr. Putut Marwoto (Universitas Negeri Semarang)
- Dr. Artoto Arkundato (Universitas Jember)
- Prof. Dr. Agus Setyo Budi, M.Si (Universitas Negeri Jakarta)
- Prof. Dr. I Made Astra, M.Si (Universitas Negeri Jakarta)
- Prof. Dr. Yetty Supriyati, M.Pd (Universitas Negeri Jakarta)
- Prof. Dr. Mangasi A. Marpaung, M.Si (Universitas Negeri Jakarta)
- Prof. Dr. Erfan Handoko, M.Si (Universitas Negeri Jakarta)
- Dr. Iwan Sugihartono, M.Si (Universitas Negeri Jakarta)
- Prof. Dr. Sunaryo, M.Si (Universitas Negeri Jakarta)

Administrations Secretariat

- Lari Andres Sanjaya, M.Pd
- Dr. Widyaningrum, M.Si
- Wulandari Fitriani, M.Pd

Program

- Dr. Mutia Delina, M.Si
- Upik Rahma Fitri, M.Pd

Finance

- Dr. Umiatin, M.Si

Publications

- Haris Suhendar, M.Sc
- Dr. Hadi Nasbey, M.Si
- Prof. Dr. Mangasi A. Marpaung, M.Si

Public Relations and Documentation

- Dr. Esmar Budi, M.T
- Dr. Teguh Budi P, M.Si
- Iffah Hamidah, S.Pd
- Muhamad Fajrin, ST.

Web Promotion and Sponsorship

- Prof. Dr. Agus Setyo Budi
- Prof. Dr. Yetty Supriyati, M.Pd
- Prof. Dr. Sunaryo, M.Si
- Dr. rer. nat. Bambang Heru I., M.Si
- Dr. Iwan Sugihartono, M.Si
- Prof. Dr. I Made Astra, M.Si
- Iqbal Nurkholis, S.Pd
- Alfarizi Adekarlin Kusuma, S.Pd

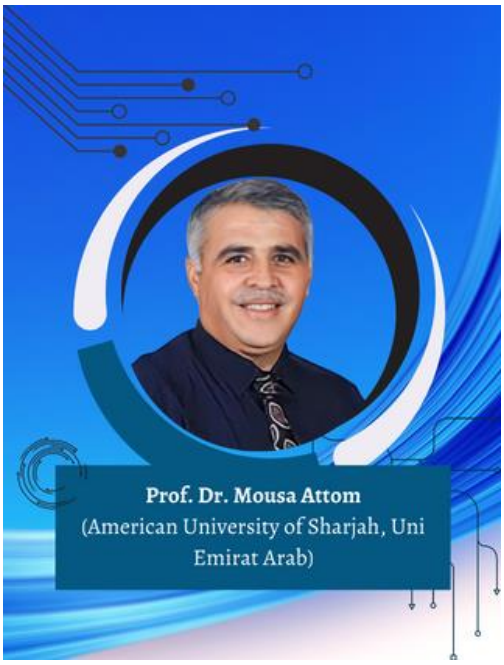
Transportation and Accommodation

- Fauzi Bakri, M.Si
- Riser Fahdiran, M.Si
- Handjoko Permana, M.Si
- Dr. Anggara B Susila, M.Si
- Nurdi Akbar, ST

Consumption

- Dwi Susanti, M.Pd
- Dr. Vina Serevina, MM

KEYNOTE SPEAKERS



Plenary Session Rule

FOR PARTICIPANTS

- Please keep the microphone muted when presentation is going on. This is to prevent unwanted noise and disturbance.
- Participants shall be required to unmute their microphone when moderator let them to ask the question.
- If participants have any questions for the keynote speaker, please write it down in the chat feature/chat box.
- If time is possible, moderator may be able to select participants to ask questions directly by sending raising hand emoticon, opening their camera, and turn on their microphone.
- Please rename your zoom with the following format: **Room_ABS ID_Name**. Example: Room 6_ABS-4_Andi Adrian.

Parallel Session Rule

FOR PRESENTERS

- Please make sure to use the right name format as we inform before.
- Please kindly check the parallel session schedule to ensure your presentation time.We hope that you are all in the right room.
- Please join the parallel session since your presentation is scheduled at the beginning. Please do not wait until it is time for your presentation to join.
- Invited speaker will present the paper directly (in live session). The allocated timeis 7 minutes.
- The presentation video of each presenter will be play by the technical team.
- The questions and answer session for each presenter will be conducted after the presentation. The allocated time for Q&A session is 3 minutes for each presenter.
- Presenter will be allowed to turn on the microphone during Q&A session.
- If you have any technical issues, please reach out directly moderator or technical team (PIC/student) via chat feature.
- All presenters are expected to turn on the video camera and to use the Virtual Background of the conference.

FOR AUDIENCES

- Please keep the microphone muted when presentation is going on. This is to preventunwanted noise and disturbance.
- If you have any questions for the presenter, please write it down in the chat feature/chat box.
- If time is possible, moderator may be allow the participants to ask questions directlyto the presenter.
- The meetings and presentations will be recorded.

PARALLEL SESSION SCHEDULE

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **1**
Moderator : **Dr. Umiatin, M.Si**
Operator : **Shallu**
Place : **OFFLINE at GHA Room 303**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room_1**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	PENDEKATAN DEEP LEARNING UNTUK MEMPREDIKSI ENERGI KEADAAN DASAR BERDASARKAN POTENSIAL OSILATOR HARMONIK SEDERHANA DUA DIMENSI *Achmad Jaelani*
2	13.17 – 13.24	Karakterisasi dan Pengujian Sensor MQ-7 dan MQ-136 untuk Pengembangan Sistem Monitoring Konsentrasi Gas Karbon Monoksida (CO) dan Sulfur Dioksida (SO2) *Saffanah Ghina Muqita*
3	13.24 – 13.31	SOLUSI PERSAMAAN SCHRODINGER UNTUK MOLEKUL DIATOMIK SEDERHANA MENGGUNAKAN FUNGSI GELOMBANG SATU PARAMETER SLATER TYPE ORBITAL *Fiqri Aditya Riyanto*
	13.31 - 13.41	Question and Answer of Panel 1
		Panel 2
4	13.41 – 13.48	Karakterisasi dan Pengujian Sensor MQ-4 dan MG-811 untuk Pengembangan Sistem Monitoring Konsentrasi Gas Metana dan Karbon Dioksida di Udara I Gusti Ayu Isnaini Fatha Ramadhani
5	13.48 – 13.55	Analysis of Thermophysical Properties of Chicken Eggshell-Derived CaCl2Â·6H2O as an Alternative Phase Change Material *Dyah Arum Wulandari*

