Dear Colleagues,

Welcome to Bali and the 2nd International Congress on Earth Sciences in SE Asia. Three Universities united their powers, and with great pleasure, we present you with this Abstract Book, showcasing the successful organisation of ICES 2019.

We are thankful to all of you for trusting your research and the latest developments of Earth Sciences in the region of SE Asia and beyond to ICES 2019. We hope that this collection of Abstracts will become a solid platform of expertise, together with the oral and poster presentations, as well as the selected papers, in the upcoming publications in our collaborating journals. We endeavour to connect Geoscientists to exchange their ideas and network at every level: from plenary and keynote speakers to professional participants and students.

Please enjoy our complimentary social events, and we hope you will find some time to enjoy the marvellous sights of Bali.

We wish to extend our special thanks to the plenary and keynote speakers for their kind contribution, as well as to the volunteers of ICES 2019 from Universitas Padjadjaran and Universiti Brunei Darussalam, for their invaluable assistance in organising the event.

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Basilios Tsikouras
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Gregory Webb
Alex Whittaker

PLENARY & KEYNOTE SPEAKERS

Professor Luca Bindi
Professor Giorgio Garuti
Dr. Amy Gough
Professor Robert Hall
Professor Alfredo Mahar Francisco A. Lagmay
Professor Reinhard Moser
Professor Federica Zaccarini

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Rizha Anantha Mulia Nasution
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Viraldi Diyesa Kantaatmaja

TREASURY OF BANK NEGARA INDONESIA ACCOUNT
Vitasha Adha Chaerul

DESIGN OF CERTIFICATES, T-SHIRTS AND MARKETING COVER PAGES
Raihan Alfaridzi
We owe the successful organisation of this Congress to our great Volunteers Team:

Abdul Muiz bin Hamdan
Adi Ameza binti Mohd Addly
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**Scientia Bruneiana**
*A Journal of Natural and Applied Sciences*
1. **Short Programme**

<table>
<thead>
<tr>
<th>Time</th>
<th>Garuda</th>
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## 2. Plenary talks

<table>
<thead>
<tr>
<th>Time</th>
<th>Overview of plenary lectures and poster sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.00</td>
<td>Keraton Ballroom</td>
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<tr>
<td>09.30</td>
<td>Opening Ceremony</td>
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<tr>
<td>09.30</td>
<td><strong>Subduction, Collision, Extension and Hazards in Eastern Indonesia: Our Contribution as Geoscientists</strong></td>
</tr>
<tr>
<td>10.15</td>
<td>Professor Robert Hall (Director of SE Asia Research Group, Royal Holloway University of London, UK)</td>
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<tr>
<td>13.30</td>
<td><strong>A Short History about how Impossible Crystals Came to Earth from Outer Space</strong></td>
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<tr>
<td>14.15</td>
<td>Professor Luca Bindi (University of Florence, Department of Earth Sciences, Italy)</td>
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<td>15.45</td>
<td><strong>The Historical Copper Mines of the Northern Apennines of Italy: Insight into the Origin of Unconventional “Volcanic-Associated Massive Sulfide” (VMS) Deposits of the Mesozoic Tethys</strong></td>
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<td>16.30</td>
<td>Professor Giorgio Garuti (University of Leoben, Austria)</td>
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<td>17.30</td>
<td>Poster Session</td>
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<td>10.30</td>
<td><strong>Geochemistry, Mineralogy and Economic Aspects of the Platinum Group Elements (PGE)</strong></td>
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<td>11.15</td>
<td>Professor Federica Zaccarini (University of Leoben, Austria)</td>
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<td>13.45</td>
<td><strong>Imperatives in Climate Change Adaptation-Disaster Risk Reduction</strong></td>
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<td>14.30</td>
<td>Professor Alfredo Mahar Francisco A. Lagmay (National Institute of Geological Sciences and Nationwide Operational Assessment of Hazards Center, University of the Philippines)</td>
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<td>17.15</td>
<td>Poster Session</td>
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4. Post-Congress field trip

Wednesday 20 November
THE GEO-WONDERS OF BALI

Field Trip Leaders:

5. Social Events

Sunday 17 November
18.00-21.00: Icebreaker Party, Museum Pacifica

Monday 18 November
18.00-19.00: Night Walk at the Beach

Tuesday 19 November
19.30: Gala Dinner

6. Programme of sessions

Session 01: Igneous Formations and their Petrogenetic Processes
Tuesday 09.00 - 09.45

Session 02: Advanced Mineralogy
Monday 10.45 - 12.00

Session 03: Volcanic Processes: Formation, Evolution, and Behaviour
Monday 14.15 - 15.15, 16.30 - 17.30

Session 04: Mineral and Energy Resources of SE Asia
Monday 16.30 - 17.30

Session 05: Earthquake Geology of South and Southeast Asia
Tuesday 09.00 - 10.00, 11.15 - 12.15

Session 06: Paleontology, Paleobiodiversity and Stratigraphy in Southeast Asia
Tuesday 09.00 - 10.00

Session 07: Petroleum Source, Reservoir, Seal, Trap, Migration and Prospect Analysis
Monday 10.45 - 12.00, 14.15 - 15.15, Tuesday 09.00 - 10.00
**Session 08: Geophysical Applications in Oil/Gas, Water, Mineral and Environmental Investigations**  
*Monday 14.15 - 15.15, 16.30 - 17.45, Tuesday 11.15 - 12.15, Tuesday 14.30 - 15.30, 16.00 - 17.15*

