DEPARTMENT OF GEOPHYSICS

STAFF HANDBOOK

FACULTY OF MATHEMATICS AND
NATURAL SCIENCES
UNIVERSITAS PADJADJARAN
2023

http://geophys.unpad.ac.id

Staff Handbook

Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Rules for the obligation to carry out lectures

The lecture periode in the Department of Geophysics, Universitas Padjadjaran, is defined by the academic calendar issued by the Rectorate of the Universitas Padjadjaran. The calendar is annually announced in order to determine the time periods of student enrolment, conducting lectures as well as the assessment period. The academic staff of the university must obey the determined time schedule.

A lecturer must carry out the maximum of 16 and the minimum of 14 sessions, including the assessment sessions. It is possible to divide a session into several sessions in a week, in this case the number of weekly sessions are counted as one session. A semester credit is equivalent to 50 minutes of class meeting. A lecturer staff must arrange his/her meeting time accordingly, regarding the number of semester credits of the conducted lecture. The chief of the study program plots the semester schedule, along with the designation of the lecturing room, regarding the time frame of the semesterly credit of a lecture. Violation of the determined time frame is not encouraged, since it may disturb other lecturing activities. In case it is necessary to shift or move the lecture, an academic staff must register to the administration office. The administration staff will arrange a new schedule to ensure that the amendment of the lecture schedule does not collide with the other academic activities. Conducting lectures outside the determined working hours is not preferred. However, other activities, such as tutorials and consultations, are encouraged.

At the end of a semester, an academic staff is required to submit the evaluation result of the students that were officially attending his/her lecture. The lecture marks are submitted via the SIAT application, within 1 week after the final examination. The time frame to give the evaluation result of a lecture is determined by the university according to the issued academic calendar.

Rules on supervision process

It is obligatory for the student of the Geophysics Department to finalize his study through a final assignment research, i.e. the Tugas Akhir (TA). In order to perform the research a student must be supervised by at least one academic supervisor. A co-supervisor and/or a field-supervisor can be appointed if necessary. The Head of the Department together with the Chief of the Study Program assigns the academic supervisor, as well as the thesis examiners, according to the topic of the research, the expertise of the staff, and the academic activity loads. The letter of assignment will be issued by the Dean of the Faculty of Mathematics and Natural Sciences. The letter is effective within the running semester and may be prolonged if necessary.

Prior to the TA research activities, a student must perform a proposal seminar. In order to do that, the student must do consultations with the tentative supervisor. Every academic staff should allocate sufficient time for any student to do the consultation. The proposal is submitted to the administration of the study program in order to be listed in seminaries. The administration staff determines the seminar schedule at the beginning of the semester to give time for the student to effectively perform his/her research activities. Only after the seminar, the supervisor can be assigned.

After being assigned as a supervisor, it is obligatory for the academic staff to conduct the supervision activities. The supervised student must have sufficient consultation time with the supervisor, hence the academic supervisor must ensure the time availability. Failing to allocate time for supervision activities may cause the failure of the TA research and is highly not encouraged. All academic staff of the Geophysics Department must give great care on supervision of students and act as a good academic mentor and role model for the student.

In order to maintain the quality of the TA research, seminaries of the results in the group of research concentration must be performed. The

supervisor determines technically the implementation of the seminar. The aim of these seminaries is to exchange knowledge between group members and to assess the scientific conduct of the research. The process and result of the research is verified in these activities by the staff members having a related expertise to the designated topic. It is highly recommended that the examiners of the thesis attend the seminaries.

After finishing the TA research, a student must submit the report of his/her research in the form of a bachelor thesis. A supervisor must ensure that the thesis is correctly written and no bad scientific conduct exists. There are three examiners that must be assigned in pursuance of the thesis, one examiner for the comprehensive test, and two examiners for the assessment of the thesis content.

A comprehensive test examiner has a duty to give an exam to the student on a determined topic to ensure that the student is having adequate knowledge as a geophysic graduate. Prior to the test a student may ask to do consultation on the subject and limits of the test. The assigned staff must give an opportunity to the student to do the test preparation. The test is performed at once, and the mark of the comprehensive test will be used as the consideration for the student to do his final assessment. The thesis examiners have a duty to make a review of the thesis. The review will be used as the basis for the correction and improvement of the thesis content. Any alteration of the thesis, must be approved by the supervisor. The thesis examiners will give marks on the thesis after revaluation of the thesis content in the final assessment.

The regulation on the leave of absence

The staff of the Department of Geophysics have rights to leave the office for vacation or other activities according to the state's regulations on the governmental officials, i.e. *Peraturan Pemerintah No. 17 2020* and *Peraturan BKN No. 24 2017*. In case that an academic staff intends to do

the leave a letter of permission must be obtained. The reason of the leave can be as follows,

1. Leave on illness
2. Maternal leave
3. Leave for vacation
4. Leave for family reunion
5. Other reasons according to the state's regulations.

The procedure to obtain the letter is as follows,

1. The academic staff submit a letter to ask permission to leave to the Head of Department. In the letter the purpose and background of the leave must be clearly stated. The Head of Department will evaluate the letter and make a decision according to the internal condition of the department. In some cases, the head of the department may arrange a dialog session with the staff.
2. After evaluation of the leave request, the Head of Department sends a letter to the dean to issue a permission letter. In some cases, the reason for the leave will be discussed with the dean before approval.
3. The dean sends the letter of permission to the rectorate of the university for further processing.
4. The final approval and permission will be given by the rectorate, and the corresponding ministries.

Principally, a staff should fulfill the determined working hours of the university. Nevertheless, some sort of tolerance could be applied considering personal and/or family needs. Notably, the tolerance should be used with care as long as the main duty and function of the staff is accomplished. In this case the staff should inform his/her whereabout to the administration.

The regulation on external assignments

An academic staff may have activities outside the main duties at the university. In case that the duty must be done in full time, such as the assignment to finish a specific degree of education (doctorate) or acting as an official in another governmental institution, a letter of assignment will be issued by the ministry of education. The procedure to obtain the letter must be based on the approval of the Head of Department, following the standard administrative procedure determined by the university.

In case of assignments to do research activities outside the department, an academic staff must inform the Head of Department prior to the activity. The permission letter can be issued by the faculty if needed. The permission is based on the recommendation from the Head of Department. The basic regulations on the government officials apply. All staff are encouraged to do research activities both inside or outside campus, hence, for these activities the administration must be kept as simple as possible. If the research must be performed abroad, the administrative procedure designated by the state must be followed. A staff member may consult the directorate of human resources of the university. In any case the activities must be informed to and approved by the Head of Department. As long as there is no administrative violation, the Head of Department has no right to restrict activities of the staff outside the working hours.

The performance of staff and its evaluation

The performance of the staff at the Department of Geophysics is monitored through the integrated academic system (SIAT). A staff must periodically report the output of academic activities, research activities, and the community service activities. The report is done digitally and the data is further used as the basis of the performance evaluation and incentive. The regulation of the incentive payment is described in the Rector's regulations for staff incentive (Peraturan Rektor Unpad No. 14

2022). The incentive is given for all aspects of the Tri Dharma Perguruan Tinggi activities, the administrative structural positions, and other additional assignments.

The incentive system of Universitas Padjadjaran is basically aimed at maintaining the prosperity and standard of living for the academic staff. This system must directly reflect the determining increase in the overall performance. Hence, it must be kept in mind to pursue academic activities that may give high impact to the university's excellence and reputation.

The standard of ethics and integrity

All staff members of the Department of Geophysics, Faculty of Mathematics and Natural Science, Universitas Padjadjaran must accept the determined standard of ethics of the university, according to the document issued by the Academic Senate of Universitas Padjadjaran (Peraturan Senat Akademik Unpad No. 5, 2017). The document determines rights and responsibilities of all academic staff at the university, along with the norms and good practices that the staff must adhere to.

To provide a transparent management system, the staff must maintain their integrity and avoid academic and society misconduct as much as possible. This is required in order to build a clean governance system in the university. The followings are some actions that should be avoided,

- Accepting goods or other means in order to allow student to get rewards in any kind
- Abandonment of lectures and/or other academic duties without any proper reasoning
- Being unfair in performing assessment of student works
- Violation of academic rules and ethics
- Realizing any plagiarism acts

It is also obligated to the staff to maintain a good academic atmosphere. In order to implement this, the staff should work professionally and avoid blended situations with personal life. A staff member should work on the assigned activities diligently and accurately. In performing academic activities, a staff should allow students to express their views and opinions without any personal bias, in the framework of academic freedom.

Staff members of the Geophysics Department, Faculty of Mathematics and Natural Sciences must acknowledge this staff handbook and use the document as the basis for their academic activities.

The Department of Geophysics

The Staff Member, Head,

(Materai)

Name: _____ Prof. Dr. Yudi Rosandi

STAFF
PORTFOLIO

THEORETICAL AND COMPUTATIONAL GEOPHYSICS

2023

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Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Prof. Dr. rer.nat Yudi Rosandi*		
Post	*Numerical Methods* *Geophysics Instrumentations*		
Academic career	*Academic staff* *Geophysics Dept.* *Academic staff* *Physics Dept.* *Dr. rer. nat. (Physics)*	*Universitas Padjadjaran* *Universitas Padjadjaran* *TU-Kaiserslautern*	*2015-now* *1998-2015* *2004-2008*
Employment	*Professor*	*Universitas Padjadjaran*	*1998-now*
Research and development projects over the last 5 years	*2023 Penerapan metode geofisika terpadu untuk sistem mitigasi bencana gerakan tanah berbantuan IoT dan Komputasi Performa Tinggi (Ristekdikti 270.000.000)* *2021 Penerapan Metode Machine Learning untuk Pengenalpolaan Sinyal Sensor Multivariabel Terdistribusi pada Identifikasi Potensi Bencana Alam Menggunakan Teknologi Komputasi Kinerja Tinggi (Ristekdikti 175.000.000)* *2021 Pemodelan Dinamika Gerakan Tanah dengan Parameterisasi Data Lapangan untuk Mitigasi Kebencanaan (Ristekdikti 57.500.000)*		