No	Time (Western Indonesia Time GMT+7)	Title and Author
6	13.55 – 14.02	Design of RF Cavity Test Module for Electron Accelerator with Magnetron 2.45 GHz *Ari Satmoko*
	14.02 – 14.12	Question and Answer Panel 2
Panel 3		
7	14.12 – 14.19	Detection and Identification of Amino Acid L-lysine in Appetite Enhancing Supplements based on Amperometric Biosensors *Lazuardi Umar*
8	14.19 – 14.26	Comparison of Phenol Formaldehyde with Polyvinyl Chloride Resin as Binder Bonded NdFeB Magnet for Axial Flux Generator *Nanang Sudrajat*
9	14.26 – 14.33	Use the Hot Springâ€™s Chloro-Alkaline Index for the Low Enthalpy Prospect of the Rawadanau Geothermal Field *Priyo Hartanto*
	14.33 – 14.43	Question and Answer Panel 3
Panel 4		
10	14.43 – 14.50	Synthesis Liquid Crystal Composites Diacrylate Resin of 2-methyl-1,4-phenylene bis(4-(3-acryloyloxy)propoxy)benzoate) with Methyl Metacrylate *Afrizal Afrizal*
11	14.50 – 14.57	The Power-Normalized Cepstral Coefficient (PNCC) for Convolutional Neural Networks-based Robust Speech Command Recognition *Huzaifi Hafizhahullah*
12	14.57 – 15.04	Handwashing Gesture Recognition Using Infrared Camera Video *Daffa Aji Pangestus*
	15.04 – 15.14	Question and Answer Panel 3
13	15.14 – 15.20	Pengumuman presenter dan pemakalah terbaik
14	15.20 – 15.30	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **2**
Moderator : **Dr. Hadi Nasbey**
Operator : **Anindita**
Place : **OFFLINE at GHA Room 304**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room_2**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	Aplikasi Interaktif Digital Modul Physics (IDMP) Berbasis Problem Based Learning (PBL) Pada Konsep Materi Usaha Dan Energi *Rendy Setyabudi*
2	13.17 – 13.24	Rancangan Website “Fidikenya” Sebagai Media Pembelajaran Kontekstual Fisika Dalam Kehidupan Sehari-Hari *Ni Made Ayu Diarti Putri Artasya*
3	13.24 – 13.31	Rancangan Modul Digital "Phyqsure" Berbasis STAD pada Materi Besaran Fisika dan Pengukuran *Fadia Fatasya Rahmatika*
	13.31 – 13.40	Question and Answer of Panel 1
		Panel 2
4	13.41 – 13.48	Desain Praktikum Induksi Magnetik Berbasis Data Logger *Early Amada*
5	13.48 – 13.55	Pengembangan Modul Digital Berbasis STEM-Project Based Learning Pada Materi Energi Terbarukan *Amel Dwi Cahya Putri*
6	13.55 – 14.02	Pengembangan Buku Pengayaan Pengetahuan Fisika Tentang Karakteristik Gelombang Mekanik Berbasis Contextual Teaching And Learning (CTL) Untuk Siswa SMA *Asri Estiningsih*
	14.02 –14.11	Question and Answer Panel 2

No	Time (Western Indonesia Time GMT+7)	Title and Author
Panel 3		
7	14.12 – 14.19	Rancangan Media Pembelajaran Berbasis Stem Berbantuan Google Sites Pada Materi Medan Magnet *Muhammad Imam Mauludin*
8	14.19 – 14.26	IDM (Interactive Digital Module) Berbasis Discovery Learning pada Materi Elastisitas dan Hukum Hooke *Hilma Suhailah Rizky*
9	14.26 – 14.33	Lembar Kerja Peserta Didik (LKPD) Berbasis Project Based Learning Pada Materi Fluida Statis *Olivia Oktaviara*
10	14.33 – 14.40	Rancangan Modul Elektronik Dilemma-Steam pada Materi Energi Terbarukan *Ruth Angelina Sirait*
	14.40 – 14.49	Question and Answer Panel 3
11	14.50 – 14.55	Announcement Best Paper and Best Presenter
12	14.55 – 15.00	Closing of The Parallel Session

PARALLEL SESSION

The 12th International Physics Seminar 2023

Saturday, June 24th, 2023

Room : **3**
Moderator : **Handjoko Permana, M.Si**
Operator : **Budi**
Place : **OFFLINE at GHA Room 308**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **http://bit.ly/ppt_room_3**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	Motion Graphic Berbasis Pembelajaran Dilema-STEAM pada Materi Gerak Parabola *Nanda Putri Apriliani*
2	13.17 – 13.24	Penerapan E-Projects Berbantuan Nano Learning Physics Untuk Meningkatkan Problem Solving Skills Pada Konsep Energi Alternatif *Debbie Puspa Amalia*
3	13.24 – 13.31	Review of Mobile Learning Trends Integrated by STEM-PjBL in Physics Learning *Febiola Paquita Bakri*
	13.31 – 13.40	Question and Answer of Panel 1
		Panel 2
4	13.41 – 13.48	Alat Peraga Pemuaian Panjang Berbantuan Arduino Untuk Peserta Didik Kelas XI *Mochamad Rizky Fradyatama*
5	13.48 – 13.55	Monopoly-Based Augmented Reality Game Design As A Practice Media In Learning The Physics Of Magnetism Concepts *Drajat Agung Nugroho*
6	13.55 – 14.02	Pengembangan Media Pembelajaran Berbasis Website Penerapan E-Learning Berbasis (POQE) Prediction-Observation-Quiz-Explanation Pada Konsep Global Warming *Eva Aulia*
	14.02 –14.11	Question and Answer Panel 2
		Panel 3

No	Time (Western Indonesia Time GMT+7)	Title and Author
7	14.12 – 14.19	Pengembangan Video Pembelajaran Materi Relativitas Khusus Pada Media Sosial Tiktok *Wini Sholina*
8	14.19 – 14.26	Desain LKPD Materi Gerak Untuk Melatih Pattern Recognition Thinking Steps Melalui Integrasi Robotik *Nisrina Tsabitah Zain*
9	14.26 – 14.33	Pengembangan Komik Digital Fisika Pada Materi Proses Efek Rumah Kaca *Siti Rachmawati*
10	14.33 – 14.40	Interactive Digital Module Berbasis Learning Cycle 5E Pada Konsep Fluida Statis *Tiara Pramudita Widianingrum*
	14.40 – 14.49	Question and Answer Panel 3
11	14.50 – 14.55	Announcement Best Paper and Best Presenter
12	14.55 – 15.00	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **4**
Moderator : **Dr. Teguh Budi Prayitno, M.Si**
Operator : **Ivan**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**

Link for uploading ppt : **bit.ly/ppt_room4**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	VARIASI RAPAT ARUS TERHADAP SIFAT MEKANIK DAN MORFOLOGI LAPISAN MAGNESIUM AZ31 DENGAN MENGGUNAKAN METODE ELCTROPHORETIC DEPOSITION (EPD) *Hafsah Mujahidah*
2	13.17 – 13.24	BAGAIMANA PENGARUH PENAMBAHAN JENIS KERAMIK OKSIDA TERHADAP MORFOLOGI DAN KEKERASAN MAGNESIUM AZ31 DENGAN PROSES ELECTROPHORETIC DEPOSITION (EPD) *Syifa Ranggayoni Nurbaiti*
3	13.24 – 13.31	PENGARUH VARIASI WAKTU TERHADAP MORFOLOGI DAN MECHANICAL PROPERTIES PADA PROSES ELECTROPHORETIC DEPOSITION MgAZ31 *Amalia Syahiddah*
4	13.31 – 13.39	The characterization of Pahae natural zeolite and its application on ammonium removal *Susilawati*
	13.39 - 13.46	Question and Answer of Panel 1
		Panel 2
5	13.46 – 13.53	PENGARUH RAPAT ARUS PULSA TERHADAP PEMBENTUKAN LAPISAN KOMPOSIT Ni-TiN DENGAN MENGGUNAKAN METODE ELEKTRODEPOSISI *Ajis Maulana*
6	13.53-14.00	Antioxidant Activity and Release Profile of Electrospun Cellulose Acetate/Gelatin Nanofiber containing Mangosteen Hull Extract