**Session 09: Hazards, Mitigations and Geoscientists**  
*Monday 10.45 - 12.00*

**Session 11: Paleo-, Rock and Environmental Magnetism**  
*Monday 16.30 - 17.45*

**Session 12: Fluid Geochemistry Applications and Case Studies: Ways Forward**  
*Tuesday 16.00 - 17.15*

**Session 13: Modern Techniques in Mapping and Field Geology**  
*Monday 14.15 - 15.15, Tuesday 14.30 - 15.30*

**Session 14: Geodisaster and Geotourism**  
*Monday 10.45 - 12.00*

**Session 15: Hydrogeological Processes and Water Quality**  
*Monday 14.15 - 15.15*

**Session 16: Earth Sciences in Service of the Environment**  
*Monday 10.45 - 12.00*

**Session 18: Remote Sensing Applications and Information Technologies in Geosciences**  
*Monday 10.40 - 12.00*

**Session 19: Depositional Environments and Sedimentological Processes**  
*Tuesday 11.15 - 12.15, 14.30 - 15.30, 16.00 - 17.15*

**7. Poster Sessions**

*Monday 18 November*  
*17.30 - 18.30 (Keraton Ballroom)*

*Tuesday 19 November*  
*17.15 - 18.30 (Keraton Ballroom)*
8. Oral Sessions

Monday 18 November

Garuda Room

Session 07: Petroleum Source, Reservoir, Seal, Trap, Migration and Prospect Analysis
Chairpersons: Md Aminul Islam, Perveiz Khalid

10.45 - 11.00 Delineation of Reservoir Potential and Net Pay Zone in Cretaceous Clastic Reservoir in Eastern Suleiman Fold and Thrust Belt Punjab, Pakistan
Perveiz Khalid, Hadayat Ullah, Shamshad Akhte

11.00 - 11.15 Geochemical Analysis for Determining the Quality of Source Rock from Bayah Formation, Lebak, Banten
Rakha Pratama Abdurrahman, Dyah Nindita Sahdarani, Lismeri Br. Ginting, Eddy A. Subroto, Abdul Haris

11.15 - 11.30 Technical Feasibility of Exploitation Oil and Gas Abandoned Well
Eddy Ibrahim, Maulana Yusup, Muhammad Abu Bakar Sidik

11.30 - 11.45 Integration of Surface Geochemistry and Subsurface Interpretation to Identify the Possible Hydrocarbon Accumulation in the Northern Offshore Taliabu-Mangole Island
Sugeng Sapto Surjono, Donatus Hendra Amijaya, Muhammad Rizki Asy’ari

11.45 - 12.00 Opportunity and Challenges in Exploring the Next Hydrocarbon Potential Area in the Eastern Indonesia: An Evaluation of 30 Years Exploration Data
Benyamin Sapiie, Indra Gunawan, Alfend Rudyawan, Chalid Idham Abdullah, Agus Handoyo
Harsolumakso, Meli Hadiana, Asep H.P. Kesumajana

Chairpersons: Md Aminul Islam, Perveiz Khalid

14.15 - 14.30 Regional Upper Crust Shear-Wave Velocity Structure in the Western Part of Java, Indonesia Determined from Ambient Noise Tomography: Depth Inversion Using a Neighbourhood Algorithm
Shindy Rosalia, Sri Widiyantoro, Phil R. Cummins, Tedi Yudistira, Andri D. Nugraha

14.30 - 14.45 Application of Pre-Stack Time Migration Using Kirchhoff Migration Method on 2D Land Seismic Data At Field “NN”
Nadaa Daneshara, Imam Suyanto, Muhammad Ezra Alhazmi, Muhammad Faris Abdurrachman

15.00 - 15.15 Integrating Seismic Rock Physics in Fractured Reservoir Modelling and its Use to Minimize Uncertainty During Exploitation Process
Billy Harnest, Indra Gunawan

Chairpersons: Aminul Islam, Edoardo Piani
16.30 - 16.45 An Overview on Borehole Image-Logs: What is Behind this Advanced Logging Technology, its Development and Some Applications
Edoardo Piani, Nicola Levi

16.45 - 17.00 Hydrocarbon Reservoir Identification Using Envelope and Acoustic Impedance Attributes. Case Study: Finnmark Platform, Barents Sea
Muhammad Ezra Alhazmi, Agus Riyanto, Muhammad Faris Abdurrachman, Nadaa Daneshara

17.00 - 17.15 Petrophysics Analysis to Determine Initial Gas and Oil in Place in Frontier Formation, Wyoming, USA
Sri Wahyuni, Dewi Ayu Swastika, Jennifer Claudia Patty, Erfan, Makharani, Muh. Altin Massinai

17.15 - 17.30 Reservoir Characterization Using Petrophysical Cross Plot Analysis. Case Study: Finnmark Platform, Barents Sea
Muhammad Faris Abdurrachman, Muhammad Ezra Alhazmi, Nadaa Daneshara, Agus Riyanto, Adlirrahman Aufar Mujiyanto

17.30-17.45 Analysis of Facies and Property Relations Reservoir Zone "TG" Field "MIF" Bekasap Formation, Central Sumatra Basin
M. Iqbal Fadhilah, Kefi Rahmadio, I Made Dedy Widiastrawan, Widya Anggraini, Evan Reystaphen Sammuel, Muhammad Naufal Syafrun, Jennifer Michelle Sherafim
**Klungkung Room**