	2021 Analisis Teoritik Sifat Mekanik Nano-Kawat Akibat Perlakuan Regangan dan Kompresi Menggunakan Algoritma Komputasi Performa Tinggi (Ristekdikti 110.000.000) *2021 Monitoring Potensi Longsor Menggunakan Sistem Data Logging Getaran Tanah Terdistribusi (HIU 60.000.000)* *2021 Computational Analysis on Silicate Cosmic Dust Coagulation: Geophysical Study on Protoplanet Formation Processes (HIU 30.000.000)*	
Industry collaborations over the last 5 years	*none*	
Patents and proprietary rights	*Aplikasi SEISMO-LOG Berbasis WEB EC00202130816* *Object Oriented Molecular Dynamics Library 000179806* *Simulasi Online Metoda Partikel Untuk Infeksi Penyakit Menular 000197624*	*2021* *2020* *2020*
Important publications over the last 5 years	*Selected recent publications from a total of 60 publications.* *Alfaridzi, R., Nietiadi, M. L., Urbassek, H. M., & Rosandi, Y. (2023). The effect of enclosed water–ice pockets on porous silica cluster collisions. Icarus, 391, 115352–115358.* *Nietiadi, M. L., Rosandi, Y., Bringa, E. M., &*	

	Urbassek, H. M. (2022). Collisions between CO, CO_2, H_2O and Ar ice nanoparticles compared by molecular dynamics simulation. Scientific Reports, 12(1), 13858. *Nietiadi, M. L., Rosandi, Y., Bringa, E. M., & Urbassek, H. M. (2022). Peripheral Collisions of Ice-covered Silica Dust Grains. THE ASTROPHYSICAL JOURNAL, 925, 173.* *Rosandi, Y., Luu, H.-T., Urbassek, H. M., & Gunkelmann, N. (2020). Molecular dynamics simulations of the mechanical behavior of alumina coated aluminum nanowires under tension and compression. RSC Advances, 10(24), 14353–14359.* *Gunkelmann, N., Bringa, E. M., & Rosandi, Y. (2018). Molecular Dynamics Simulations of Aluminum Foams under Tension: Influence of Oxidation. The Journal of Physical Chemistry C, 122(45), 26243–26250.*		
Activities in specialist bodies over the last 5 years	*Organisation*	*Role*	*Period*
	None		

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Dr. Irwan Ary Dharmawan*		
Post	*Computational Geophysics*		
Academic career	*Initial academic appointment* *Doctorate (Physics)* *Master degree (Physics)* *Undergraduate degree (Physics)*	*Universitas Padjadjaran* *Institut Teknologi Bandung* *Institut Teknologi Bandung* *Universitas Padjadjaran*	 *1997* *2001-2006* *1997-2000* *1991-1996*
Employment	*Position*	*Employer*	*Period*
	Lecturer	*Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*1997-2014*
	Lecturer	*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*2014-now*
	Associate Professor	*Department of Geophysics, Faculty of Mathematics and*	*2023-now*

		Natural Sciences, Universitas Padjadjaran		
Research and development projects over the last 5 years	*Name of project or research focus*	*Period*	*Partners*	*Amount of financing*
	1. Multiscale Modeling dan Analisis Data Kebumian Berbasis Teknologi Komputasi Performa Tinggi, Role: Member			
	6. Multiscale Modeling dan Analisis Data Kebumian Berbasis Teknologi Komputasi Performa Tinggi, Role: Member	*2021-2023*		*Rp 300.000.000 from UNPAD scheme ALG*
Industry collaborations	*Project title* *Partners*			

over the last 5 years		
Patents and proprietary rights	*Title*	*Year*
	1. PAJABAT [software apps for digital rock physics properties estimation based on image processing] (EC00202236620)	*2021*
	2. INDRAJABUANA [software apps environment monitoring based on Remote Sensing and Google Earth Engine] (EC00202236620)	*2021*
	3. RANDPOR3D [software apps for developing random porous media based on image processing] (EC00202236620)	*2021*
	4. PRESITAS [software apps for two dimensional digital rock physics properties estimation based on machine learning techniques] (EC00202236620)	*2021*
	5. PRESITAS3D [software apps for three dimensional digital rock physics properties estimation based on machine learning techniques] (EC00202236620)	*2021*
	6. BENTALA AKSA [software apps for plant mapping in West Java based on Remote Sensing and Google Earth Engine] (EC00202236620)	*2021*
	7. MATA BDG [software apps for environment and Land Use Land Cover of Bandung city based on Remote Sensing and Google Earth Engine] (EC00202236620)	*2022*
	8. SMARTFRACT [software apps for generating two dimensional fracture media	*2022*

	based on image processing techniques] (EC00202236620)	
	9. SMARTFRACT2 [software apps for generating three dimensional fracture media based on image processing techniques] (EC00202236620)	*2022*
	10. MATA BDG [software apps for environment and Land Use Land Cover of Bandung city based on Remote Sensing and Google Earth Engine] (EC00202236620)	*2022*
	11. MATA JABAR[software apps for environment and Land Use Land Cover of West Java province based on Remote Sensing and Google Earth Engine] (EC00202236620)	*2022*
	12. ANTARU-ID [software apps for environment and Land Use Land Cover monitoring of new capital city in Kalimantan based on Remote Sensing and Google Earth Engine] (EC00202236620)	*2022*
	13. DYNAMIC LAND [software apps for environment and Land Use Land Cover monitoring of new capital city in Kalimantan based on Remote Sensing and Google Earth Engine] (EC00202236620)	*2023*
	14. CITARUM VIEW [software apps for environment and Land Use Land Cover monitoring of Citarum River based on Remote Sensing and Google Earth Engine] (EC00202236620)	*2023*
	15. PRESITAS-PE [software apps for three dimensional digital rock physics	*2023*

	permeability estimation based on machine learning techniques] (EC00202236620)	
Important publications over the last 5 years	*Selected recent publications from a total of approx. (31 publications):*	
	1. A study of transfer learning in digital rock properties measurement *MIK Haq, IN Yulita, IA Dharmawan* *Machine Learning: Science and Technology*	
	2. Remote sensing and cloud computing applications for mapping cereal foodstuffs agricultural land in East Kalimantan, Indonesia *RA Desenaldo, AM Azis, IL Anastasia, Y Sinaga, IA Dharmawan* *AIP Conference Proceedings 2858 (1)*	
	3. Machine learning prediction of tortuosity in digital rock *F Akmal, MCR Dzulizar, MF Rafli, F Az-Zahra, MIK Haq, IA Dharmawan* *Journal of Geoscience, Engineering, Environment, and Technology 8 (02-2), 06-122309, No. 1, p. 012001). IOP Publishing.*	
	4. Machine Learning Application of Two-Dimensional Fracture Properties Estimation *A Nurcahya, A Alexandra, SZ Zainuddin, F Az-Zahra, MIK Haq, ...* *Journal of Geoscience, Engineering, Environment, and Technology 8 (02-2), 01-05*	
	5. Application of high-resolution remote-sensing data for land use land cover mapping of university campus *IA Dharmawan, MAE Rahadianto, E Henry, C Endyana, M Aufaristama* *The Scientific World Journal 2021*	
	6. Numerical simulation of non-Newtonian fluid flows through fracture network	

	IA Dharmawan, RZ Ulhag, C Endyana, M Aufaristama IOP conference series: earth and environmental science 29 (1), 012030		
Activities in specialist bodies over the last 5 years	*Organisation*	*Role*	*Period*
	1. Physical Society of Indonesia	*Member*	*2020 - now*
	2. Himpunan Ahli Geofisika Indonesia (HAGI)	*Member*	*2018-now*
	3. Indonesian Mathematics Association (Indo-MS)	*Member*	*2018-now*

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Dr. Imran Hilman Mohammad, M.Si*		
Post	*Theoritical and Computational Geophysics*		
Academic career	*Initial academic appointment* *Doctorate (Geophysical Engineering)* *Master degree (Physics)* *Undergraduate degree (Physics)*	*Universitas Padjadjaran* *Institut Teknologi Bandung* *Institut Teknologi Bandung* *Institut Teknologi Bandung*	*2009* *2007-2012* *2005-2006* *2001-2004*
Employment	*Lecturer*	*Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*2009-2011*
	Senior Lecturer	*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*2011-2017*
	Assistant Professor	*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*2017-now*
Research and development projects over the last 5 years	*Name of project or research focus* *Period and any other information* *Partners, if applicable* *Amount of financing*		

Industry collaborations over the last 5 years	*Project title* *Partners*	
Patents and proprietary rights	*1. Computer program, LANDCLASS1.0 (EC00202370396)*	*2023*
Important publications over the last 5 years	*1. Land Suitability and Plant Types Based on Soil Electrical Properties and Remote Sensing:, Eleonora Agustine1, Nadhira Gunawan, Rifky Nauval, Muhammad Abdillah Budianto,Irwan Ary Dharmawan, Dini Fitriani, Kartika Hajar Kirana, Wahyu Srigutomo, Asep Harja,* ***Imran Hilman Mohammad,*** *Eddy Supriyana:, Jurnal Geologi dan Sumberdaya Mineral, Vol. 24, No. 2, Mei 2023, hal. 89-96, DOI: https://doi.org/10.33332/jgsm.geologi. v24i2.723, ISSN: 0853-9634, e-ISSN 2549-4759*	
	2. Distribution of Magnetic Properties in Sediments from Cimande River as Tracers of Anthropogenic Pollutants Dini Fitriani1, a), Rizky Ahmad Baraba1, Novia Chicilia1, Sinthia Anis Rofifah1, Tiara Ayu Meiliani1, Irfan Handi Muhammad1, Eleonora Agustine1, Kartika Hajar Kirana1, Eddy Supriyana1, ***Imran Hilman Mohammad1*** *and Gerald Tamuntuan2, AIP Conference Proceedings 2694, 020003 (2023) Volume 2694, Issue 1* *26 April 2023, https://doi.org/10.1063/5.0119978, ISBN: 978-0-7354-4461-4, ISSN 0094243X, 15517616, Publisher American Institute of Physics*	
	3. Karakteristik Kandungan Volumetrik Air dan Konduktivitas Air Pori Tanah Lahan Pertanian dan Bukan Pertanian Desa Ciwaruga Lembang Bandung Barat:, ***Imran Hilman Mohammad****, Eleonora Agustine:, Jurnal Material dan Energi Indonesia, Vol. 12, No. 02 (2022) 70 – 78, e-ISSN: 2579-6054, p-ISS: 2087-748X, Departemen Fisika*	