No	Time (Western Indonesia Time GMT+7)	Title and Author
		Fuji Hernawati Kusumah
7	14.00 – 14.07	Nozzle Diameter and Expansion Ratio of Compressed Air Foam System *Fransisca Maria Farida*
8	14.07-14.14	Investigating Magnetoresistance Properties on a Periodic Poly(dA)-Poly (dT) DNA Structure *Efta Yudiarsah*
	14.14 – 14.21	Question and Answer Panel 2
		Panel 3
9	14.21 – 14.28	PENGARUH RAPAT ARUS PULSA TERHADAP PEMBENTUKAN LAPISAN KOMPOSIT Ni-AlN MENGGUNAKAN METODE ELEKTRODEPOSISI *Muhammad Rayhan Rosadi*
10	14.28 – 14.35	The Measurement of Thermal Conductivity with Comparative Methods For Thermoelectric Materials *Indah Marifatin*
11	14.35 – 14.42	PENGARUH RAPAT ARUS PULSA TERHADAP PEMBENTUKAN LAPISAN KOMPOSIT Ni-TiNAlN/ Si3N4 DENGAN MENGGUNAKAN METODE ELEKTRODEPOSISI *Alayya Binta Maulida*
12	14.42 – 14.49	SINTESIS DAN ANALISIS STRUKTUR KRISTAL NANOPARTIKEL ZnO MENGGUNAKAN METODE PRESIPITASI DENGAN PH-7 *Septiana Tri Amaliya*
	14.49 – 14.56	Question and Answer Panel 3
		Panel 4
13	14.56 – 15.03	Sintesis dan Analisis Serap (Absorbansi) Nanokomposit Fe3O4/SiO2 Direntang Ultraviolet-Cahaya Tampak (Uv-vis) *Diva Cassia Mayora*
14	15.10 – 15.17	High-energy Ball Milling Technique for TiO2 Nanoparticles as a Photoelectrode of Dye-Sensitized Solar Cells (DSSCs) *Ai Nurlaela*
15	15.17 – 15.24	KAJIAN EKSPERIMEN DAN KOMPUTASI TIO2 TERDOPING NITROGEN SEBAGAI FOTOELEKTRODA *Elvan Yuniarti*

No	Time (Western Indonesia Time GMT+7)	Title and Author
16	15.12 – 15.22	KARAKTERISTIK ELEKTROKIMIA ELEKTRODA KOMPOSIT GRAFENA/ TiO2/ LOGAM (Sn, Ni) UNTUK PEREDUKSI CO2 *Vita Efelina*
	15.22 - 15.29	Question and Answer of Panel 4
17	15.30 – 15.35	Pengumuman presenter dan pemakalah terbaik
18	15.35 – 15.45	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **5**
Moderator : **Dr. Iwan Sugihartono, M.Si**
Operator : **Catur Anthony**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **http://bit.ly/ppt_room_5**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	SINTESIS DAN ANALISIS STRUKTUR KRISTAL NANOPARTIKEL ZnO MENGGUNAKAN METODE PRESIPITASI pH-12 *Nia Tiawati*
2	13.17 – 13.24	STUDI AWAL BIOSINTESIS NANOPARTIKEL ZnO MENGGUNAKAN EKSTRAK DAUN Moringa oleifera DENGAN TEKNIK PRESIPITASI *Ridha Octa Alhuriyyah Azzahra*
3	13.24 – 13.31	ANALISIS STRUKTUR KRISTAL DAN ABSORBANSI LAPISAN TIPIS ZnO DI ATAS SUBSTRAT KACA BERPELAPIS INDIUM TIN OXIDE *Nada Alfi Aliyah*
4	13.31 – 13.39	Effect of temperature on the creep properties of polycrystalline Cu-Ni alloy: insight from molecular dynamics simulation *Mohamad Zaenudin*
	13.39 - 13.46	Question and Answer of Panel 1
		Panel 2
5	13.46 – 13.53	Analysis of Magnetic Nonpotentiality in the Flaring Active Region NOAA 12887 *Jihan Nabilah*
6	13.53-14.00	One-dimensional basis function approach to solve the SchrÃ¶dinger equation for multi-electron atoms *Yanoar Pribadi Sarwono*
7	14.00 – 14.07	The Effect of Orientation on Tensile Strength 3D Printing with ABS and PLA Materials

No	Time (Western Indonesia Time GMT+7)	Title and Author
		eko arif syaefudin
8	14.07-14.14	YOLOv3 Algorithm to Measure Free Fall Time and Gravity Acceleration *amario fausta*
	14.14 – 14.21	Question and Answer Panel 2
		Panel 3
9	14.21 – 14.28	KARAKTERISTIK SUARA KETUKAN BUAH KELAPA BERDASARKAN DOMAIN WAKTU DAN DOMAIN FREKUENSI *Paulina Riska Oktaviani*
10	14.28 – 14.35	Experimental study of thermoelectric cooling system for a parked car with solar energy *Ragil Sukarno*
11	14.35 – 14.42	Compressibility Effects on Turbulent Heat Transfer of Natural Convection in a Square Cavity *Rida Siti Nur'aini Mahmudah*
12	14.42 – 14.49	Nickel Layers Properties Produced by Electroplating were Influenced by Spinning Permanent Magnet *Ferry Budhi Susetyo*
	14.49 – 14.56	Question and Answer Panel 3
		Panel 4
13	14.56 – 15.03	Designing of a Motorcycle Security System Using an IoT-Based Android Smartphone Application *Muhammad Yusro*
14	15.10 – 15.17	Electrodeposition of Zn-Doped Cu2O-Cu/Ni and Its Application for Methylene Blue Photodegradation *Setia Budi*
15	15.17 – 15.24	Effect of Low Magnetic Field during Nickel Electroplating on Morphology, Structure, and Hardness *Ferry Budhi Susetyo*
16	15.12 – 15.22	Optical and Structural Characterization of Intrinsic Silicon Thin Film Grown on Glass Substrates Using HWC-VHF-PECVD Method: Effect of Substrate Temperature Variation *Abd. Wahidin Nuayi*
	15.22 - 15.29	Question and Answer Panel 4
17	15.30 – 15.35	Pengumuman presenter dan pemakalah terbaik