**Session 09: Hazards, Mitigations and Geoscientists**
Chairpersons: Robert Hall, Amy Gough

**10.45 - 11.00** The Earthquake Hazard Level of Makassar City
*Bondan Rizky Ramadhan, Muhammad Dimyati, Astrid Damayanti*

**11.00 - 11.15** Analysis and Determination of “Major Warning” Affected Areas by Sunda Strait-Banten Megathrust Tsunami (Case Study: 6.9 Magnitude Earthquake on August 2nd, 2019 in Banten)
*Dwi Anti Manar Yazida, Tei ly Kurniawan, Wiko Setyonegoro, Rahmat Setyo Yuliatmoko, Mohammad Obie Restianto*

**11.15 - 11.30** Determination of Disaster Risk Zone Using Network Analysis and Weighted Overlay as a Basis for Disaster Safe School Management in Depok, West Java
*Intanza Oktavia, Muhammad Rizqy Septandy, Reinof Razzaqi Yusya, Tito Latif Indra, Junaedi Abdulah*

**11.30 - 11.45** Prediction of Landslide Hazard Potential Tapanuli Utara District
*Kiki Riris Nababan, Mangapul Parlindungan Tambunan*

**11.45 - 12.00** Flood Modeling for Sustainability City in North Jakarta District
*Radhen Inthan Leothriansari Vutaco, Muhammad Dimyati, Supriatna, Astrid Damayanti*

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**Session 07: Petroleum Source, Reservoir, Seal, Trap, Migration and Prospect Analysis**
Chairpersons: Md Aminul Islam, Perveiz Khalid

**14.15 - 14.30** Controls on the Carbonate Buildups Evolution in the Central Luconia Province, Offshore Sarawak
*Ari Yusliandi, Benjamin Sautter, Michael C. Poppelreiter*

**14.30 - 14.45** Study Case: Analysis Geochemistry on Characterisation of Source Rock Based on Sample Outcrop in Bengkulu and Surrounding Area
*Mohamad Salsabila, Muhammad Irfan Fadilah, Yves Belgiaswara Susilo, Agus Guntoro*

**14.45 - 15.00** Geochemical Characteristics of Sangkarewang Formation, West Sumatra, Indonesia as an Indicative of Potential Unconventional Resources
*Nisa Nurul Ilmi, Billy G. Adhiperdana, Iyan Haryanto, Wahyu Suharyo, Edy Sunardi*

**15.00 - 15.15** Determination of New Potential Petroleum System Based on Source Rock and Oil Seepage Biomarker Analyses in the Southwest Java Basin
*Ina Octaviyani, Muhammad Rizqy Septandy, Desi Yususminar, Edi Ariyono Subroto, Abdul Haris*
**Session 04: Mineral and Energy Resources of SE Asia**
Chairpersons: Maria Ines Rosana Balangue-Tarriela, Federica Zaccarini

**16.30 - 16.45** Morphology and Trace Element Composition of Pyrites as a Potential Vector to Hydrothermal Deposits: A Case Study On The Runruno Ore Deposit
*Cleodette L. Lagata, Maria Ines Rosana Balangue-Tarriela, Chun Kit Lai, Janice Azares-Wayan*

**16.45 - 17.00** Identification of Nickel and Cobalt Deposit on Laterite and Alluvial Zone: Case Study Southeast Sangaji, Maba, East Halmahera, North Maluku
*Sulistio Yuwono, Shalehuddin Al Ayyubi, Gilang Ramadhan*

**17.00 - 17.15** Hydrothermal Alteration in Runruno and Didipio Alkaline-Hosted Ore Deposits and Vicinity
*Maria Ines Rosana Balangue-Tarriela, Maria Angelica Peña, Maria Isabella G. Hermo, Cleodette L. Lagata*

**17.15 - 17.30** Surface Alteration Modelling, Inferred Paleostress and Driving Pressure Index From Orientations of Lampung Gold Vein Prospect, Southern Sumatera, Indonesia
*Linda Permata, Syafrizal, Kotaro Yonezu, Soeharto R. Garyono*
Kamasan Room

Session 02: Advanced Mineralogy
Chairpersons: Giorgio Garuti, Maria Ines Rosana Balangue-Tarriela

10.45 - 11.00 Keynote Talk: Mineralogy Meets Medicine
Reinhard Moser, Reinhold Kerbl, Thomas Alber, Rudolf Schrittwieser, Federica Zaccarini

11.15 - 11.30 Tsikourasite, Mo$_3$Ni$_2$P$_{1+X}$ (X < 0.25), A Rare Phosphide from the Agios Stefanos Chromium Mine, Othrys Ophiolite, Greece
Federica Zaccarini, Luca Bindi, Elena Ifandi, Tassos Grammatikopoulos, Chris Stanley, Giorgio Garuti, Daniela Mauro

11.30 - 11.45 Mineral Analysis for Instability Cisubuh and Cibulakan Shale Formation Characterization in Bambubesar Field, Jawa Barat, Indonesia
Anas Hanafiah, Indra Gunawan, Benyamin Sapiie

11.45 - 12.00 Simulating Hypervelocity Impacts Among Objects in the Early Solar System and Producing Quasicrystals
Luca Bindi

Session 13: Modern Techniques in Mapping and Field Geology
Chairpersons: Afroz Ahmad Shah, Ashar Muda Lubis