	FMIPA Universitas Padjadjaran, Terpublikasikan: 14-02-2023
	4. Study on the Diffusion Rate of the Charge Carrier Transport in Regio-Random P3HT:, Nowo Riveli, Budi Adiperdana, Lusi Safriani, Bambang Joko Suroto, Atiek Rostika Noviyanti, ***Imran Hilman Mohammad****, Iman Rahayu, M. Manawan, Togar Saragi and Risdiana:, Materials Science Forum, doi:10.4028/www.scientific.net/MSF.966.471, ISSN: 1662-9752, Vol. 966, pp 471-475, © 2019 Trans Tech Publications Ltd, Switzerland*
	5. Community behavior analysis of electricity consumption in rural areas (a case study of Batang Regency): A D Rarasati, M D Ardian, E A Setiawan, ***I H Mohammad****:, The 1st Siliwangi International Conference on Innovation in Research 2018 (SICIR) 14 August 2018, Bandung, Indonesia, IOP Conf. Series: Materials Science and Engineering, Vol. 550, (2019), 012002, IOP Publishing, doi:10.1088/1757-899X/550/1/012002, ISSN: 1757-899X*
	6. Investigasi Gerakan Tanah dan Akuifer Menggunakan Metode Electrical Resistivity Tomography di Sekitar Lereng BGG Jatinangor: Budy Santoso, Setianto, ***Imran Hilman Mohammad,*** *Risdiana: JIIF (Jurnal Ilmu dan Inovasi Fisika), Vol. 02, No. 01 (2018) 45 – 52 © Departemen Fisika FMIPA Universitas Padjadjaran, P-ISSN: 25490516, E-ISSN: 25497014*
	7. Pore structure characterization of concrete mixtures with different aggregates using digital image processing and analysis:, F D E Latief, ***I H Mohammad****, A D Rarasati and N Handika:, 5th International Seminar on Mathematics, Science, and Computer Science Education (MSCEIS 2018), 27 October 2018, Bandung, Indonesia, Journal of Physics: Conference Series, Vol. 1280, (2019), 022078, IOP*

	Publishing, doi:10.1088/1742-6596/1280/2/022078:, ISSN: 1742-6596
	*8. Mitigation of Land Movement Using Self Potential Method In Ling-Anjung Region, Sumedang Regency:, B Santoso, Setianto, M U Hasanah, B Wijatmoko, E Supriyana, **I H Mohammad**:, EKSAKTA: Berkala Ilmiah Bidang MIPA, DOI : 10.24036/eksakta/vol19-iss02/141, Vol. 19, Issue 2/30, October 2018, Fakultas Matematika Dan Ilmu Pengetahuan Alam (FMIPA), Universitas Negeri Padang, E-ISSN: 2549-7464, P-ISSN: 1411-3724*
	*9. Digital 3D Microstructure Analysis of Concrete using X-Ray Micro Computed Tomography SkyScan 1173: A Preliminary Study:, F D E Latief, **I H Mohammad**, A D Rarasati:, International Conference of Applied Science and Technology for Infrastructure Engineering 5 August 2017, Surabaya, East Java, Indonesia, IOP Publishing, IOP Conf. Series: Materials Science and Engineering, Vol. 267, (2017), 012020, doi:10.1088/1757-899X/267/1/012020:, ISSN: 1757-899X*
	*10. Karakteristik Kandungan Volumetrik Air dan Konduktivitas Air Pori Tanah Lahan Pertanian dan Bukan Pertanian Desa Ciwaruga Lembang Bandung Barat:, **Imran Hilman Mohammad**, Eleonora Agustine:, Jurnal Material dan Energi Indonesia, Vol. 12, No. 02 (2017) 70 – 78, e-ISSN: 2579-6054, p-ISS: 2087-748X, Departemen Fisika FMIPA Universitas Padjadjaran, Terpublikasikan: 14-02-2023*
	*11. The Evaluation of Air Transportation Infrastructure Performance in Indonesian Capital Province: Ayomi D. Rarasati*1), **Imran H. Mohammad**2), Yusuf Latief3) WARTA ARDHIA, Jurnal Perhubungan Udara, VOL 42, NO 4 (2016)ISSN: 0215-9066 (print) ISSN: 2528-4045 (online)*

	12. Interpretation of 1D Vector Controled-Source Audio-Magnetotelluric (CSAMT) Data Using Full Solution Modeling. Authors, ***Imran Hilman Mohammad****, Wahyu Srigutomo, Doddy Sutarno, Prihadi Sumintadiredja Publication date 2013/5/1, Journal of Mathematical & Fundamental Sciences, Volume 45 Issue 2, 2013, 172-188 Copyright © 2013 Published by ITB Journal Publisher, ISSN: 2337-5760, DOI: 10.5614/j.math.fund.sci.2013.45.2. f*		
	13. The Modeling of 2D Controlled Source Audio Magnetotelluric (CSAMT) Responses Using Finite Element MethodImran:, ***Hilman Mohammad****1,2, Wahyu Srigutomo1, Doddy Sutarno1, Prihadi Sumintadireja3, Journal of Electromagnetic Analysis and Applications, Vol.4 No.7(2012), Article ID:21262,12 pages DOI:10.4236/jemaa.2012.47041, ISSN (Print) 0552-9034, ISSN (Online) 2076-0906*		
	14. Topographic effect modeling of 2D MT responses using boundary element method: ***Imran Hilman Mohammad****; Wahyu Srigutomo; Doddy Sutarno, AIP Conference Proceedings 1454, 113–116 (2012) https://doi.org/10.1063/1.4730700, Volume 1454, Issue 1, 20 June 2012*		
Activities in specialist bodies over the last 5 years	*Organisation*	*Role*	*Period*
	Membership without a specific role need not be mentioned		

STAFF
PORTFOLIO

EXPLORATION GEOPHYSICS

2023

http://geophys.unpad.ac.id

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Dr.Asep Harja, S.Si., M.Si..*		
Post	*Exploration of Geophysics*		
Academic career	*Initial academic appointment* *Doctorate (Physics)* *Master Degree (Physicc)* *Undergraduate degree (sPhysics)*	*Universitas Padjadaran* *Institut Teknologi Bandung* *Institut Teknologi Bandung* *Universitas Padjadaran*	*1995* *2004-2009* *1996-1999* *1988-1993*
Employment	*Position*	*Employer*	*Period*
	Lecturer	*Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*1995-1999*
	Senior Lecturer	*Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*1999-2010*
	Assistant Professor	*Department of Geophysics, Faculty of Mathematics and*	*2010-2022*

		Natural Sciences, Universitas Padjadjaran		
	Associate Professor	*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*		*2022-now*
Research and development projects over the last 5 years	*Name of project or research focus*	*Period*	*Partner*	*Amount of financing*
Industry collaborations over the last 5 years				
Patents and proprietary rights	*Title*			*Year*
	1. Kuliah Lapangan Geofisika 2020 - Metode Seismik Refraksi (EC00202236620)			*2022*

	2. Kuliah Lapangan Geologi Karangsambung 2020 (EC00202137769)	*2021*
	3. Kuliah Lapangan Geofisika 2020 - Metode Gayaberat (EC00202137793)	*2021*
	4. Video Kuliah Lapangan Geofisika 2020 - Metode Geolistrik (EC00202163345)	*2021*
	5. Kuliah Lapangan Geofisika 2020 - Metode Geomagnetik (EC00202168175)	*2021*

Important publications over the last 5 years			
Activities in specialist bodies over the last 5 years	*Organisation*	Role	Period
	1. Himpunan Ahli Geofisika Indonesia (HAGI)	Member	*1996-now*
	2. Himpunan Ahli Geofisika Indonesia (HAGI)	*Head of Komwil HAGI JABAR*	*2019-now*
	3. Asosiasi Penyelenggara Pendidikan Geofisika Indonesia (APPGI)	Deputy treasurer	2022-now

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Bambang Wijatmoko, S.Si., M.Si*			
Post	*Exploration Geophysics*			
Academic career	*Initial academic appointment* *Master Degree (Physics)* *Undergraduate degree (Physics)*		*Universitas Padjadjaran* *Universitas Gadjah Mada* *Universitas Diponegoro*	*1997* *1998 - 2001* *1988 - 1994*
Employment	*Lecturer*		*Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*1997 - 2010*
	Lecturer		*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*2010 - present*
Research and development projects over the last 5 years	*Name of project or research focus*	*Period*	*Partner*	*Amount of Financing*
	Penerapan metode geofisika terpadu untuk sistem mitigasi bencana	*2023*	*Pemerintahan Desa Cihanjuang Kecamatan*	*170.000.000,-*

	gerakan tanah berbantuan IoT dan komputer performa tinggi		*Cimanggung Kabupaten Sumedang*	
	Pemodelan dinamika gerakan tanah dengan parameterisasi data lapangan untuk mitigasi kebencanaan (PDD)	*2021*		*60.000.000,-*
	Penerapan metode hidrodinamika partikel dengan parameterisasi data sampling dan survey geofisika sebagai upaya mitigasi kebencanaan daerah potensi gerakan tanah (RDDU)	*2019 - 2020*		*120.000.000,-*
Industry collaborations over the last 5 years	*Project title* *Partners*			
Patents and proprietary rights	*Title*			*Year*
Important publications				

over the last 5 years			
Activities in specialist bodies over the last 5 years	*Organisation*	*Role*	*Period*

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Budy Santoso, MT*		
Post	*Exploration and Environmental Geophysics*		
Academic career	*Initial academic appointment* *Doctorate (Environmental Sciences)* *Master degree (Geological Engineering)* *Undergraduate degree (Physics)*	*Universitas Padjadjaran* *Universitas Padjadjaran (on going)* *Universitas Padjadjaran* *Universitas Padjadjaran*	 *2015* *2018 - now* *2010-2012* *2000 - 2002*
Employment	*Senior Lecturer* *Lecturer*	*Universitas Padjadjaran* *Universitas Padjadjaran*	 *2016 - now* *2015 - 2016*
Research and development projects over the last 5 years	*Name of project or research focus*	*Year*	*Amount of financing*
	1. Pemanfaatan Air Tanah Untuk Kebutuhan Sehari-Hari dan Sumber Pengairan Persawahan Tadah Hujan Di Desa Sumber Kulon, Kecamatan Jatitujuh, Kabupaten Majalengka.	*2016*	*Rp 28.000.000 from Unpad scheme HPKRD*
	2. Kajian Gerakan Tanah Menggunakan Metode	*2017*	*Rp 15.000.000*