No	Time (Western Indonesia Time GMT+7)	Title and Author
18	15.35 – 15.45	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **6**
Moderator : **Riser Fahdiran, M.Si**
Operator : **Gustama Wibawa**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room_6**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
Panel 1		
1	13.10 – 13.17	Perbandingan Nilai Ukur Sensor Load Single-Point dan Load Cell Half-Bridge Sebagai Parameter Monitoring Massa Badan pada Sistem Antropometri *Ahmad Fatullah*
2	13.17 – 13.24	Optimasi Posisi Sensor Load Cell Half-Bridge Sebagai Parameter Pengukuran Berat Badan Pada Sistem Antropometri Balita *Rista putri nur ifa*
3	13.24 – 13.31	ANALISIS MODEL PREDIKSI CUACA MENGGUNAKAN SUPPORT VECTOR MACHINE, GRADIENT BOOSTING, RANDOM FOREST, DAN DECISION TREE *Risanti*
4	13.31 – 13.39	Karakterisasi Sensor Kamera Termal AMG8833 untuk Perancangan Sistem Pengukuran Temperatur pada Mesin *Ridho Achmadi*
	13.39 - 13.46	Question and Answer of Panel 1
Panel 2		
5	13.46 – 13.53	Karakterisasi ESP32 Camera dan Sensor Suhu MLX90614-DCI pada Sistem Pengendali Pintu Otomatis *Alya Muthiah*
6	13.53-14.00	Mathematical and Machine Learning Application Approach to Predict Mass Flowrate

No	Time (Western Indonesia Time GMT+7)	Title and Author
		Agustinus Titis Christian Rahmali
7	14.00 – 14.07	Design of garage Monitoring System Using RFID and Vehicle Sensor Based on Microcontroller *Rafiuddin Syam*
8	14.07-14.14	Application of Very Eddy Simulation to Convective Flow in Partially Divided Two-dimensional Cavity *Gunarjo S Budi*
	14.14 – 14.21	Question and Answer Panel 2
Panel 3		
9	14.21 – 14.28	The Physics of Sound: Understanding How English Horn Instruments Produce Harmonious Tones *Hery Budiawan*
10	14.28 – 14.35	Pengembangan Aplikasi Sensor Giant Magnetoresistance untuk Mengukur Kecepatan Putar Berbasis Mikrokontroler Atmega328 *Ahmad Aminudin*
11	14.35 – 14.42	KARAKTERISASI SENSOR HY-SRF05 DAN LOAD CELL SINGLE-POINT SEBAGAI PARAMETER PENGUKURAN ANTROPOMETRI PADA SISTEM PEMANTAUAN STATUS GIZI BAYI *Nova Nur Halimah*
12	14.42 – 14.49	The Effect of Photon Beam Energy in Neutron Contamination during Radiotherapy *Irna Jelita Estri Satiti*
	14.49 – 14.56	Question and Answer Panel 3
Panel 4		
13	14.56 – 15.03	Mathematical Model to Calculate the Total Number of Decays in Peptide Receptor Radionuclide Therapy Using Nonlinear Mixed Effect Modelling *Abyan Jadidan*
14	15.10 – 15.17	Karakterisasi Sensor TDS SEN 0244 dan Sensor pH-4502C dalam Implementasinya pada Penanaman Hidroponik *Ari Saputra*
15	15.17 – 15.24	RANCANG BANGUN ALAT UKUR KECEPATAN ANGIN MENGGUNAKAN PHOTOINTERRUPTER BERBASIS MIKROKONTROLER ARDUINO UNO *Shantyka Virgita Aldina*

No	Time (Western Indonesia Time GMT+7)	Title and Author
16	15.12 – 15.22	Gamma Spectrometer Callibration of Liquid Standard Sources of Mix Ba133, Cs137 and Co60 Toward the Measurement of Radionuclides in Medicine *Siska Febriana*
	15.22 - 15.29	Question and Answer Panel 4
17	15.30 – 15.35	Pengumuman presenter dan pemakalah terbaik
18	15.35 – 15.45	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **7**
Moderator : **Dr. Mutia Delina, M.Si**
Operator : **Fathur Rachmansyah**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room_7**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
Panel 1		
1	13.10 – 13.17	KARAKTERISASI SENSOR MPX5050GP PADA PERANCANGAN PROTOTIPE SFIGMOMANOMETER DIGITAL FULL AUTOMATIC BERBASIS MIKROKONTROLER *Aldaciptarisa*
2	13.17 – 13.24	Implementation of Active Noise Cancellation for Sound Isolation Box *Chery Chaen Putri*
3	13.24 – 13.31	Macrobending loss in fiber optic wrapped on rubber-spring wire structure under static load-pressure *Hari Pratomo*
4	13.31 – 13.39	IDENTIFIKASI LOKASI TERBAIK PENGGUNAAN DATA SATELIT HIMAWARI-8 DALAM ESTIMASI CURAH HUJAN BERDASARKAN PERMASALAHAN PARALAKS DAN SUHU PUNCAK AWAN (STUDI KASUS DI WILAYAH INDONESIA BAGIAN BARAT) *Galih Muhammad Ghufron*
	13.39 - 13.46	Question and Answer of Panel 1
Panel 2		
5	13.46 – 13.53	PENENTUAN LOKASI TERBAIK UNTUK ESTIMASI CURAH HUJAN BERDASARKAN EFEK PARALAKS DAN SUHU PUNCAK AWAN MENGGUNAKAN DATA SATELIT HIMAWARI-8 (STUDI KASUS DI WILAYAH INDONESIA BAGIAN TENGAH) *Hibar Nugraha Jonathan*

No	Time (Western Indonesia Time GMT+7)	Title and Author
6	13.53-14.00	THE EFFECT OF EXTERNAL ELECTRIC FIELD ON THE ELECTRICAL AND MAGNETIC PROPERTIES OF NICL2 MONOLAYER WITH DENSITY FUNCTIONAL THEORY *Muhammad Andrianto Abdillah*
7	14.00 – 14.07	Simulation of Temperature Distribution in 3D Printing Heated Chamber on Orientation and Temperature Variations with ABS Material *Ahmad Kholil*
8	14.07-14.14	KARAKTERISTIK FITUR BUNYI KETUKAN BUAH KELAPA BERDASARKAN POWER-NORMALIZED CEPSTRAL COEFFICIENTS (PNCC) *Muhlis Ahmad Abdillah*
	14.14 – 14.21	Question and Answer Panel 2
Panel 3		
9	14.21 – 14.28	Optimizing Viscosity Measurement: An Automated Solution With YOLOv3 *Dinda Salsabiila Syara Putri Anugrah*
10	14.28 – 14.35	A DEEP LEARNING APPROACH FOR DETECTING PLASTIC WASTE UNDERWATER *Pridana Fadhilah Akbar*
11	14.35 – 14.42	SEGMENTASI DAN KLASIFIKASI KERUSAKAN JALAN MENGGUNAKAN METODE OBJECT-BASED IMAGE-ANALYSIS (OBIA) PADA CITRA UDARA *Rania Virda Sukmaningsih*
12	14.42 – 14.49	Implementation of Gabella Method and Random Forest for Ground Clutter Detection in Padang Weather Radar Data *Wildan Nurrahman*
	14.49 – 14.56	Question and Answer Panel 3
Panel 4		
13	14.56 – 15.03	Deteksi Objek Bayangan Pada Video Perjalanan Kendaraan Otonom Menggunakan Faster R-Cnn dengan Arsitektur ResNet-50 *Deeva Nabila*
14	15.10 – 15.17	Rice Sample Vaporization Method on Meter Testing Resistive Water Content Based On Ultrasonic Mist