14.15 - 14.30 Structure Analysis of Quantifying Spacing and Fracture Intensity of Upper Cibulakan Formation in Cipamingkis River, West Java
Ratu Dieva Tiffany Aziza, Asri Oktavioni Indraswari, Raden Ajeng Alya Aulia Maharani

14.30 - 14.45 Structural Analysis and Tectonic Investigation of Limestone Bedding Plane of Upper Cibulakan Formation in Cipamingkis River, Jonggol, West Java
Raden A. A. A. Maharani, Asri O. Indraswari, Ratu D. T. Aziza

14.45 - 15.00 Fault Seal Analysis for Hydrocarbon Reservoir Development in the “Supran” Structure, Central Sumatera Basin
Muhammad Naufal Syafrun, Kefi Rahmadio, Imam Setiaji Ronatmojo, Firman Herdiansyah, Rochmad

15.00 - 15.15 New Insight Geological Slip Rates Along Sumatran Fault Zone Using Very High-Resolution Topographic Data
Ashar Muda Lubis, Rasti Yelmiza, Desy Rahmawati, Afroz Ahmad Shah
**Session 11: Paleo-, Rock, and Environmental Magnetism**

Chairpersons: Satria Bijaksana, Dini Fitriani


*Putu Billy Suryanata, Satria Bijaksana, Mirzam Abdurrachman, Nuresi Rantri Desi Wulan Ndari, Aditya Pratama*

**16.45 - 17.00** Modified Symbiotic Organisms Search (SOS) Algorithm for One-Dimensional Inversion Modelling of Controlled-Source Audio Magnetotellurics (CSAMT) Data from a Geothermal Prospect

*Muhamad Ghani Arrasyd, Prihadi Sumintadireja, Warsa, Hendra Grandis*

**17.00 - 17.15** Magnetic Characterizations of Nickel Hyperaccumulating Plants: Challenges and Opportunities

*Abd Mujahid Hamdan, Satria Bijaksana, Aiyen Tjoa, Darharta Dahrin, Silvia Jannatul Fajar, Kartika Hajar Kirana*

**17.15 - 17.30** Two-Dimensional Magnetotelluric Inversion to Investigate the Resistivity Structure Around Mas Crater Area of Papandayan Volcano, Indonesia

*Dieno Diba, Nurhasan*

**17.30 - 17.45** Magnetic Characterization and Heavy Metal Analysis of Sediment and Mangrove in the Krueng Aceh River, Aceh Province

*Abd Mujahid Hamdan, Fathul Hakim, Rahmi Wilda, Yeggi Darnas, Hadi Kurniawan*
Ante Room

Session 18: Remote Sensing Applications and Information Technologies in Geosciences
Chairpersons: Eleonora Agustine, Arie Naftali Hawu Hede

Dian Abby Yoga, Indra Maulana, Felix Mulia Hasudungan Sihombing, Dyah Nindita Sahdarani

Indra Maulana, Dian Abby Yoga, Felix Mulia Hasudungan Sihombing, Dyah Nindita Sahdarani

11.15 - 11.30 Identification of Rare Earth Element-Bearing Minerals Using Reflectance Spectroscopy on Samples From Alluvial Tin Mines in South Bangka, Indonesia
Arie Naftali Hawu Hede, Muhammad Anugrah Firdaus, Mohamad Nur Heriawan, Syafrizal, Ichwan Azwardi Lubis

Tri Haryanto Soleh Atmaja, Ratna Pertiwi, Friska Agustina, Nikita Christina

11.45 - 12.00 Precise Extraction of Village Boundary From Revenue Massavi Maps Using GIS/RS Techniques
Amer Masood, Danial Tahir, Rana M. Sohail Aslam, Syed Amer Mahmood, Jahanzeb Qureshi

Session 03: Volcanic Processes: Formation, Evolution, and Behaviour
Chairpersons: Mirzam Abdurrachman, Atsushi Toramaru

14.15 - 14.30 What Controlled the Explosivity and Sulphur Release of One of the Largest Recent Explosive Eruptions on Earth?
Annika Voigt, Michael Cassidy, David M. Pyle, Tamsin A. Mather, Christoph Helo, Jonathan M. Castro

14.30 - 14.45 Evidence of Magma Evolution from Genuk Volcano Based on Micro-Texture Analysis of Plagioclase and its Comparison with Magmatic Muria and Lasem Volcanoes
Ade Risman, Gan Ardiansyah, Naufal Fairuz Suhari, Mirzam Abdurrachman, Nur Hamid, Lukman Umar

14.45 - 15.00 Effusive or Explosive? What Controls Volcanic Eruptive Styles? A Review
Mike Cassidy
**15.00 - 15.15** Mapping Crystal Deformation in Volcanic Systems: An Indicator of Magma Storage Conditions
*Anna Brookfield, Michael Cassidy, Lars Hansen, Katie Kumamoto*

Chairpersons: Mirzam Abdurrachman, Mike Cassidy

**16.30 - 16.45** Products of Lamongan Volcano (East Java, Indonesia): Gradual Magmatic Changes From Continental to Subduction-Related System
*B. Priadi, IGBE.Sucipta, R.Mulyana, J. Xu*

**16.45 - 17.00** Tracking the Time-Space Evolution of the Source of Deformations During 2017-2019 Eruption of Mount Agung, Bali, Indonesia
*Estu Kriswati, Y.E. Pamitro, François Beauducel, Devy Kamil Syahbana*

**17.00 - 17.15** Evaluation of Viscosity Effect on Water Bubble Nucleation Process in Silicate Melts
*Mizuki Nishiwaki, Atsushi Toramaru*