	Electrical Resistivity Tomography (Studi Kasus : Pergeseran dan Retakan Jembatan)		*from Unpad scheme RDPU*
	3. Investigasi Bidang Gelincir Pada Daerah Rawan Longsor Menggunakan Metode Geolistrik-2D (Studi Kasus: Pergerakan Tanah di Daerah Pasanggrahan Baru, Sumedang Selatan)	*2018*	*Rp 76.152.001 from Unpad scheme RFU*
Industry collaborations over the last 5 years	*Project title* *Partners*		
Patents and proprietary rights	*Title*		*Year*
	1. Kuliah Lapangan Geologi Karangsambung 2020 (EC00202137769)		*2021*
	2. Video Kuliah Lapangan Geofisika 2020 - Metode Geolistrik (EC00202163345)		*2021*
	3. Kuliah Lapangan Geofisika 2020 - Metode Geomagnetik (EC00202168175)		*2021*
	4. Kuliah Lapangan Geofisika Metode GPR di Karangsambung (EC00202172592)		*2021*
Important publications over the last 5 years	*1.* ***Santoso, B****, Subagio, Hasanah,M.U, dan Suwargana, H. Februari. Investigasi Pendugaan Gerakan Tanah Menggunakan Metode Electrical Resistivity Tomography dan Self Potential di Daerah Pasanggrahan Baru, Sumedang Selatan. Jurnal Geologi dan Sumberdaya Mineral Vol.21. No.1 Februari 2020 hal 33-44, DOI: http://dx.doi.org/10.33332/jgsm.geologi.v21i1.497,*		

	Kementerian Energi dan Sumber Daya Mineral, P-ISSN: 08539634, E-ISSN: 25494759
	*2. **Santoso, B**., Wijatmoko, B., Supriyana,E. Identifikasi Bidang Gelincir Berdasarkan Parameter Fisika Batuan (Studi Kasus: Daerah Rawan Longsor Di Jalan Kereta Api Km 110, Purwakarta), JIIF (Jurnal Ilmu dan Inovasi Fisika), Vol. 04, No. 02 (2020) 123 – 130, https://doi.org/10.24198/jiif.v4i2.27579, Departemen Fisika FMIPA Universitas Padjadjaran, P-ISSN : 25490516, E-ISSN : 25497014*
	*3. **Santoso,B**.,Prirahmayang, N. and Kirana,K.H.Identification of aquifer using geoelectric resistivity method of reciprocal schlumberger array (case study: Tanggamus, Lampung Province), Padjadjaran Earth Dialogues, International Symposium on Geophysical Issues 2–4 July 2018, Bandung, Indonesia, IOP Conf. Series: Earth and Environmental Science, Vol. 311, (2019), 012059, IOP Publishing, doi:10.1088/1755-1315/311/1/012059, ISS: 1755-1315*
	*4. **Santoso,B**., Hasanah, M.U. and Setianto.Landslide investigation using self potential method and electrical resistivity tomography (Pasanggrahan, South Sumedang, Indonesia), Padjadjaran Earth Dialogues, International Symposium on Geophysical Issues 2–4 July 2018, Bandung, Indonesia, IOP Conf. Series: Earth and Environmental Science, Vol. 311, (2019), 012068, IOP Publishing, doi:10.1088/1755-1315/311/1/012068, ISS: 1755-1315*
	*5. Nia, G.M., Setiadi, I., **Santoso,B**. and Supriyana,E. Delineation of sedimentary sub-basin and basement configuration based on the upward continuation filter and 2d and 3d modeling of gravity data (a case study : Rembang Area its surroundings). Padjadjaran Earth Dialogues, International Symposium on Geophysical Issues 2–4 July 2018, Bandung, Indonesia, IOP Conf. Series: Earth and*

	Environmental Science, Vol. 311, (2019), 012061, IOP Publishing, doi:10.1088/1755-1315/311/1/012061, ISS: 1755-1315
	*6. Ardiani, N.R., Setianto, **Santoso,B**., Wibawa,B.W., Panatarani,C., and Joni,I.M. Quantitative analysis of iron sand mineral content from the south coast of cidaun, West Java using rietveld refinement method. 2nd International Conference and Exhibition on Powder Technology (ICePTi) 2019, Bandung, Indonesia, AIP Conference Proceedings 2219,040003 (2020): https://doi.org/10.1063/5.0003018*
	*7. **Santoso** dan Subagio. Pemodelan Nikel Laterit Berdasarkan Data Resistivitas Di Daerah Kabaena Selatan Kabupaten Bombana, Provinsi Sulawesi Tenggara. Jurnal Geologi dan Sumberdaya Mineral, Vol.19. No.3, Agustus 2018, hal 148 - 161, DOI: http://dx.doi.org/10.33332/jgsm.geologi.v19i3.408, Kementerian Energi dan Sumber Daya Mineral, P-ISSN: 08539634, E-ISSN: 25494759*
	*8. **Santoso,B**., Setianto, M U Hasanah,M.U., Wijatmoko, B., Supriyana, E.Mohammad:Mitigation of Land Movement Using Self Potential Method In Ling-Anjung Region, Sumedang Regency:, , EKSAKTA: Berkala Ilmiah Bidang MIPA, DOI : 10.24036/eksakta/vol19-iss02/141, Vol. 19, Issue 2/30, October 2018, Fakultas Matematika Dan Ilmu Pengetahuan Alam (FMIPA), Universitas Negeri Padang, E-ISSN: 2549-7464, P-ISSN: 1411-3724*
	*9. **Santoso,B.,** Identifikasi Akuifer Menggunakan Metode Geolistrik Resistivitas di Daerah Bebandem, Karang Asem, Bali. Eksakta : Berkala Ilmiah Bidang MIPA, Vol. 19, No. 1, 30 April 2018, DOI : 10.24036/eksakta/vol19-iss01/101, FMIPA Universitas Negeri Padang, Indonesia, http://eksakta.ppj.unp.ac.id, E-ISSN : 2549-7464 P-ISSN : 1411-3724*

	*10. **Santoso,B**., Setianto., Hilman,I. Investigasi Gerakan Tanah dan Akuifer Menggunakan Metode Electrical Resistivity Tomography di Sekitar Lereng BGG Jatinangor. . JIIF (Jurnal Ilmu dan Inovasi Fisika), Vol. 02, No. 01 (2018) 45 – 52, DOI: doi.org/10.24198/jiif.v2i1.15392, Departemen Fisika FMIPA Universitas Padjadjaran, P-ISSN: 25490516, E-ISSN: 25497014*		
	*11. Wijatmoko,B., **Santoso,B**., Agustine,E., Rosandi,Y. Struktur Resistivitas Dangkal Sebagai Upaya Mitigasi Bencana Pergerakan Tanah. Jurnal Pengabdian kepada Masyarakat, (Indonesian Journal of Community Engagement), Vol.5, No.1, Maret 2019, Hal 108-120, DOI:http://doi.org/ 10.22146/jpkm.33076, Universitas Gadjah Mada, ISSN (print) 2460-9447, ISSN (online) 2541-5883*		
Activities in specialist bodies over the last 5 years	*Organisation*	*Role*	*Period*
	1. Himpunan Ahli Geofisika Indonesia (HAGI)	*Member*	*2018-now*

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Kusnahadi Susanto*		
Post	*Teaching area : Exploration and Environmental Geophysics* *Designation : Undergraduate program*		
Academic career	*Initial academic appointment* *Doctorate (Physics du Globe / On going)* *Master degree in Applied Geophysics* *Undergraduate degree in Physics*	*Universitas Padjadjaran* *Université de Strasbourg (on going)* *Institut Teknologi Bandung* *Universitas Padjadjaran*	*2005* *2016 - now* *2007-2009* *1999 - 2004*
Employment	***Position***	***Employer***	***Period***
	Lecturer	*Dept. Physics, Universitas Padjadjaran*	*2005 - 2011*
	Lecturer	*Dept. Geophysics, Universitas Padjadjaran*	*2011 - now*

Research and development projects over the last 5 years	***Name of project or research focus***	***Period***	***Partners***	***Amount of financing***
	1. Citarum Transformation: A Living Laboratory for International Research and	*2021-2022*	*Monash University* *UI* *CSIRO* *EAWAG*	*AUD 75.000 from Victorian Endowment for Science, Knowledge*

	Impact, *Role: Member*			*and Innovation (VESKI)*
	2. Study of Surface Water and Sediment Quality in Citarik Sub-watershed Area using DC Resistivity and Geochemical Methods *Role: Member*	*2022-2023*	*Geological Engineering, UNPAD*	*Rp 165.000.000 from UNPAD scheme RKDU*
	3. Development Of A Geophysics Observatory For Sustainable Observation Of The Hydrological System Dynamics Of The South Bandung Basin (Long-Term Hydrological Observation Of The Great Bandung Basin) *Role: Member*	*2021 - 2022*	*School of Electrical Engineering, Telkom University*	*Rp 80.000.000 From The Indonesia Endowment Funds for Education (LPDP)*
	4. Projet de recherche Suivi hydro-géophysique d'un aquifère karstique dans le Jura. *Role: Member*	*2020 - 2021*	*IPGS, Univ de Strasbourg Univ de Franche-Comté*	
	5. Projet de recherche La résistivité électrique 3D pour	*2019 - 2020*	*IPGS, Univ de Strasbourg*	

	comprendre les glissements de terrain complexes *Role: Member*			
	6. Distributed soil temperature sensing for shallow surface hydrology: application of passive Fiber-Optic technology to the Mediterranean Draix-Blone catchment *Role: Ph.D Research student*	*2016 - 2020*	*IPGS, Univ de Strasbourg*	*Rp 150.000.000 From The Indonesia Endowment Funds for Education (LPDP), and € 4.500 From CNRS*
	7. Geophysics Multi Method Measurements In The West Part Of Mount Malabar For Hydrological Study Of The South Bandung Basin *Role: Member*	*2022*		*Rp 60.000.000 from UNPAD scheme RKDU*
Industry collaborations over the last 5 years	***Project title***		***Partners***	
	1. Community service regarding the use of water resources and improving the quality of life of coffee farmers in Mount Malabar		*Merci Copr Indonesia*	
	Title			***Year***