No	Time (Western Indonesia Time GMT+7)	Title and Author
		Irawati dewi syahwir
15	15.17 – 15.24	PEMANFAATAN ARDUINO PADA SISTEM KONTROL OTOMATIS BERTENAGA SURYA *Sabila Fiqra Izzani*
	15.12 – 15.22	Gamma Spectrometer Callibration of Liquid Standard Sources of Mix Ba133, Cs137 and Co60 Toward the Measurement of Radionuclides in Medicine *Siska Febriana*
	15.22 - 15.29	Question and Answer Panel 4
16	15.30 – 15.35	Pengumuman presenter dan pemakalah terbaik
17	15.35 – 15.45	Closing of The Parallel Session

PARALLEL SESSION

The 12th International Physics Seminar 2023

Saturday, June 24th, 2023

Room : **8**
Moderator : **Haris Suhendar, M.Sc**
Operator : **Asidiq Saputra**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room_8**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	Revealing the Rock Heterogeneity in Sebau, Lombok Island by Applying Morphological and Elemental Composition Analysis *Febty Febriani*
2	13.17 – 13.24	The Fourth-Order KN Potential Matrix-Element in 3D Basis *Aditiya Nugraha*
3	13.24 – 13.31	Vulnerability in the Java northern regions in association with earthquake sources of tectonic origin *Muhammad Nurul Fahmi*
4	13.31 – 13.39	Wave-Field Interpretation of Quantum Mechanics *Bachtiar Rifai*
	13.39 - 13.46	Question and Answer of Panel 1
		Panel 2
5	13.46 – 13.53	PENGUKURAN KECERLANGAN LANGIT MALAM DI TELESKOP OZT â€“ ALTS MENGGUNAKAN SKY QUALITY METER *Gabriella Maharani*
6	13.53-14.00	Coda wave attenuation in Northern Aceh, Indonesia from a single station measurement: preliminary results *Titi Anggono*

No	Time (Western Indonesia Time GMT+7)	Title and Author
7	14.00 – 14.07	Earthquake Hazard Analysis through Microtremor Measurement using HVSR Method to Determine Peak Ground Acceleration in Rejang Lebong *Brecya Isa Siburian*
8	14.07-14.14	Rain Variation on the West Coast of Sumatra in Each Phase of the Madden Jullian Oscillation from GPM Satellite Observations *Rahmat Ilham*
	14.14 – 14.21	Question and Answer Panel 2
Panel 3		
9	14.21 – 14.28	Land Cover Change and Sustainable Development in Urban Area, Ciputat, South Tangerang *Nurrahmah Eka Nugraheni*
10	14.28 – 14.35	Analysis Vertical Seismic Deformation of Palu Earthquake 2018 Using Global Navigation Satellite System Data *Nurdin*
11	14.35 – 14.42	River Environmental Assessment using Physicochemical Properties of Sediment and Pollution Indices: A Case Study of Citarik River in Sangiang-Padamukti Village *Dini Fitriani*
12	14.42 – 14.49	Preliminary analysis of crustal anisotropy in the southernmost part of Simeulue Island *Syuhada*
	14.49 – 14.56	Question and Answer Panel 3
Panel 4		
13	14.56 – 15.03	An Improved Cloud Detection Method for High-Resolution Satellite Imagery Using U-Net Algorithms *Kurnia Ulfa*
14	15.10 – 15.17	Analisis Efisiensi Kinerja Turbin Angin Savonius Tipe-U Sumbu Horizontal Pada Kecepatan Angin Rendah *Aulia Wulandari*
15	15.17 – 15.24	Integration of Electrical Resistivity Tomography (ERT) and Induced Polarization (IP) Methods to Observe Seawater Intrusion in Sungai Nipah Village, Mempawah Regency *Muhardi*

No	Time (Western Indonesia Time GMT+7)	Title and Author
16	15.12 – 15.22	Anti-Elastase and Anti-Tyrosinase Activities from The Fruits Extract from Garcinia tetandra Pierre *Neneng Siti Silfi Ambarwati*
	15.22 - 15.29	Question and Answer Panel 4
17	15.30 – 15.35	Pengumuman presenter dan pemakalah terbaik
18	15.35 – 15.45	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **9**
Moderator : **Dwi Susanti, M.Pd**
Operator : **M. Fajri Zeta**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room9**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	BAHAN AJAR HUKUM GERAK NEWTON STRATEGI PEER INSTRUCTION BERBANTU NEARPOD *Firda Tazkia Salsabila*
2	13.17 – 13.24	Analysis of Teachers and Prospective Physics Teachers' Difficulties in Implementing Problem Based Learning Model to Improve Students' 4C Skills *Nurhayati*
3	13.24 – 13.31	Pengembangan Modul Praktikum Fisika Modern Berbantuan Video Praktikum Dengan Tahapan Melatih HOTS Mahasiswa Pendidikan Fisika *Listia Wati*
4	13.31 – 13.39	Learning Electric Current Circuits Using Augmented Reality to Improve Science Process Skills in High School Students *Rudi Haryadi*
	13.39 - 13.46	Question and Answer of Panel 1
		Panel 2
5	13.46 – 13.53	Designing of Virtual Lab on Elasticity *dina rahmi darman*
6	13.53 – 14.00	Physics Laboratory with Smartphone: Sound and Light *Eddy Yusuf*
7	14.00 – 14.07	PENGEMBANGAN APLIKASI ANDROID BERBASIS MODEL PROBLEM

No	Time (Western Indonesia Time GMT+7)	Title and Author
		BASED LEARNING PADA MATERI ELASTISITAS *Sharfina Adelia Widiantoro*
8	14.07-14.14	Improving High School Students' Conceptual Knowledge Using Contextual E-Module on Optical Devices Material *Rika Aprianti*
	14.14 – 14.21	Question and Answer Panel 2
		Panel 3
9	14.21 – 14.28	Development of STEM-Based Physics E-Module With Self-Regulated Learning to Train Students' Creative Thinking Skills *Dwi Ayu Lestari*
10	14.28 – 14.35	Improving High School Students\' Physics Learning Outcomes Using Mind Maps *Fahruroji Saputra*
11	14.35 – 14.42	PENGEMBANGAN MODUL DIGITAL INTERAKTIF BERBASIS PROBLEM BASED LEARNING PADA MATERI PEMANASAN GLOBAL UNTUK SISWA SMA *Naufal Hibatullah*
12	14.42 – 14.49	MODUL DIGITAL INTERAKTIF DENGAN MODEL DISCOVERY LEARNING PADA MATERI PENGUKURAN *khairatunnisa*
	14.49 – 14.56	Question and Answer Panel 3
		Panel 4
13	14.56 – 15.03	Assessing the High School Studentsâ€™ Conceptual Understanding of Transverse and Stationary Waves in Malang, Indonesia *Fatah Kurniawan*
14	15.10 – 15.17	Development of STEM-PjBL (Project-Based Learning) Student Worksheet for Physics on Renewable Energy Topic *Firman Prastiawan*
15	15.17 – 15.24	Research Trend of Dynamic Fluid in Learning: A Bibliometric Analysis *Misbah*
16	15.24 – 15.31	Analysis of Creative Thinking Skill Instrument Test (CreaTSIT) on Renewable Energy Topic for High School Student Using Rasch Model