**17.15 - 17.30** Historical Crystallization of Plagioclase from Doro Api Toi and Doro Api Bou Cone, Tambora Volcano, Indonesia
*Idham Andri Kurniawan, Mirzam Abdurrachman, Heryadi Rachmat, Andri Slamet Subandrio, Emmy Suparka*
Santi Room

Session 14: Geodisaster and Geotourism
Chairpersons: Dicky Muslim, Evi Haerani

10.45 - 11.00 Beach Management Strategy for Small Island: Case Studies of China
Zheng Weiheng, Cai Feng, Chen Shenliang, Zhu Jun, Qi Hongshuai, Cao Huimei, Zhao Shaohua

11.00 - 11.15 Ecotourism Potential Development of Bukit Barisan Froest Park in Karo Regency
Jesisca Munthe, Hafid Setiadi

11.15 - 11.30 Megageodiversity In Indonesia Based On Mud Vulcano As Potential Geotourism Bledug Kuwu And Surrounding Area
Mohamad Salsabila, Rizki Arya Putra, Dzaky Sotha, Adventino

11.30 - 11.45 Analysis of Mobile Telecommunication Network Optimization in Geopark Toba, Samosir District
Edy Kuscahyanto

11.45 - 12.00 The NIGS-UPGAA Geology Museum, A Supplementary Learning Environment of Earth Science or the New K to 12 Curriculum in the Philippines
Catherine Lit, Alyssa Peleo-Alampay, Meyrick Tablizo

Session 15: Hydrogeological Processes and Water Quality
Chairpersons: Dini Fitriani, Irwan Iskandar

Annisa Firdaus, Iskandarsyah, Supriyanto

14.30 - 14.45 Reconstructing Water-Rock Interaction Process in Shallow Aquifer Using Inverse Modelling in Diverse Geomorphological Units
Reinaldy Pratama Poetra, Tjahyo Nugroho Adji, Langgeng Wahyu Santosa, Nurul Khakim

14.45 - 15.00 Modeling of Groundwater Extraction in a Very Small Island: A Case Study in Gili Air Island, West Nusa Tenggara Province, Indonesia
Arifin, Irwan Iskandar, Lambok M. Hutasoit, Dasapta Erwin Irawan

15.00 - 15.15 Hydrogeochemistry and Dissolved Rare Earth Elements Analyses for Water Rock Interaction Determination and Recharge Mechanism of Groundwater
Tommy H. Gultom, Irwan Iskandar, Berry Casanova, Andy Yahya Al Hakim, Mustiatin, Neli Nikla Iklima, Sudarto Notosiswoyo
Tuesday 19 November

**Garuda Room**

*Session 07: Petroleum Source, Reservoir, Seal, Trap, Migration and Prospect Analysis*
Chairpersons: Md Aminul Islam, Humbang Purba

**09.00 - 09.15** Pore Pressure Characteristics and Stress Prediction Using Geomechanical Models: A Case Study of the Jambi Merang Area, South Sumatra Basin, Indonesia
*Ardi Yoga Pradana, Mohamad Fery Mustofa, Agus M. Ramdhan, Belmesty Kamila*

**09.15 - 09.30** Organic Geochemical Analysis in the “AZA” or “STA” Well in South Sumatra Basin and Surrounding Area
*Mohamad Salsabila, Rizki Arya Putra, Dzaky Sotha, Adventino, Hot Tuah Andreas Putra, Arista Muhartanto*

**09.30 - 09.45** Forecasting Remaining Reserve Amount of Crude Oil Per Well of Field X by Using Decline Curve Arps Analysis
*Eddy Ibrahim Adang Suherman Riki VS*

**Session 08: Geophysical Applications in Oil/Gas, Water, Mineral and Environmental Investigations**
Chairpersons: Aminul Islam, Humbang Purba

**11.15 - 11.30** The Levin’s T-Transform: A Novel Non-Hyperbolic Approximation for Long Offset Seismic Data
*Humbang Purba, Awali Priyono, Wahyu Triyoso, Mochamad Apri*

**11.30 - 11.45** Microearthquake Hypocenter Relocation Using Double-Difference Method at the Geysers Geothermal Field, Northern California
*Nikita Christina, Tri Haryanto Soleh Atmaja*

**11.45 - 12.00** Single Channel & Multi Vintages Seismic Basic and Post Processing Data of Lake Towuti
*Wahyu Triyoso, Ryan B. Andika, Abdul Hafidz, Sonny Winardhi, Satria Bijaksana, James M. Russell, Nigel Watruss, Hendrik Vogel*

**12.00 - 12.15** Ground Penetrating Radar Investigations of Groundwater Contaminant Spread Around Depok City Waste Disposal Site
*Lisa Syahnidar Eka Putri, Enggar Handra Pangestu, Dyakso Yudho Prastowo, Nine Safira, Maryadi Maryadi*
*Nuur Annisa, Muhammad Shidqii, Kefi Rahmadio, Annisa Rizki Fitriana*

14.45 - 15.00 Identification of Subsurface Structure in Marana Geothermal Prospect Area Based on GGMplus Gravitation Data Using Derivative Analysis
*Septiani Eka Anjarwati, Friska Agustina, Destya Andriyana*

15.00 - 15.15 Study of Mount Endut Geothermal Potential Using Gravity Data With Analysis Derivative Method
*Luthfi Hidayatullah, Indra Kurniawan, Ryan Faisal*