Patents and proprietary rights	*1. Video: 3M - MAGNIFICENT MALABAR MOUNTAIN Gunung Haruman Dan Perannya Bagi Masyarakat (EC00202300911)*	*2022*
	2. Video: Health Safety And Environment (Induction) Di Lab Komputasi Dan Instrumentasi Geofisika Unpad (EC00202335714)	*2023*
	2. Video: Health Safety And Environment Induction Di Laboratorium Geofisika Unpad (EC00202335716)	*2023*
Important publications over the last 5 years	*1. **Kusnahadi Susanto**, Jean-Philippe Malet, Xavier Chavanne, Vincent Marc, Julien Gance6, Passively Heated Fiber Optic Distributed Temperature Sensing For Long-Term Soil Moisture Observation, Original article, Vadoze Zone Journal, 2023, In progress review.* *2. Julien Gance, Orlando Leite, Myriam Lajaunie, **Kusnahadi Susanto**, Catherine Truffert, Olivier Maillard, Catherine Bertrand, Gilbert Ferhat, Jean-Philippe Malet, Dense 3D electrical resistivity tomography to understand complex deep landslide structures, EGU General Assembly Conference Abstracts, EGU General Assembly, 2021, Vienna, Austria.* *3. Anthony Abi Nader, Julie Albaric, Marc Steinmann, Jean-Philippe Malet, Benjamin Pohl, Benjamin Fores, Anaïs Marchand, Camille Geley, Marine Gros, **Kusnahadi Susanto**, Gilbert Ferhat, Vanessa Stefani, Anne Boetsch, Déborah Pellecuer, Mario Rega, Fontaine Claude, Hélène Celle-Jeanton, Christian Sue,, Seismic and hydro-geophysical monitoring in the Jura mountains, Poster, Abstract, 5èmes Rencontres Scientifiques et Techniques Résif, 2021, France.* *4. Julie Albaric, Marc Steinmann, Anthony Abi Nader, Jean-Philippe Malet, Benjamin Fores, Anaïs Marchand, Camille Geley, Marine Gros, **Kusnahadi Susanto**, G Ferhat,*	

	Vanessa Stefani, Anne Boetsch, Fontaine Claude, Hélène Celle-Jeanton, Christian Sue, Monitoring hydro-géophysique des réservoirs d'eau souterraine dans le Jura, Poster, Abstract, Lettre d'information Résif, 2021, France. *5. **Kusnahadi SUSANTO**, Jean-Phillipe MALET, Vincent MARC, Julien GANCE, Xavier CHAVANNE, Permanent high-resolution temperature observations using Fiber-optic DTS to monitor soil water changes in the subsoil in a Mediterranean catchment: a synthesis of 1.5 years of data (report session), Oral, Abstract, GIS Draix,Draix Bleone et OHMCV, 2018, Grenoble, France.* *6. **Kusnahadi Susanto**, Xavier Chavanne, Vincent Marc, Julien Gance, Sebastien Klotz, Jean-Pierre Frangi, Jean-Philippe Malet, A comparison of soil moisture sensors in clay-shale soils for long-term observation , Poster, Abstract, EGU General Assembly, 2018, Vienna, Austria.* *7. **Kusnahadi Susanto**, Jean-Philippe Malet, Vincent Marc, Julien Gance, Xavier Chavanne, Permanent high-resolution temperature observations using Fiber-optic DTS to monitor soil water changes in the subsoil in a Mediterranean catchment: a synthesis of 1.5 years of data, Oral, Abstract, EGU General Assembly, 2018, Vienna, Austria.* *8. **Kusnahadi Susanto**, Jean-Philippe Malet, Vincent Marc, Julien Gance,, Assessing the soil temperature and moisture dynamics in a Mediterranean slope; an application of fiber optic DTS, Oral, Abstract, Congres Des Doctorants 2018, 2018, Strasbourg, France.* *9. **Kusnahadi Susanto**, Jean-Philippe Malet, Julien Gance, Vin- cent Marc, Fiber Optics Distributed Temperature Sensing (FO-DTS) for Long-term Monitoring of Soil Water Changes in the Subsoil, Poster, Abstract, EAGE/DGG Workshop on Fibre Optic Technology in , 2017, Postdam, Germany.* *10. **Kusnahadi Susanto**, Jean-Philippe Malet, Julien Gance, Vin- cent Marc, Long-term monitoring of temperature in the*

	subsoil using Fiber Optic Distributed Sensing, Poster, prosiding Geophysical Research Abstracts, EGU General Assembly, 2017, Vienna, Austria. *11. **Kusnahadi Susanto**, Jean-Philippe Malet, Julien Gance, Vin- cent Marc, Long-term Monitoring of Soil Temperature in Subsoil Using Fiber Optic DTS, Poster, Abstract, Journées CRITEX, IGE, 2017, Autrans, France.* *12. **Kusnahadi Susanto**, Jean-Philippe Malet, Julien Gance, Vin- cent Marc, Spatialization of soil moisture from the inversion of distributed temperature observation, Oral, Abstract, GIS Draix, 2017, Draix Bleone, France.* *13. **Kusnahadi Susanto**, Jean-Philippe Malet, Julien Gance, Vin- cent Marc, Passive heated fiber optic DTS to monitor soil thermal behaviour in clayey area, Poster, Abstract, JAG Seminar & wokshop, 2017, Besancon, France.* *14. **Kusnahadi Susanto**, Jean-Philippe Malet, Vin- cent Marc, Julien Gance,, Long-term monitoring of temperature using FO DTS for indirect soil moisture observation in subsoil, Poster, Abstract, Congres Des Doctorants 2017, 2017, Strasbourg, France.* *15. **Kusnahadi Susanto**, Jean-Philippe Malet, Julien Gance, Vin- cent Marc, Long-term temperature observation using Fiber Optic DTS to monitor soil thermal properties, Poster, Abstract, Congres Des Doctorants 2016, 2016, Strasbourg, France.*

	Organisation	***Role***	***Period***
Activities in specialist bodies over the last 5 years	*1. European Geophysical Union (AGU)*	*Member*	*2017 - 2020*
	2. Himpunan Ahli Geofisika Indonesia (HAGI)	*Member* *Committee*	*2014 – 2021* *2022 – 2024*

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Anggie Susilawati*			
Post	*Exploration Geophysics*			
Academic career	*Initial academic appointment* *Doctorate (Physics)* *Master degree (Physics)* *Undergraduate degree (Physics)*	*Universitas Padjadjaran* *Institut Teknologi Bandung* *Institut Teknologi Bandung* *Universitas Padjadjaran*		*2012* *2017 - Now* *2008 - 2010* *2003 - 2007*
Employment	*Senior Lecturer* *Lecturer*	*Universitas Padjadjaran* *Universitas Padjadjaran*		*2014 - Now* *2012 - 2014*
Research and development projects over the last 5 years	*Name of project or research focus*	*Period*	*Partners*	*Amount of financing*
	1. Analisis Multivariat Parameter Fisika-Kimia (Mineral Magnetik, Tracing Nutrien, Dan Logam Berat) Dalam Menemukenali Efek Perubahan Iklim Pada Sedimen (Studi Kasus: Waduk Saguling Sampai Waduk Cirata), Role: PI	*2023-2024*	*BRIN* *PT. Indonesia Power Saguling* *POMU Chonnam National University*	*Rp 108.000.000 from BRIN scheme RIIM*

	2. Kajian Candi Terpendam menggunakan Metode Geolistrik dan GPR serta Metode Non Magnetik di Wilayah Situs Arkeologi Menuju Potensi Usulan Geopark Nasional (Studi Kasus: Situs Percandian Batujaya, Karawang, Jawa Barat), Role: Member	*2023-2024*		*Rp 117.600.000 from Ministry of Education, Culture, Research, and Technology scheme Basic Research*
Industry collaborations over the last 5 years	*Project title* *Partners*			
Patents and proprietary rights	*Title*		*Year*	
Important publications over the last 5 years	***Anggie Susilawati**, Mochtar Niode, Mamay Surmayadi, Prihandhanu M. Pratomo, Nurhasan, Enjang J. Mustopa, Doddy Sutarno, Wahyu Srigutomo, Resistivity and Density Structure of Limboto Lake – Pentadio, Gorontalo, Indonesia based on Magnetotelluric and Gravity Data, Appl. Sci. 2023, 13(1), 644; https://doi.org/10.3390/app13010644*			
	*Dini Fitriani, Kartika Hajar Kirana, Eleonora Agustine, Mia Uswatun Hasanah, **Anggie Susilawati**, 2018, Magnetic susceptibility, morphological and magnetic mineral composition analysis on leachate sludge, Proceeding of the 13th SEGJ International Symposium, ISSN: 2159-6832*			
	*Budianto, M.A., Pranatikta, K.A., Shafaria, M., Kirana, K.H., Agustine, E., Fitriani, D., **Susilawati, A**. and Hasanah, M.U, 2022, Physical properties of orange peels eco-enzyme:*			

	one way to reduce and recycle waste and environmental problem, Jurnal Phi: Pendidikan Fisika dan Fisika Terapan, 3 (4)			
Activities in specialist bodies over the last 5 years	*Organisation*	*Role*		*Period*
	Himpunan Ahli Geofisika Indonesia (HAGI)	*Member*		*2010 - Now*

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Mia Uswatun Hasanah*		
Post	*Exploration Geophysics*		
Academic career	*Doctorate (Geophysical Engineering)* *Magister (Geophysical Engineering)* *Undergraduated (Physics)*	*Institut Teknologi Bandung* *Institut Teknologi Bandung* *Universitas Pendidikan Indonesia*	*2019 - Now* *2010 - 2013* *2005 - 2010*
Employment	*Senior Lecturer* *Lecturer*	*Universitas Padjadjaran* *Universitas Padjadjaran*	*2015 - now* *2014 - 2015*
Research and development projects over the last 5 years	*Name of project or research focus* *Period and any other information* *Partners, if applicable* *Amount of financing*		
Industry collaborations over the last 5 years			