No	Time (Western Indonesia Time GMT+7)	Title and Author
		Julia Maysarah Rosha
17	15.31 – 15.38	DIGITAL MODUL KONSEP ENERGI TERBARUKAN BERBASIS MICROSOFT SWAY *Christi Umita Meyputri*
	15.38 – 15.45	Question and Answer Panel 4
18	15.45 – 15.50	Pengumuman presenter dan pemakalah terbaik
19	15.50 – 16.00	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **10**
Moderator : **Fauzi Bakri, M.Pd**
Operator : **Wulandari**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room_10**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	INTERACTIVE DIGITAL MODUL PHYSICS (IDMP) BERBASIS INQUIRY PADA KONSEP ENERGI ALTERNATIF *Al Kautsar Zain*
2	13.17 – 13.24	Profile of Elementary School Teacher Scientific Argumentation Using Toulmin's Argumentation Pattern (TAP) on Waterworthy Science Materials *Wulan anna*
3	13.24 – 13.31	PENGEMBANGAN E-MODUL INTERAKTIF PADA MATERI GELOMBANG BUNYI BERBASIS PROBLEM BASED LEARNING *Salsabila Khairun Nisa*
4	13.31 – 13.39	PENGEMBANGAN E-MODUL INTERAKTIF BERBASIS DISCOVERY LEARNING PADA MATERI FLUIDA STATIS *Anna Hafsah*
	13.39 - 13.46	Question and Answer of Panel 1
		Panel 2
5	13.46 – 13.53	ANALYSIS OF THE UTILIZATION OF THE LEARNING MANAGEMENT SYSTEM (LMS) AS A LEARNING MEDIA IN PHYSICS EDUCATION DEPARTMENT *Elmi Mahzum*
6	13.53 – 14.00	Rancang Bangun Alat Peraga Katup Tesla Pada Materi Fluida *Kukuh Kurniawan*

No	Time (Western Indonesia Time GMT+7)	Title and Author
7	14.00 – 14.07	Modul Digital Practicum of Physics (DIPROPHY): Media Pembelajaran Multi Representasi Menggunakan Sway *Arif Satrio Pamungkas*
8	14.07-14.14	IDENTIFIKASI TINGKAT PEMAHAMAN KONSEP SISWA PADA MATERI GELOMBANG MENGGUNAKAN FIVE-TIER DIAGNOSTIC TEST ONLINE *Diana Mellyana A. Riyanto*
	14.14 – 14.21	Question and Answer Panel 2
Panel 3		
9	14.21 – 14.28	DEVELOPMENT OF HOTS MEASURING INSTRUMENT IN MOTION TOPIC USING THE TESTLET MODEL *Haratua Tiur Maria Silitonga*
10	14.28 – 14.35	Analisis Miskonsepsi Siswa SMA pada Konsep Fluida *Yuli Eri Susanti*
11	14.35 – 14.42	Development of Physics Worksheet based on STEM integrating Engineering Design Process (EDP) through Guided Inquiry Model to Improve Studentsâ€™ Critical Thinking *Fitria Herliana*
12	14.42 – 14.49	ANALISIS SARANA PRASARANA DAN PEMANFAATAN LABORATORIUM FISIKA DI BEBERAPA SMA/MA KABUPATEN LANGKAT *Tia Damayanti*
	14.49 – 14.56	Question and Answer Panel 3
Panel 4		
13	14.56 – 15.03	VIDEO ANIMASI ELASTISITAS DAN HUKUM HOOKE (VANTASE) BERBASIS PROJECT BASED LEARNING *Jihan Kusuma Wardani*
14	15.10 – 15.17	Development of an Assessment Instrument for Critical Thinking Skills in Physics: A Systematic Literature Review *Yoga Budi Bhakti*
15	15.17 – 15.24	Development of HOTS-Based Assessment Instruments in Calculating Building Structures Moment for Vocational High Schools (VHS) *Andrea Iswin Putri*

No	Time (Western Indonesia Time GMT+7)	Title and Author
16	15.24 – 15.31	PENGEMBANGAN MODUL AJAR BERBASIS HYPERCONTENT UNTUK MENINGKATKAN KEMAMPUAN BERPIKIR KREATIF SISWA SMA KELAS XI *Khairul Bariyyah*
17	15.31 – 15.38	INTERAKTIF DIGITAL MODUL BERBASIS STEM - PROBLEM BASED LEARNING (PBL) PADA MATERI ENERGI TERBARUKAN UNTUK SISWA SMA *Citra Indah Permata*
	15.38 – 15.45	Question and Answer Panel 4
18	15.45 – 15.50	Pengumuman presenter dan pemakalah terbaik
19	15.50 – 16.00	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **11**
Moderator : **Lari A Sanjaya, M.Pd**
Operator : **Nurdin Akbar, S.Pd.**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room_11**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
Panel 1		
1	13.10 – 13.17	THE SNAKE AND LADDER GAME AS A JOYFUL PRACTICING MEDIA *Joel Ongko Halim*
2	13.17 – 13.24	The implement of Project-based learning in Physics teachers *MARIANI BINTI TAIN*
3	13.24 – 13.31	PENERAPAN TPACK DALAM E-MODUL FISIKA SMA PADA KONSEP GELOMBANG *Widda Taslimah Alfani*
4	13.31 – 13.39	Modul Digital Interaktif berbasis Inkuiri Terbimbing pada Materi Pengukuran *Helmalia Triana*
	13.39 - 13.46	Question and Answer of Panel 1
Panel 2		
5	13.46 – 13.53	Perbandingan Hasil Belajar Fisika Siswa Sma Yang Menggunakan Model Two Stay Two Stray Dengan Model Jigsaw *Indah Mawati Giawa*
6	13.53 – 14.00	PENGEMBANGAN VIDEO PEMBELAJARAN FISIKA YANG MENGIMPLEMENTASIKAN TPACK PADA MATERI KINEMATIKA *Nurmalia Fahrunnisa*
7	14.00 – 14.07	IDENTIFIKASI TINGKAT PEMAHAMAN KONSEP SISWA PADA MATERI GELOMBANG MENGGUNAKAN FIVE-TIER DIAGNOSTIC TEST ONLINE