*Fatkhan, H. Danio, M.R. Sule*

16.00 - 16.15 Integrating Carbonate Platform Morphology and Sedimentology to Appraise Reservoir Properties
*Adelia Makhankova, Manoj Mathew, Benjamin Sautter, Michael Poppelreiter*

16.15 - 16.30 Two-Dimensional Modeling of Ground-Penetrating Radar Response Over Buried Pipes Network at Shallow Depth
*Wahyudi W. Parnadi, Warsa Warsa, Djoko Santoso, Hisafumi Asaue*

16.30 - 16.45 Structural Attribute for Fracture Distribution Using Three-Dimensional Seismic Data in Tiaka Carbonate Thrust Field, Indonesia
*Bayu Kusuma, Indra Gunawan*

16.45 - 17.00 Predicting Subseismic Carbonates Fractures Density and Orientation of Tiaka Imbricated Thrust Field, Sulawesi, Indonesia
*Reza Armanda, Indra Gunawan*

17.00 - 17.15 Analysis of Hydrocarbon Capacity In “X” Field Carbonate Rocks with Wireline Logging Method of Salawati Basin of Papua
*Kefi Rahmadio, I Made Dedy Widiastrawan, Evan Reystephen Sammuel, Widya Anggraini, Jennifer Michelle Sherafim*
Klungkung Room

**Session 01: Igneous Formations and their Petrogenetic Processes**
Chairpersons: Elena Ifandi, Basilios Tsikouras

09.00 - 09.15 Petrological and Seismic Studies: Implications on Cretaceous Margin of Sundaland Correlation
_Mirzam Abdurrachman, Sri Widiyantoro, Idham Andri Kurniawan_

09.15 - 09.30 Magma Genesis of Doro Api Toi and Doro Api Bou, Tambora Caldera, Sumbawa, Indonesia
_Mirzam Abdurrachman, Sri Widiyantoro, Idham Andri Kurniawan_

09.30 - 09.45 Oligo-Miocene Magmatism In Tana-Toraja, Sulawesi-Indonesia
_Bambang Priadi, Sugeng P. Saputro_

**Session 16: Earth Sciences in Service of the Environment**
Chairpersons: Kartika Hajar Kirana, Muhammad Iman Luthfi

11.15 - 11.30 Distribution of Contaminated Water Using Interpolation and Public Prespective on Clean Water in Habitation Around Indsutrial Area in Cilincing
_Vindy Arinka Fitri, Iskandarsyah, Supriyanto_

_Muhammad Iman Luthfi, Izza Hayyu Hananic, Thomas Triadi Putranto_

11.45 - 12.00 Comparison of Water Mass Distribution Patterns in Makassar Strait and Banda Sea During El-Nino Southern Oscillation (ENSO) in the Periods of La Nina 2010 and El Nino 2015
_Dewi Swastika, Ainul Mardiah, Sri Wahyuni, Sakka, Dadang Ahmad Suriamihardja, Muh. Alimuddin Hamzah Assegaf, Dessy Berlianty_

12.00 - 12.15 Study of Environmental Carrying Capacity to Make Rules in Spatial Utilization at North Bandung Area
_P. Samodro, D. Muslim, B. Muljana_

Chairpersons: Idham Andri Kurniawan, Basilios Tsikouras

14.30 - 14.45 Geo-Environmental Studies of Artisanal Small Gold Mining in Bunikasih Area, West Java Indonesia
_Idham Andri Kurniawan, Mirzam Abdurrachman, Nurcahyo Indro Basuki, Irwan Meilano, Adzkia Noerma Arifa, Wildan Nur Hamzah_
14.45 - 15.00 Identification of Heavy Metal Cu and Cr on Paddy Field Affected from Waste of Textile Industry Based on Value of Electric Conductivity: Case Study Jelegong Village Rancaek Subdistrict
Eleonora Agustine, Dewi Gusti Nur Anesta, Dini Fitriani, Kartika Hajar Kirana, Yudi Rosandi, Muhammad Amir Solihin, Anne Nurbai, Silvia Jannatul Fajar, Wahyu Srigutomo

15.00 - 15.15 Distribution and Geochemical Behaviour of Zn and Hg in Brunei-Muara, Brunei Darussalam
Khairunnisa Nazirah Karim, Basilios Tsikouras, Elena Ifandi, Chun-Kit Lai, Liyana Nadiah Osli, Mohamed Ragab Shalaby, Md Aminul Islam

15.15 - 15.30 Linkage of Rainfall and Associated Areal Damage (Spread) in Chenab River Basin-Pakistan During 2014
Jahanzeb Qureshi, Ammara Khalid, Syed Amer Mahmood, Amer Masood

Chairpersons: Vindy Arinka Fitri, Dicky Muslim

16.00 - 16.15 Analysis of Soil Slope Stability Due to Earthquake Loading
Wahyudi W. Parnadi, Agus Laesanpura, Warsa, Widodo, Djoko Santoso, Katsumi Hattori

16.15 - 16.30 Geology And Geothermal Prospect of Bumiayu, Central Java, Indonesia
Niniek Rina Herdianita, Indra Gunawan, Lindawati Sumpena

16.30 - 16.45 Relationship Between Earthquake Vulnerability Zone with Damage and Loss Level of Earthquake Impact (Case Study: Mataram City, West Nusa Tenggara)
Bambang Setyogroho, Dicky Muslim, Hendarmawan, Safri Burhanuddin