Patents and proprietary rights			
Important publications over the last 5 years	*Selected recent publications from a total of approx. (6 publications):*		
	Vania Illona Chrestella Sinaga, Muhammad Alif Fauzan Aolindar, Muchammad Alifiyansyah Nur Pramudita, Pepen Supendi, Kartika Hajar Kirana, ***Mia Uswatun Hasanah*** *Relocation of Earthquake Hypocenter Using Double-Difference Method in Western Part of Sumatera Journal of Physics: Conference Series 2582 (2023) 012004 IOP Publishing doi:10.1088/1742-6596/2582/1/012004*		
	Dini Fitriani, Kartika Hajar Kirana, Eleonora Agustine, ***Mia Uswatun Hasanah****, Anggie Susilawati, Magnetic susceptibility, morphological and magnetic mineral composition analysis on leachate sludge, Proceeding of the 13th SEGJ International Symposium, ISSN: 2159-6832*		
	Budianto, M.A., Pranatikta, K.A., Shafaria, M., Kirana, K.H., Agustine, E., Fitriani, D., Susilawati, A. and ***Hasanah, M.U****, 2022, Physical properties of orange peels eco-enzyme: one way to reduce and recycle waste and environmental problem, Jurnal Phi: Pendidikan Fisika dan Fisika Terapan, 3 (4)*		
	Santoso, B, Subagio, ***Hasanah,M.U,*** *dan Suwargana, H. Februari. Investigasi Pendugaan Gerakan Tanah Menggunakan Metode Electrical Resistivity Tomography dan Self Potential di Daerah Pasanggrahan Baru, Sumedang Selatan. Jurnal Geologi dan Sumberdaya*		

	Mineral Vol.21. No.1 Februari 2020 hal 33-44, DOI: http://dx.doi.org/10.33332/jgsm.geologi.v21i1.497, Kementerian Energi dan Sumber Daya Mineral, P-ISSN: 08539634, E-ISSN: 25494759		
	Santoso,B., Setianto, M U Hasanah,M.U., Wijatmoko, B., Supriyana, E.Mohammad:Mitigation of Land Movement Using Self Potential Method In Ling-Anjung Region, Sumedang Regency:, , EKSAKTA: Berkala Ilmiah Bidang MIPA, DOI : 10.24036/eksakta/vol19-iss02/141, Vol. 19, Issue 2/30, October 2018, Fakultas Matematika Dan Ilmu Pengetahuan Alam (FMIPA), Universitas Negeri Padang, E-ISSN: 2549-7464, P-ISSN: 1411-3724		
	Budy Santoso, ***Mia Uswatun Hasanah*** *Landslide investigation using self potential method and electrical resistivity tomography (Pasanggrahan, South Sumedang, Indonesia) IOP Conference Series: Earth and Environmental Science. Volume No.311. Pages: 012068. IOP Publishing*		
Activities in specialist bodies over the last 5 years	*HAGI*	*Member*	*2010 - Now*

STAFF
PORTFOLIO

ENVIRONMENTAL MAGNETISM

2023

http://geophys.unpad.ac.id

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Dr. Dini Fitriani, S.Si., MT*			
Post	*Environmental Geophysics*			
Academic career	*Initial academic appointment* *Doctorate (Physics)* *Master degree (Geophysical Engineering)* *Undergraduate degree (Physics)*		*Universitas Padjadjaran* *Institut Teknologi Bandung* *Institut Teknologi Bandung* *Institut Teknologi BAndung*	*1999* *1994-1998* *1999-2002* *2007-2012*
Employment	*Lecturer*		*Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*1999-2010*
	Lecturer		*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*2010-present*
	Name of project or research focus	*Period*	*Partners*	*Amount of financing*

Research and development projects over the last 5 years	Kajian candi terpendam menggunakan metoda geolistrik dan gpr serta metoda non magnetik di wilayah situs arkeologi menuju potensi usulan geopark nasional (Studi kasus: Situs Percandian Batujaya, Karawang, Jawa Barat)	*2023*				
	Analisis suseptibilitas magnetik, kontaminasi logam berat dan indeks pencemaran di Sungai Cimande, Rancaekek	*2023*				
	Material maju penyokong infrastruktur internet of things (iot) pada bidang energi, kesehatan dan lingkungan	*2023*	*Department of Chemistry, Universitas Padjadjaran*			
	Pengukuran Multimetoda Geofisika di Gunung Malabar Bagian Barat	*2022-2023*				

	Untuk Kajian Hidrologi Cekungan Bandung Bagian Selatan			
	Magnetic and geochemical screening beresolusi tinggi untuk pemetaan kelimpahan rare earth element (REE) sebagai raw materials industry modern	*2022*	*Department of Physics, Universitas Negeri Malang*	
	Identifikasi sifat fisis sedimen sungai terpapar material antropogenik sebagai indikator pencemaran (Studi kasus: Sungai Cimande dan Sungai Citarik)	*2021*		
	Identifikasi karakteristik magnetik tanah terpapar partikulat kendaraan bermotor	*2020-2021*		
	Identifikasi penurunan kualitas tanah akibat pencemar berdasarkan sifat	*2017-2018*		

	kemagnetan dan kelistrikan			
Industry collaborations over the last 5 years	*Project title* *Partners*			
Patents and proprietary rights	*Title*			*Year*
	1. Kuliah Lapangan Geofisika 2020 - Metode Seismik Refraksi			*2022*
	2. Kuliah Lapangan Geofisika 2020 - Metode Gayaberat			*2021*
	3. Kuliah Lapangan Geofisika 2020 - Metode Geolistrik			*2021*
	4. Kuliah Lapangan Geofisika 2020 - Metode Geomagnet			*2021*
	5. Kuliah Lapangan Geologi Karangsambung 2020			*2021*
	6. Kuliah Lapangan Geofisika Karangsambung - Metode GPR			*2021*
	7. Health Safety And Environment Induction Di Laboratorium Geofisika Unpad			*2023*
Important publications over the last 5 years	*Selected recent publications from a total of approx. (give total number):*			
	1. Dini Fitriani, Rizky Ahmad Baraba, Novia Chicilia, Sinthia Anis Rofifah, Tiara Ayu Meiliani, Irfan Handi Muhammad, Eleonora Agustine, Kartika Hajar Kirana, Eddy Supriyana, Imran Hilman Mohammad and Gerald Tamuntuan, 2023, Distribution of Magnetic Properties in Sediments from Cimande River as Tracers of Anthropogenic Pollutants			

	2. Ferdinal, Hamdi Rifai, Siti Zulaikah, and Dini Fitriani, 2023, Educational Tourism of Cave: Where Literature and Geology Meet						
	3. Syamsul Hidayat, Nurhasan, Enjang Jaenal Mustopa, Dini Fitriani, Randi Rusdiana, Howard Situmorang, and Sasqia Nurul Fauziah, 2023, Land Subsidence Analysis Based on 2D Resistivity Modelling of DC Resistivity Method in Curugpanjang, Banten						
	4. Nurhasan, G.M. Lucki Junursyah, Randi Rusdiana, Qhathrin Nada, Doddy Sutarno, Dini Fitriani and Sofiana Herman, 2023, Dimensionality Analysis Using Phase Tensor and Induction Vector on Magnetotelluric Data in Tomori Region, Central Sulawesi						
	5. Pratiwi Ineke Anwar, Hamdi Rifai, Ferdinal, Siti Zulaikah, Husna, Tessa Destia Putri Lisa, Dini Fitriani, 2023, Study of Physics Concepts in Cave Exploration Activities to Develop Physics Edupark Digital Book for Senior High School Students						
	6. Eleonora Agustine, Nadhira Gunawan, Rifky Nauval, Muhammad Abdillah Budianto, Irwan Ary Dharmawan, Dini Fitriani, Kartika Hajar Kirana, Wahyu Srigutomo, Asep Harja, Imran Hilman Mohammad, Eddy Supriyana, 2023, Land Suitability and Plant Types Based on Soil Electrical Properties						
	7. Gerald Tamuntuan, Wiesje Kumolontang, Guntur Pasau, Seni H. Tongkukut, Dini Fitriani , Agnes T. Mandagi, Hesky Kolibu, Verna Suoth, As'ari As'ari, Handy Mosey, and Adey Tanauma, 2023, The Spatial Variation of Magnetic Susceptibility on						

	Agricultural Soil of Volcanic Origin in Rurukan, North Sulawesi
	8. Nurhasan, Muhammad Nadhif Rizqia, Hidayat , Ahmad Setiawan , Fajar Gumelar , Dini Fitriani , Doddy Sutarno , Enjang Jaenal Mustopa , Wahyu Srigutomo , and Randi Rusdiana, Identification of Geological Structure Based on Gravity Method in Tangkuban Parahu Volcano, Bandung, Indonesia, 2023, Hidayat , Ahmad Setiawan , Fajar Gumelar , Dini Fitriani , Doddy Sutarno , Enjang Jaenal Mustopa , Wahyu Srigutomo , and Randi Rusdiana, IOP Conf. Series: Earth and Environmental Science 1159 012006
	9. Siti Zulaikah, Hari Wisodo, Yoyok Adisetyo Laksono, Cahyo Aji Hapsoro, Hamdi Rifai, Ferdinal, Dini Fitriani, Anis Nurullaili, Muhammad Fathur Rouf Hasan, 2023, Dissemination of the Existence of the Cave as a Geotourism and Science Study Center Sosialisasi Keberadaan Gua Sebagai Geowisata dan Pusat Kajian Ilmu Pengetahuan, DINAMISIA: Jurnal Pengabdian Kepada Masyarakat, Vol. 7, No. 1, Hal. 257-266
	10. Asep Harja, Berliana Ayu Aprilia, Kusnahadi Susanto, Dini Fitriani, 2023, Identifikasi zona akuifer menggunakan metode resistivitas-DC di daerah kipas lava Pegunungan Malabar Kabupaten Bandung, Jawa Barat, JIIF (Jurnal Ilmu dan Inovasi Fisika) , Vol. 07, No. 01, 49 – 57
	11. H Situmorang, N Nurhasan , R Rusdiana, S Viridi, and D Fitriani, 2022, Subsurface structure analysis of landslide potential areas based on electrical and physical properties of soil, IOP Publishing: Journal of Physics: Conference Series
	12. Budianto, M.A., Pranatikta, K.A., Shafaria, M., Kirana, K.H., Agustine, E., Fitriani, D., Susilawati, A. and Hasanah, M.U, 2022, Physical properties of orange peels eco-enzyme: one way to reduce and recycle waste and