No	Time (Western Indonesia Time GMT+7)	Title and Author
		Defa Nurcahyani
8	14.07-14.14	PENGEMBANGAN PHYSICS MOBILE LEARNING BERBASIS ANDROID MENGGUNAKAN MODEL CREATIVE PROBLEM SOLVING PADA MATERI TEORI KINETIK GAS *Sifa Nur Safitri*
	14.14 – 14.21	Question and Answer Panel 2
		Panel 3
9	14.21 – 14.28	Pengembangan Media Pembelajaran Berbasis Website Menggunakan Google Sites Pada Materi Usaha Dan Energi Kelas X SMA *Sabna Tamara Dika*
10	14.28 – 14.35	Spherical Video pada Konsep Pemanasan Global untuk Meningkatkan Scientific Inquiry Literacy Siswa *Khofifah Maulida*
11	14.35 – 14.42	PENGEMBANGAN E-LEARNING BERBASIS PBL BERBANTUAN GOOGLE SITES PADA KONSEP PEMANASAN GLOBAL UNTUK MENINGKATKAN SCIENTIFIC INQUIRY LITERACY SISWA *Amalya Latudarra*
12	14.42 – 14.49	Research Trend of the Project Based Learning with Game Technique Implementation in Physics Learning Through Bibliometric Analysis in 2017-2022 *Sri Ambar Wulan*
	14.49 – 14.56	Question and Answer Panel 3
		Panel 4
13	14.56 – 15.03	PENERAPAN MODEL PEMBELAJARAN PROBLEM BASED LEARNING (PBL) UNTUK MENINGKATKAN HASIL BELAJAR FISIKA SISWA *Rini Siti Suleha Nainggolan*
14	15.10 – 15.17	Improving Process Skills of Senior High School Students Using Scientific Group Inquiry Learning Model *Nisfullail Indah Susilowati*
15	15.17 – 15.24	Reconstruction Of Digital Teaching Materials With Socio-Scientific Issues (SSI) Context On Newton's Gravity–Tidal Flood Content *Asep Saefullah*
16	15.24 – 15.31	Bibliometric Analysis of Technological Pedagogical Content Knowledge (TPACK) Development in Science Learning *Misbah*

No	Time (Western Indonesia Time GMT+7)	Title and Author
	15.31 – 15.38	Question and Answer Panel 4
17	15.45 – 15.50	Pengumuman presenter dan pemakalah terbaik
18	15.50 – 16.00	Closing of The Parallel Session

PARALLEL SESSION

The 12th International Physics Seminar 2023

Saturday, June 24th, 2023

Room	**: 12**
Moderator	**: Dewi Mulyati, M.Pd, M.Si**
Operator	**: Muhammad Fajrin, S.T.**
Zoom meeting id	**: 856 5091 3799**
Passcode	**: snf2023**
Link for zoom meeting	**: bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom	**: Name_IDPaper**
Link for uploading ppt	**: bit.ly/ppt_room_12**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
		Panel 1
1	13.10 – 13.17	DETERMINATION OF MOMENTUM OF OBJECTS AFTER EXPERIENCED REFLECTION IN FREE FALL USING INFRARED AND VIBRATION SENSORS *Lazuardi Umar*
2	13.17 – 13.24	LEMBAR KERJA PESERTA DIDIK MATERI MOMENTUM DAN IMPULS BERBASIS MODEL PEMBELAJARAN DILEMA-STEAM *Muhammad Aulia Rachman*
3	13.24 – 13.31	LKPD BERBASIS MODEL PEMBELAJARAN CHALLENGE BASED LEARNING TERINTEGRASI STEM PADA MATERI PEMANASAN GLOBAL *Aimena Salma Khumaira*
4	13.31 – 13.39	MODUL DIGITAL FISIKA BERBASIS SCIENCE TECHNOLOGY ENGINEERING MATHEMATICS (STEM) BERBANTUAN WEBSITE 2 APK BUILDER PADA MATERI MOMENTUM DAN IMPULS *Nur Fadhilah Syahidah*
	13.39 - 13.46	Question and Answer of Panel 1
		Panel 2
5	13.46 – 13.53	Contextual-based Learning Video and The Flipped Classroom's Impact on Distance Education in Covid-19 *Nur Azizah Putri*

No	Time (Western Indonesia Time GMT+7)	Title and Author
6	13.53 – 14.00	Educational Tourism Program Based on Sustainable Development to Improve Student Concern for The Environment *Edith Allanas*
7	14.00 – 14.07	RANCANGAN GAME EDUKASI SEBAGAI MEDIA PEMBELAJARAN ALTERNATIF FISIKA PADA MATERI GERAK PARABOLA *Alfangni Vembrian Maha Putra*
8	14.07-14.14	Integration of Multirepresentasion-Based Student Worksheets in Straight Motion Learning: An Alternative for improving students' conceptual understanding *Revnika Faizah*
	14.14 – 14.21	Question and Answer Panel 2
Panel 3		
9	14.21 – 14.28	INTERACTIVE DIGITAL MODULE OF GLOBAL WARMING (IDMOGW) BERBASIS STEM-PROJECT BASED LEARNING UNTUK SISWA SMA *Antika*
10	14.28 – 14.35	Perangkat Computer Based Test Fisika untuk Memetakan Keterampilan Berpikir Tingkat Tinggi Materi Mekanika *Vidya Kusumah Wardani*
11	14.35 – 14.42	Exploration of Preservice Physics Teacher Identity using SSI Survey and FCI Test *ASTRINI DEWI KUSUMAWATI*
12	14.42 – 14.49	INTEGRATION MERDEKA BELAJAR CONCEPT IN DEVELOPMENT STEMC MODULE FOR ELECTROCHEMICAL AND RENEWABLE ENERGY AT VOCATIONAL SCHOOL SMK-SMTI BANDA ACEH *Irwandi*
	14.49 – 14.56	Question and Answer Panel 3
Panel 4		
13	14.56 – 15.03	ANALISIS SARANA PRASARANA DAN PEMANFAATAN LABORATORIUM FISIKA DI BEBERAPA SMA/MA KABUPATEN LANGKAT *Tia Damayanti*
	15.10 – 15.17	PENGEMBANGAN E-LKPD BERBANTUAN LIVEWORKSHEETS DENGAN MODEL POE (PREDICT-OBSERVE-EXPLAIN) PADA MATERI TEORI KINETIK GAS UNTUK MELATIH KETERAMPILAN BERPIKIR TINGKAT TINGGI *Sarah Febriyana Putri*

No	Time (Western Indonesia Time GMT+7)	Title and Author
	15.17 – 15.24	DESAIN LKPD PRAKTIKUM EFEK DOPPLER BERBASIS SMARTPHONE *Aulia Shafira*
	15.24 – 15.31	MODUL PRAKTIKUM EFEK HALL BERBANTUAN VIDEO: MELATIH HOTS MAHASISWA *Andesnia Qonita Luthfiya*
	15.31 – 15.38	Students' Self-Regulated Learning Profile and Preference for Digital Media in Physics Learning *Haura Fauziyyah Halilah*
14	15.40 – 15.45	Pengumuman presenter dan pemakalah terbaik
15	15.45 – 15.50	Closing of The Parallel Session

PARALLEL SESSION
The 12th International Physics Seminar 2023
Saturday, June 24th, 2023

Room : **13**
Moderator : **Dr. Esmar Budi, M.T**
Operator : **Iffah Hamidah, S.Pd.**
Zoom meeting id : **856 5091 3799**
Passcode : **snf2023**
Link for zoom meeting : **bit.ly/Seminar_Fisika_IPS**
Format Display Name Zoom : **Name_IDPaper**
Link for uploading ppt : **bit.ly/ppt_room13**