16.45 - 17.00 VLF-EM Data Conversion Into Apparent Resistivity Using the Hilbert Transform and its Application for Shallow Fault Investigation in Banjaran Bandung, West Java, Indonesia
Wahyu Srigutomo, Elfita Desifatma, Prihandhanu Mukti Pratomo, Mohammad Heriyanto, Firman Iqro’ Bismillah, Saudiah Mawaddah, Eleonora Agustine

Destya Andriyana, Friska Agustina, Septiani Eka Anjarwati
Kamasan Room

Session 05: Earthquake Geology of South and Southeast Asia
Chairpersons: Afroz Ahmad Shah, Juliane Hennig-Breitfeld

09.00 - 09.15 Hypocenter Relocation and Focal Mechanism Analysis of Aftershock of 2018 M 7.5 Palu-Donggala Earthquake (Periods of September 28 to November 20, 2018)
Annisa Nurmala, Andri Dian Nugraha, David P. Sahara, Pepen Supendi

09.15 - 09.30 Hypocenter and Focal Mechanism Analyses of Lombok Earthquake Aftershocks Using Temporary Local Seismic Network (Periods of September 9 to October 14, 2018)
Raisha Pradisti, Andri Dian Nugraha, David P Sahara, Zulfakriza, Phil Cummins, Awali Priyono, Nanang T. Puspito, Sri Widiyantoro, Yayan Mi’rojul Husni, Pepen Supendi, Muzli, Agus Riyanto

09.30 - 09.45 Seismic Hazard Function Mapping of Surface Strain Data Around off the West Coast Northern Sumatra
Wahyu Triyoso

09.45 - 10.00 Identify the Correlation Between Seismic Vulnerability Index and Local Site Effects Using S-Wave Velocity Modelling
Nurchasanah Ananda Sari, Ryan Faisal Harahap, Dwianti Manar Yazida, Aditya Rahman

Chairpersons: Afroz Ahmad Shah, Dian Kusumawati

11.15 - 11.30 Toward Better Understanding of Tectonic Activity in Ambon and Surrounding Area: Seismicity from Relocated Hypocenter Using Teletomodd
Shindy Rosalia, Andri D. Nugraha, Pepen Supendi, Daryono, Samsul H. Wiyono, Tiar Prasetya

11.30 - 11.45 Earthquake Scenario Maps of Sulawesi Island, Indonesia
Catur Cahyaningsih, Afroz Ahmad Shah, Md Aminul Islam

11.45 - 12.00 Fault Instability and its Relation to Static Coulomb Failure Stress Change in the 2016 Mw 6.5 Pidie Jaya Earthquake, Aceh, Indonesia
Dian Kusumawati, David P. Sahara, Sri Widiyantoro, Andri D. Nugraha, Muzli, Iswandi Imran, Nanang T. Puspito, Zulfakriza

12.00 - 12.15 New Active Seismogenic Fault Zones Discovered in NW Himalaya
Afroz Ahmad Shah, Qibah Reduan, R. Ashwini, Zira Jawi, Adi Ameza Mohd Addly, Javed N. Malik

Session 13: Modern Techniques in Mapping and Field Geology
Chairpersons: Afroz Ahmad Shah, Juliane Hennig-Breitfeld

14.30 - 14.45 Rates and Mechanisms of Rapid Metamorphic Complex Exhumation in Eastern Indonesia
14.45 - 15.00 Geodynamic Evolution of Datça Graben (SW Turkey): Insights from Stratigraphy, Kinematics, and Paleomagnetism
Ökmen Sümer, Çağlar Özkaymak, Fatih Seçkin Şiş, Meryem Dilan İnce, Levent Tosun, Bora Uzel, Marius Stoica, Cor Langereis, Nuretdin Kaymakci

15.00 - 15.15 Shearing Properties of Southern Mountains Rocks as a Guide to Structural Analyses
Hirundini Rustica Absari, Muhammad Faiq Hibatulloh, Iqbal Maratama, Ngakan Made Artyoga, Muhammad Gazali Rachman

15.15 - 15.30 Structural Deformation of the Pre-Cenozoic Sedimentary Rocks Within the Loei-Phetchabun Fold Belt, Thailand
Pitsanupong Kanjanapayont, Sukonmeth Jitmahantakul

Session 12: Fluid Geochemistry Applications and Case Studies: Ways Forward
Chairpersons: Maria Ines Rosana Balangue-Tarriela, Elena Ifandi

16.00 - 16.15 Application of Radon-222, Radon-220 Isotopes and Soil Gas Mercury to Define Permeable Zone Near Surface in Southern Region Geothermal Field of Wayang Windu, West Java, Indonesia
Putri Aprillia, Irwan Iskandar, Raynardus Malvin Lymena, Taiki Kubo, Sudarto Notosiswoyo

16.15 - 16.30 Application of Deuterium, $^{18}$O and $^{13}$C Isotopes to Define Surface Water-Groundwater Interaction and Tracing Groundwater Flow Path
Irwan Iskandar, Tonny H. Gultom, Berry Casanova, Mustatin, Cipto P. Septianto, Andy Yahya Al Hakim, Putri Aprillia, Sudarto Notosiswoyo

16.30 - 16.45 Dissolved 222-Radon and 13-Carbon Isotope Analyses of Cold and Hot Springs Water to Clarify Origin of Fluids and Hydrogeological System at Geothermal Site
Irwan Iskandar, Anwar Zulkhoiri, Putri Aprillia, Sudarto Notosiswoyo, Wijayanti Ashuri, Cipto P. Septianto, Andy Yahya Al Hakim, Mustatin