	environmental problem, Jurnal Phi: Pendidikan Fisika dan Fisika Terapan, 3 (4)
	13. Kirana, K.H., Iryanti, M., Nugraha, M.G., Agustine, E. and Fitriani, D, 2022, Application of K-means cluster analysis for magnetic susceptibility zoning of urban topsoil in Bandung City, IOP Publishing: Journal of Physics: Conference Series, 2309 012001
	14. R Rusdiana, Nurhasan, S Viridi and D Fitriani, 2021, Investigation the vulnerability potential of landslide in Jayagiri area using the geoelectric method, IOP Publishing: Journal of Physics: Conference Series, 2019 012102
	15. Fitriani, D., Utami, W., Kirana, K.H., Agustine, E. and Zulaikah, S, 2021, Magnetic signatures of river sediments and agricultural soils as proxy indicators of anthropogenic-derived pollution (Case study: Cikijing River, Rancaekek, West, Jurnal Penleitian Pendidikan IPA, 7 (3)
	16. Kirana, K.H., Apriliawardani, J., Ariza, D., Fitriani, D., Agustine, E., Bijaksana, S., Fajar, S.J. and Nugraha, M.G, 2021, Frequency Dependent Magnetic Susceptibility in Topsoil of Bandung City, Indonesia, IOP Conference Series: Earth and Environmental Science, IOP Publishing, Vol. 873, No. 1, p. 012016
	17. Kirana, K.H., Apriliawardani, J., Ariza, D., Fitriani, D., Agustine, E. and Nugraha, M.G, 2021, Magnetic morphology and mineralogy in urban soil of Bandung City, Indonesia, IOP Publishing: Journal of Physics: Conference Series, 1876 012006
	18. Agustine, E., Fitriani, D., Kirana, K.H., Ramdhan, F. and Srigutomo, W, 2020, Analysis of changes in soil physical properties using electrical method as an indicator of pollution distribution in North Jakarta, AIP Conference Proceedings, 2251

	19. Jahja, M., Arifin, Y.I., Syamsul, A.M.N.F., Mobiliu, F.P., Fitriani, D., Kirana, K.H. and Agustine, E, 2020, Approaches to sustain microhydro power plants (MHPP) operation in rural areas of Gorontalo Regency, Indonesia, AIP Conference Proceedings, 2251		
	20. Kirana, K.H., Ghazali, M., Septiana, L.A.E.S., Fitriani, D., Agustine, E., Fajar, S.J. and Nugraha, M.G, 2020, Karakterisasi mineral magnetik sedomen Sungai Citarum hilir melalui analisis sifat magnetik, mineralogi serta morfologi magnetik, Positron, 10 (2)		
	21. Kania Pinasti Soleha, Accep Handyarso, Dini Fitriani and Eddy Supriyana, 2019, Modeling of subsurface based on gravity data with second vertical derivative (SVD) and euler deconvolution optimazitation, Journal of Physics Conference Series, 311, 012065		
	22. E. Agustine, I D Dimawani, D. Fitriani, T D Pambudi, W. Srigutomo, S J Fajar and Trimadona, 2019, Preliminary Study on Electrical Properties of Hydrocarbon-Contaminated Soils at an Artisanal Oil Field in Central Java, Indonesia, Journal of Physics Conference Series, 1204		
	23. Dini Fitriani, Kartika Hajar Kirana, Eleonora Agustine, Mia Uswatun Hasanah, Anggie Susilawati, Magnetic susceptibility, morphological and magnetic mineral composition analysis on leachate sludge, Proceeding of the 13th SEGJ International Symposium, ISSN: 2159-6832		
Activities in specialist bodies over the last 5 years	*Organisation*	*Role*	*Period*
	Indonesian Rock Magnetic Association (IRMA)	*Member*	
	Himpunan Ahli Geofisika Indonesia (HAGI)	*Member*	

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Dr. Eleonora Agustine, MT*		
Post	*Agriculture Geophysics*		
Academic career	*Initial academic appointment* *Habilitation [German post-doctoral qualification] (subject)* *Doctorate (subject)* *Undergraduate degree (subject)*	*Universitas Sriwijaya* *Universitas Padjdjaran* *Institut Teknologi Bandung* *Institut Teknologi Bandung*	*Year* *Year* *Year* *Year*
Employment	*Position*	*Employer*	*Period*
Research and development projects over the last 5 years			
Industry collaborations over the last 5 years			
Patents and proprietary rights	*Title*		*Year*
Important publications over the last 5 years			
	Organisation	*Role*	*Period*

Activities in specialist bodies over the last 5 years	

Staff Portfolio

The Department of Geophysics
Faculty of Mathematics and Natural Sciences
Universitas Padjadjaran

Name	*Dr. Kartika Hajar Kirana, S.Pd.,M.Si*		
Post	*Environmental Geophysics*		
Academic career	*Initial academic appointment* *Doctorate (Geophysical Engineering)* *Master degree (Physics)* *Undergraduate degree (Physics Education)*	 *Universitas Padjadjaran* *Institut Teknologi Bandung* *Institut Teknologi Bandung* *Universitas Pendidikan Indonesia*	 *2010* *2014-2018* *2008-2010* *2003-2007*
Employment	*Position*	*Employer*	*Period*
	Lecturer	*Department of Physics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*2010-2011*
	Senior Lecturer	*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*	*2011-2018*

	Assistant Professor	*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*		*2018-2022*
	Associate Professor	*Department of Geophysics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran*		*2022-now*
Research and development projects over the last 5 years	*Name of project or research focus*	*Period*	*Partners*	*Amount of financing*
	1. Analisis Multivariat Parameter Fisika-Kimia (Mineral Magnetik, Tracing Nutrien, Dan Logam Berat) Dalam Menemukenali Efek Perubahan Iklim Pada Sedimen (Studi Kasus: Waduk Saguling Sampai Waduk Cirata), Role: PI	*2023-2024*	*BRIN PT. Indonesia Power Saguling POMU Chonnam National University*	*Rp 108.000.000 from BRIN scheme RIIM*
	2. Kajian Candi Terpendam menggunakan Metode Geolistrik dan GPR serta Metode Non	*2023-2024*		*Rp 117.600.000 from Ministry of Education, Culture,*

	Magnetik di Wilayah Situs Arkeologi Menuju Potensi Usulan Geopark Nasional (Studi Kasus: Situs Percandian Batujaya, Karawang, Jawa Barat), Role: Member			*Research, and Technology scheme Basic Research*
	3. Penerapan Metode Geofisika Terpadu untuk Sistem Mitigasi Bencana Gerakan Tanah Berbantuan IoT dan Komputasi Performa Tinggi, Role: Member	*2023-2026*		*Rp 827.500.000 from Ministry of Education, Culture, Research, and Technology scheme Applied Research*
	4. Assessment of Waste Leakage from villages in the Citarum River Basin, Role: Member	*2023-2024*	*Monash University UI CSIRO*	*AUD 180.000 from CSIRO scheme IPPIN*
	5. Pemanfaatan Metode Resistivitas DC dan Geokimia untuk Kajian Air Permukaan dan Kualitas Sedimen di Daerah Sub DAS Citarik, Role: PI	*2022-2023*	*Geological Engineering, UNPAD*	*Rp 165.000.000 from UNPAD scheme RKDU*

	6. Analisis Multivariat dalam Identifikasi Pola Sebaran Komponen Litogenik dan Antropogenik Sedimen Danau Singkarak Berdasarkan Parameter Kemagnetan dan Geokimia, Role: Member	*2022*	*BRIN*	*Rp 8.976.730 from BRIN scheme RPSDA*
	7. Citarum Transformation: A Living Laboratory for International Research and Impact, Role: Member	*2021-2022*	*Monash University UI CSIRO EAWAG*	*AUD 75.000 from Victorian Endowment for Science, Knowledge and Innovation (VESKI)*
	8. Multiscale Modeling dan Analisis Data Kebumian Berbasis Teknologi Komputasi Performa Tinggi, Role: Member	*2021-2023*		*Rp 300.000.000 from UNPAD scheme ALG*
	9. Identifikasi Karakteristik Magnetik Tanah Terpapar Partikulat	*2020-2021*		*Rp 151.776.100 from Ministry of Education,*

	Kendaraan Bermotor, Role: PI			*Culture, Research, and Technology scheme PDUPT*
	10. Paleoclimatic and Tectonic Studies of Central Indonesia based on Towuti Drilling Program, Role: Member	*2018-2020*	*ITB*	*Rp 3xx.xxx.xxx from Ministry of Education, Culture, Research, and Technology scheme PDUPT*
	11. Identifikasi Kondisi Lingkungan Sungai Citarum Hulu dengan Menemukenali Komponen Litogenik dan Antropogenik Pada Sedimen, Role: PI	*2019*		*Rp 101.800.000 from UNPAD sheme RKDU*
	12. Karakterisasi Mineral Magnetik pada Air, Sedimen, dan Tanah sebagai Proxy-Indicator Pencemaran di Sepanjang Daerah Aliran Sungai (DAS) Citarum Kabupaten Karawang, Role: PI	*2018*		*Rp 72.920.000 from UNPAD sheme RFU*

Industry collaborations over the last 5 years	*Project title* *Partners*	
Patents and proprietary rights	*Title*	*Year*
	1. Rancangan Penanganan Sampah dan Pengendalian Banjir di Wilayah Sungai (EC00202338255)	*2023*
	2. LANDCLASS1.0 (EC00202370396)	*2023*
	3. Kuliah Lapangan Geofisika 2020 - Metode Seismik Refraksi (EC00202236620)	*2022*
	4. Kuliah Lapangan Geologi Karangsambung 2020 (EC00202137769)	*2021*
	5. Kuliah Lapangan Geofisika 2020 - Metode Gayaberat (EC00202137793)	*2021*
	6. Video Kuliah Lapangan Geofisika 2020 - Metode Geolistrik (EC00202163345)	*2021*
	7. Kuliah Lapangan Geofisika 2020 - Metode Geomagnetik (EC00202168175)	*2021*
	8. KULIAH LAPANGAN GEOFISIKA METODA GPR DI KARANGSAMBUNG (EC00202172592)	*2021*
	9. Distrik Geonusa: Tata Kota Futuristik Berbasis Energi Panas Bumi (EC00202172591)	*2021*
Important publications over the last 5 years	*Selected recent publications from a total of approx. (34 publications):*	
	*1. Dahrin, D., Harlianti, U., Bijaksana, S., **Kirana, K.H.**, Fajar, S.J. and Suryanata, P.B., 2023. WEPAPIS 70 (Western Pacific paleointensity-stacking for the last 70 ka). Quaternary Science Reviews, 315, p.108232.*	