No	Time (Western Indonesia Time GMT+7)	Title and Author
	13.00 – 13.10	Opening of The Parallel Session
Panel 1		
1	13.10 – 13.17	Laser Application Performance in Power Transmission Due to Moisture and Dust effects *imam arif rahardjo*
2	13.17 – 13.24	Mapping of Chemical Elements in Prigi Beach Sand as Pollution Levels Indicator *Siti Zulaikah*
3	13.24 – 13.31	Design of S-Band Accelerator Structure Utilizing 2,45 GHz Magnetron *Kevin Rezon, S.T.*
4	13.31 – 13.39	Modeling of Energy Consumption Intensity Based on Population and Economic Growth in Elementary School Buildings in DKI Jakarta Province Using Dynamic Modeling *imam arif rahardjo*
	13.39 - 13.46	Question and Answer of Panel 1
Panel 2		
5	13.46 – 13.53	Studi Penyimpanan Energi Listrik Yang Dihasilkan Oleh Alat Pemanen Energi Akustik (Acoustic Energy Harvester) Ke Dalam Superkapasitor *BAGAS WAHYU WIBOWO*
6	13.53-14.00	PROFIL SUSEPTIBILITAS MAGNETIK TANAH DAN SEDIMEN DARI DANAU SINGKARAK

No	Time (Western Indonesia Time GMT+7)	Title and Author
		Kartika Hajar Kirana
7	14.00 – 14.07	HUBUNGAN ANTARA KECEPATAN ANGIN DAN TEGANGAN KELUARAN DARI GENERATOR DC 12V PADA PEMBANGKIT LISTRIK TENAGA BAYU DI DESA WISATA GLANGGANG PAKISAJI MALANG *Yunani Dewi Rahman*
8	14.07-14.14	CONDUCTIVITY PATTERN AND SALINITY CHARACTERISTICS OF ALLUVIAL MATERIAL (CASE STUDY: AGRICULTURAL LAND AREA IN PATIMBAN VILLAGE, PUSAKA NAGARA SUB-DISTRICT, SUBANG REGENCY, WEST JAVA) *Dr. Eleonora Agustine, MT*
	14.14 – 14.21	Question and Answer Panel 2
Panel 3		
9	14.21 – 14.28	Analysis of Faculty of Electrical Engineering and Informatics Building Energy Use Intensity in Pardubice, Czech *imam arif rahardjo*
10	14.28 – 14.35	Karakterisasi Sensor Piezoelektrik LDT0- 028k Untuk Perancangan Sistem Pengukuran Getaran Pada Mesin *Ratna Komala Dewi*
11	14.35 – 14.42	A Measurement and Analysis of the Variation of Albedo and Surface Temperature at Pondok Betung, South Tangerang *Muhammad Arif*
12	14.42 – 14.49	APLIKASI KALKULATOR GIZI UNTUK MENINGKATKAN DAYA SAING DAN MUTU USAHA BOGA KATERING WILAYAH KECAMATAN DEPOK *Diena*
	14.49 – 14.56	Question and Answer Panel 3
Panel 4		
13	14.56 – 15.03	Arduino Uno-Based Electronic Control Unit Module Remapping to Achieve Optimal Engine Rotation Speed On Spark Ignition 2-Stroke Direct Injection Engine *Handoyo Abri Prakoso*
14	15.03 – 15.10	Performance Evaluation of Airflow Sensor for Mechanical Ventilator: Engineering Experience During Covid-19 Pandemic *Pratondo Busono*
15	15.10 – 15.17	Effect Of Quercetin Addition On Chitosan Film Composite Of Cellulose Microcrystals From Coconut Fibers (Cocos Nucifera) *Yusmaniar*

No	Time (Western Indonesia Time GMT+7)	Title and Author
16	15.17 – 15.24	Development of Mobile Biosensor Reader for Wearable Sweat Glucose Biosensor Application *Pratondo Busono*
	15.24 – 15.31	Question and Answer Panel 4
17	15.31 – 15.36	Pengumuman presenter dan pemakalah terbaik
18	15.37 – 15.50	Closing of The Parallel Session

Conference Technical Instructions and Rules

1. International Physics Seminar 2023 will held on 24 June 2023.
2. The activity will start at 07.00 Western Indonesian Time which is divided into two sessions (plenary and parallel sessions).
3. Participants can mute and unmute audio if needed, as well as turn on video during the activity.
4. Participants who want to ask questions to thekeynote speakers in the plenary session can write questions via the chat room.
5. The plenary session attendance link will be shared via chat column towards the end of the plenary session
6. The attendance link to get e-certificate will be sent via chat column during parallel session.
7. The certificate will be sent to the participant's email based on the name entered in the presence link during the parallel session.
8. During break time, participants are allowed to leave the zoom meeting room.
9. After break time, participants enter the zoom link according to the parallel session schedule in this guidebook.
10. Participants are requested to enter the parallel session room 15 minutes earlier.
11. Non-presenting participants can enter to parallel session according to the field of interest.
12. The committee has the right to disable participants from the conference sessions if they violate the rules that have been determined.

Parallel Session Guideline

1. Parallel session will be led by a moderator in each room.
2. Each presenter is given the opportunity to present his paper directly (live) in 7 minutemaximum time.
3. The questions and answers discussion is conducted on a panel basis, after 3 presentershave presented their papers.
4. Parallel sessions will be attended by field speakers and non-presenters.
5. Presenters fill in the presence link after presentation at the parallel session to obtain acertificate that will be sent automatically via email.

IPS Carved Competition (IPS CarCom) 2023

"IPS UNJ Bereputasi Untuk Negeri"

1. Apa Itu IPS CarCom

IPS CarCom merupakan ajang Kompetisi yang diselenggarakan untuk mencari Presenter terbaik dan Paper terbaik. Ada 2 lomba yang di kompetisikan yaitu presenter terbaik setiap ruangan (Scope) dan Paper atau artikel terbaik setiap ruangan (Scope). Adapun Kriteria presenter terbaik dalam IPS 2023 sebagai berikut:

1. Sistematika Presentasi (30%)
2. Tayangan PPT (30%)
3. Etika Akademik (20%)
4. Kedalaman Pemahaman (20%)

Kriteria paper terbaik sebagai berikut:

1. Orisinalitas ide dan gagasan dari hasil penelitian
2. Unsur kreativitas dan inovasi
3. Memberi solusi (problem solving) atas permasalahan yang dihadapi saat ini dalam bidang fisika dan Pendidikan fisika
4. Aplikatif dan implementatif

2. Hadiah IPS CarCom

A. Pemenang Presenter terbaik setiap ruangan (Scope) akan mendapatkan hadiah berupa:
Sertifikat penghargaan sebagai Presenter terbaik 1 + Cendera mata

B. Pemenang Paper terbaik setiap ruangan (Scope) akan mendapatkan hadiah berupa:
Sertifikat penghargaan sebagai Paper terbaik + Cendera mata