16.45 - 17.00 Modeling Hydrothermal Fluid Mixing in the Biliran Geothermal Wells
John Paul A. Mendoza, Maria Ines Rosana Balangue-Tarriela, Mark H. Reed

17.00 - 17.15 Rare Earth Elements, O-H Stable Isotopes and Gas Analysis of Patuha Geothermal Field, West Java, Indonesia: An Insight into the Geochemical Features and Genetic Processes
Andy Yahya Al Hakim, Irwan Iskandar, Putri Aprillia, Kaleb Yaroseray, Sudarto Notosiswoyo, Murdoko Bronto Kusumo, Chevy Iskandar

19
Ante Room

Session 06: Paleontology, Paleobiodiversity and Stratigraphy in Southeast Asia
Chairpersons: Satria Bijaksana, Eleonora Agustine

09.00 - 09.15 Depositional Environment Determination Using Pollen and Spore Fossils from Bayah Formation, Lebak, Banten
*Muhammad Yusriady, Dedy Kurniadi, Rezky Aditiyo, Abdul Haris*

09.15 - 09.30 Paleoecological Study of Mixed Carbonate-Siliciclastic Sediment Of Jatiluhur Formation At Cipamingkis River, West Java
*Achmad Faridz, Rezky Aditiyo, Supriyanto*

09.30 - 09.45 Details of Stratigraphic Section in the Jatiluhur Formation in Cipamingkis River, West Java Based on Petrographic and Fossil Analyses
*Riane Shavira Setiawan, Asri Oktavioni Indraswari, Disa Kurnia Dewi*

09.45 - 10.00 The Relationship Between Jatiluhur Formation and Upper Cibulakan Formation on Petrographic Analysis and Analysis of Foraminifera
*Disa Kurnia Dewi, Asri Oktavioni Indraswari, Riane Shavira Setiawan*

Session 19: Depositional Environments and Sedimentological Processes
Chairpersons: H. Tim Breitfeld, Fatkhan

11.15 - 11.45 Keynote Talk: Cenozoic Sedimentary Provenance in the Central Myanmar Basin; Implications for India-Asia Collision
*Amy Gough, Robert Hall, Keno Lünsdorf, Conor McMillan, Kimberley Johnson, Joseph McNeil*

11.45 - 12.00 Petrography and Scanning Electron Microscope Study for Provenance and Tectonic Setting Implication of Middle – Late Miocene Sandstone of Jatiluhur Formation, Bogor Trough, West Java
*Muhammad Arif Rahman, Tri Rani Puji Astuti, Supriyanto*

12.00 - 12.15 2D Sequential Restoration and Basin Evolution of the Wichianburi Sub-Basin, Phetchabun Basin, Central Thailand
*Sukonmeth Jitmahantakul, Jirapat Phetheed, Pitsanupong Kanjanapayont*

Chairpersons: Eddy Ibrahim, Asri Oktavioni Indraswari

14.30 - 14.45 Oligo-Miocene Provenance Changes in Sarawak, NW Borneo as a Result of Uplift of Central Borneo
*H. Tim Breitfeld, Juliane Hennig-Breitfeld, Robert Hall*
14.45 - 15.00 Understanding Ancient and Recent Flood Deposit of Citarum River, West Java
Asri Oktavioni Indraswari, Abdul Haris, Kuswantoro, Dyah Nindita Sahdarani, Muhammad Rizqy Septyandy, Rezky Aditiyo

15.00 - 15.15 Microfacies and Depositional Environment Developments of Middle Miocene Upper Jatiluhur Formation, Cipamingkis River, West Java
Alfit Taufikoh, Rezky Aditiyo, Supriyanto

15.15 - 15.30 Sedimentology of Fluvial System at Jambi Sub Basin; Implication as the Role of Talang Akar and Gumai Formation in Petroleum System
Yonash Philetas Immanuel, Fasha Nurkala Kalidasa, Muhammad Khairil Anwar, Fadhellatul Kamil, Muhammad Alqori Brilian

Chairpersons: Amy Gough, Wahyuningrum A. Lestari

16.00 - 16.15 Diagenesis and Depositional Environments of Middle Miocene Carbonates Bulu Formation
Rahma Yusuf, Rezky Aditiyo, Edola Riono, Supriyanto

16.15 - 16.30 Analysis of Carbonate Diagenesis and Porosity of Upper Cibulakan Formation, Jonggol, Bogor, Jawa Barat
Dwi Rizkia Nabhani, Asri Oktavioni Indraswari

16.30 - 16.45 Simulation of Slope Channel Depositional Mechanism from Jatiluhur Formation
Adlirrahman Aufar Mujiyanto

16.45 - 17.00 Flume Tank Simulation on Characterization of Controlling Factor and Depositional Mechanism of Submarine Canyon Deposits
Wahyuningrum A. Lestari, Tunggul M. Pratama, Rifaldy, Arum Widyastuti

17.00 - 17.15 Characterisation of Karst in Carbonate Platforms of Central Luconia Province, Offshore Sarawak, Malaysia
Siti Sarah Binti Ab Rahman, Mirza Arshad Beg, Michael C. Pöppelreiter
9. Venue Map (Nusa Dua Beach Hotel & Spa)

Opening Ceremony Hall (Keraton Ballroom)
10. Meeting Halls Floor Map (Nusa Dua Beach Hotel & Spa)