	2. Ramadan, A.Z., Ramadhan, F., Sihombing, F.R., Rahman, J.S., Hutabalian, M.A., Rohman, M.A., Rizki, M.I., Carrisa, R., Hendrayani, R., Hanifah, S.D., Fitriani, D and ***Kirana, K.H.****, 2023. PEMETAAN BATIMETRI DAN SIMULASI KENAIKAN MUKA AIR DI SITU CISANTI MENGGUNAKAN DUAL BEAM SONAR. Bulletin of Scientific Contribution: GEOLOGY, 21(2), pp.53-60.*
	3. Susanto, K., Azzam, M.Z., Syarafina, Z.N., ***Kirana, K.H.****, Dharmawan, I.A. and Harja, A., 2023. INVESTIGASI LAPISAN BATUAN KAWASAN PENDIDIKAN UNIVERSITAS PADJADJARAN JATINANGOR BAGIAN UTARA BERDASARKAN ELECTRICAL RESISTIVITY TOMOGRAPHY (ERT). Bulletin of Scientific Contribution: GEOLOGY, 21(2), pp.61-70.*
	4. Fitriani, D., Baraba, R.A., Chicilia, N., Rofifah, S.A., Meiliani, T.A., Muhammad, I.H., Agustine, E., ***Kirana, K.H.****, Supriyana, E., Mohammad, I.H. and Tamuntuan, G., 2023 Distribution of magnetic properties in sediments from Cimande river as tracers of anthropogenic pollutants. AIP Conference Proceedings 26 April 2023; 2694 (1): 020003.*
	5. Budianto, M.A., Pranatikta, K.A., Shafaria, M., ***Kirana, K.H.****, Agustine, E., Fitriani, D., Susilawati, A. and Hasanah, M.U., 2022. Physical Properties of Orange Peels Eco-enzyme: One way to Reduce and Recycle Waste and Environmental Problem. Jurnal Phi Jurnal Pendidikan Fisika dan Fisika Terapan, 3(4), pp.1-7.*
	6. ***Kirana, K.H.****, Iryanti, M., Nugraha, M.G., Agustine, E. and Fitriani, D., 2022, July. Application of K-Means Cluster Analysis for Magnetic Susceptibility Zoning of Urban Topsoil in Bandung City. In Journal of Physics: Conference Series (Vol. 2309, No. 1, p. 012001). IOP Publishing.*
	7. Hamdan, A.M., ***Kirana, K.H.****, Hakim, F., Iksan, M., Bijaksana, S., Mariyanto, M., Ashari, T.M., Ngkoimani,*

	L.O., Kurniawan, H., Pratama, A. and Wahid, M.A., 2022. Magnetic susceptibilities of surface sediments from estuary rivers in volcanic regions. Environmental Monitoring and Assessment, 194(4), p.239.
	*8. Fazriati, E., Purnama, A., Algifari, G.A., Muslimah, I.S.A., Sumanto, F.H.P., **Kirana, K.H.** and Susanto, K., 2022. Cross-Section Resistivity Detection of Tree (Swietenia Magahoni and Gmelina) Using ERT Method. Jurnal Penelitian Pendidikan IPA, 8(1), pp.39-44.*
	*9. **Kirana, K.H.**, Apriliawardani, J., Ariza, D., Fitriani, D., Agustine, E., Bijaksana, S., Fajar, S.J. and Nugraha, M.G., 2021, October. Frequency Dependent Magnetic Susceptibility in Topsoil of Bandung City, Indonesia. In IOP Conference Series: Earth and Environmental Science (Vol. 873, No. 1, p. 012016). IOP Publishing.*
	*10. **Kirana, K.H.**, Apriliawardani, J., Ariza, D., Fitriani, D., Agustine, E. and Nugraha, M.G., 2021, April. Magnetic morphology and mineralogy in urban soil of Bandung City, Indonesia. In Journal of Physics: Conference Series (Vol. 1876, No. 1, p. 012006). IOP Publishing.*
	*11. Al-Rasyid, M.B., Rusman, M.N., Hamonangan, D., Supendi, P. and **Kirana, K.H.**, 2021, October. The Spatio-temporal Analysis of b-value in the Banda Arc, Indonesia. In IOP Conference Series: Earth and Environmental Science (Vol. 873, No. 1, p. 012010). IOP Publishing.*
	*12. Fitriani, D., Utami, W., **Kirana, K.H.**, Agustine, E. and Zulaikah, S., 2021. Magnetic Signatures on River Sediments and Agricultural Soils as Proxy Indicators of Anthropogenic-derived Pollution Case Study: Cikijing River, Rancaekek, West Java. Jurnal Penelitian Pendidikan IPA, 7(3), pp.381-387.*
	13. Heavy Metals Effect on Mithocondrial Oxidative Phosphorylation, Oxidative Stress and Apoptosis

	*14. **Kirana, K.H.**, Ghazali, M., Septiana, L.A.E.S., Fitriani, D., Agustine, E., Fajar, S.J. and Nugraha, M.G., Karakterisasi Mineral Magnetik Sedimen Sungai Citarum Hilir Melalui Analisa Sifat Magnetik, Mineralogi serta Morfologi Magnetik. POSITRON, 10(2), pp.131-139.*
	*15. Hamdan, A.M., Bijaksana, S., Tjoa, A., Dahrin, D., Fajar, S.J. and **Kirana, K.H.**, 2020. Use and validation of magnetic properties for differentiating nickel hyperaccumulators and non-nickel hyperaccumulators in ultramafic regions. Journal of Geochemical Exploration, 216, p.106581.*
	*16. Agustine, E., Fitriani, D., K**irana, K.H.**, Ramdhan, F. and Srigutomo, W., 2020, August. Analysis of changes in soil physical properties using electrical method as an indicator of pollution distribution in North Jakarta. In AIP Conference Proceedings (Vol. 2251, No. 1, p. 030003). AIP Publishing LLC.*
	*17. Jahja, M., Arifin, Y.I., Syamsul, A.M.N.F., Mobiliu, F.P., Fitriani, D., **Kirana, K.H.** and Agustine, E., 2020, August. Approaches to sustain microhydro power plants (MHPP) operation in rural areas of Gorontalo Regency, Indonesia. In AIP Conference Proceedings (Vol. 2251, No. 1, p. 040009). AIP Publishing LLC.*
	*18. Nugraha, M.G., Ariantara, R.G., Nurjanah, A.N.N.I.S.A., Nugroho, H.S., Utama, J.A., Saepuzaman, D., Susanti, H.A.N.A., Sholihat, F.N., Setyadin, A.H. and **Kirana, K.H.**, 2020. Anomalies of earth surface gravity field (g) during total lunar eclipse (TLE) on January 31 and July 28 2018 using video tracker analysis on pendulum harmonic motion. Journal of Engineering Science and Technology, 15(2), pp.1001-1010.*
	*19. **Kirana, K.H.**, Novala, G.C., Fitriani, D., Agustine, E., Rahmaputri, M.D., Fathurrohman, F., Rizkita, N.R.,*

	Andrianto, N., Juniarti, N., Julaiha, J. and Zaenudinna, R.A., 2019. Identifikasi Kualitas Air Sungai Citarum Hulu Melalui Analisa Parameter Hidrologi Dan Kandungan Logam Berat (Studi Kasus: Sungai Citarum Sektor 7). Wahana Fis, 4(2), pp.120-128.
	*20. Nugraha, M.G., Utari, S., Saepuzaman, D., Solihat, F.N. and **Kirana, K.H.**, 2019, November. Development of basic physics experiments based on science process skills (SPS) to enhance mastery concepts of physics pre-service teachers in Melde's law. In Journal of Physics: Conference Series (Vol. 1280, No. 5, p. 052075). IOP Publishing.*
	*21. Santoso, B., Prirahmayang, N. and **Kirana, K.H.**, 2019, August. Identification of aquifer using geoelectric resistivity method of reciprocal schlumberger array (case study: Tanggamus, Lampung Province). In IOP Conference Series: Earth and Environmental Science (Vol. 311, No. 1, p. 012059). IOP Publishing.*
	*22. Novala, G.C., **Kirana, K.H.**, Fajar, S.J. and Bijaksana, S., 2019, April. Testing the effectiveness of mechanical magnetic extraction in riverine and lacustrine sediments. In Journal of Physics: Conference Series (Vol. 1204, No. 1, p. 012085). IOP Publishing.*
	*23. Hamdan, A.M., Bijaksana, S., Tjoa, A., Dahrin, D. and **Kirana, K.H**., 2019. Magnetic characterizations of nickel hyperaccumulating plants (Planchonella oxyhedra and Rinorea bengalensis) from Halmahera, Indonesia. International journal of phytoremediation, 21(4), pp.364-371.*
	*24. Yunginger, R., Bijaksana, S., Dahrin, D., Zulaikah, S., Hafidz, A., **Kirana, K.H.**, Sudarningsih, S., Mariyanto, M. and Fajar, S.J., 2018. Lithogenic and anthropogenic components in surface sediments from lake limboto as shown*

<table>
<tr><td></td><td colspan="3">by magnetic mineral characteristics, trace metals, and REE geochemistry. Geosciences, 8(4), p.116.</td></tr>
<tr><td></td><td colspan="3">25. Kirana, K.H., Bijaksana, S., King, J., Tamuntuan, G.H., Russell, J., Ngkoimani, L.O., Dahrin, D. and Fajar, S.J., 2018. A high-resolution, 60 kyr record of the relative geomagnetic field intensity from Lake Towuti, Indonesia. Physics of the Earth and Planetary Interiors, 275, pp.9-18.</td></tr>
<tr><td rowspan="4">Activities in specialist bodies over the last 5 years</td><td>Organisation</td><td>Role</td><td>Period</td></tr>
<tr><td>1. American Geophysical Union (AGU)</td><td>Member</td><td>2015-2020</td></tr>
<tr><td>2. Himpunan Ahli Geofisika Indonesia (HAGI)</td><td>Member</td><td>2018-now</td></tr>
<tr><td>3. Indonesian Rock Magnetic Association (IRMA)</td><td>Member</td><td>2018-now</td></tr>
</table>