



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

ISIIC
2023

PROGRAM BOOK

**INNOVATIVE & SUSTAINABLE
INFRASTRUCTURE
INTERNATIONAL CONVENTION
#1 (ISIIC2023)
: AFFORDABLE HOUSING**

**Creative Ideas and Action in Facing
Economic Challenge and Climate
Change**

**Concorde Hotel Kuala Lumpur
27 – 28 November 2023**

WELCOMING MESSAGE

On behalf of the Conference Chairman, welcome to the “Innovative and Sustainable Infrastructure International Convention #1 (ISIIC 2023)”.

This year “Affordable Housing” is selected for its inaugural theme because this is a worldwide issue where it affects people in various regions and countries. Efforts to address “Affordable Housing” involved collaborations between governments, private sector, non-profit organizations, and international agencies. Therefore, this convention is the gateway to discuss and share their findings among these entities. It is indeed a pleasure to be here for this significant convention and I wish a warm welcome to all participants.

This convention also provides forum discussion among renowned panels from UTM, CIDB IBS Sdn. Bhd., Khazanah Research Institute, REDHA and DBKL on “Affordable Housing, Sustainable Living: A Blueprint for a Better Future”. The outcome from this forum is hoped to provide a resolution on “Affordable Housing” for the nation interest.

It is also a privilege to congratulate our sponsor from CIDB, KALAM, GEOTROPIK, FEC, Prolander Properties and JKR as our supporting organizations.

Great appreciation goes to the team from the Institute for Smart Infrastructure and Innovative Construction (ISIiC), Department of Deputy Vice Chancellor (Research & Innovation) for their hardworking and effort to ensure the success of ISIIC 2023. This encompasses the synergy between KALAM, UTM CRES, UTM CRC, FEC and Geotropik. Special appreciation also goes to the Faculty of Civil Engineering and the Faculty of Built Environment and Surveying for their continuous support to ISIIC 2023. It is hoped that the synergy and collaboration between these entities and agencies will continue to bring more “Innovating Solutions” in the near future.

I wish all presenters, participants and speakers a fruitful and rewarding convention for ISIIC 2023.

Assoc. Prof. Ts. Dr. Izni Syahrizal Ibrahim

Chairman

*Innovative & Sustainable Infrastructure International Convention #1
(ISIIC 2023): Affordable Housing
Universiti Teknologi Malaysia*



WELCOMING MESSAGE

The Institute for Smart Infrastructure and Innovative Construction (ISiiC) initiative aims to outline inclusive measures to create a national identity for affordable housing with a Madani Malaysia approach. This program organizes international conferences and forums to facilitate cross-country collaboration, exchange knowledge and the latest ideas, and promote the development of technology and innovation in the smart infrastructure industry and innovative construction to achieve the goal of National Affordable Housing.

The ISIIC 2023 program, held for the first time over two days, is a collaboration with the Center of Excellence that parallels UTM's key research work, namely sustainable and resilient urbanization, smart mobility, smart living and sustainable cities as well as intelligent manufacturing and materials. ISiiC consists of five centres of excellence; namely UTM Construction Research Center (UTM CRC), Forensic Engineering Center (FEC), Center of Built Environment in the Malay World (KALAM), Center for Real Estate Studies (CRES) and Center of Tropical Geoengineering (GEOTROPIK) are the main pillars of the integration of the areas highlighted in the ISIIC 2023 program.

By involving the speakers of the proposed contributions at the international level, it is hoped that this program will become a platform for unifying the expertise and research results of the institutes at UTM, presented internationally while taking into account local cultural values and community needs. A total of 60 conference papers from the areas of materials engineering, construction management, structural analysis, design, geoengineering, real estate and more will be comprehensively presented. This is in line with the discussion of the industry forum on Affordable Housing, Sustainable Living: A Blueprint for a Better Future with experts from various fields such as Kuala Lumpur City Hall, Khazanah Research Institute, CIDB IBS Sdn. Bhd., REHDA Malaysia and Universiti Teknologi Malaysia.

Congratulations and recognition to the chairman of the congress and all committee members directly or indirectly contributed to the success of this program. The success of this program is not just an individual effort, but the result of collaboration and mutual commitment. Not to be forgotten are all the committee members who took part in this campaign. We greatly appreciate their efforts and contributions. The participation of each individual is the key to the success of this program. In addition, the hope of organizing such a program in the future is important for the growth and development of knowledge and experience of the participants. Hopefully, the success of this meeting will be a starting point for further fruitful and effective initiatives in the future.

Prof. Ts. Dr. Edy Tonnizam Mohamad
Deputy Vice Chancellor (Development)
&
Director
Institute for Smart Infrastructure and
Innovative Construction (ISiiC)
Universiti Teknologi Malaysia



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Innovative Construction (ISiiC)**
Universiti Teknologi Malaysia
81310 Johor Bahru, Johor, Malaysia

IN COLLABORATION WITH:



GEOOTROPIK
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SUPPORTED BY:



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KEYNOTE SPEAKERS

Keynote Speech 1 : JKR Leading Sustainability

YBHG. DATUK IR. AHMAD REDZA GHULAM RASOOL
Director General of Public Works

Datuk Ir Ahmad Redza Ghulam Rasool, appointed as the Director-General of the department from January 5, 2023, previously served as Deputy Director-General (Infra Sector) of Public Works. With a 39-year career in civil service, he held key positions, including director roles in various states and Senior Director of JKR Centre of Excellence in Engineering and Technology. His expertise spans civil engineering, development project management, and asset management. Commencing his civil service career in 1984, he holds a Bachelor of Science in Civil Engineering from the University of Missouri, USA, bringing a wealth of experience to his new role.



Keynote Speech 2 : The Role of New Research and Innovations in Concrete Technology for Sustainable Infrastructure Construction

ASSOC. PROF. TS. DR. ABDUL RAHMAN MOHD.SAM
Universiti Teknologi Malaysia



Associate Professor Ts. Dr. Abdul Rahman Mohd Sam, a dedicated lecturer at Universiti Teknologi Malaysia since 1988, is currently the Director of UTM Construction Research Centre (UTM CRC). With extensive experience in various leadership roles, including Head of Materials Lab and Vice President of the Concrete Society of Malaysia, he has made notable contributions to equine infrastructure design. Beyond teaching, his research focus spans Concrete Technology, Green and Sustainable Construction, and Advanced Composite Materials. Having supervised over 20 PhD students, published 70 indexed articles, and authored books, including "Konkrit" and "Sustainable Construction Using Waste Materials," he aims to disseminate concrete-related knowledge for improved quality and sustainability.



KEYNOTE SPEAKERS

Keynote Speech 3 : Building Sustainable Communities: Exploring Reciprocity Advantage for A New Normal

AR. AHMAD FARIK ABD GHAFFAR

Farik Ghaffar Architect

Ar. Ahmad Farik bin Abd Ghaffar, principal of Farik Ghaffar Architect, established his firm in 2008, drawing from international experiences in the USA and over 15 years of local practice. In 2016, he embraced digital innovation in Architectural Consultancy Practice (ACS), leading to the creation of GiG.Ar, a gig economy platform. By marrying gig economy principles with architecture, he aims to provide a sustainable solution for small practices amidst a competitive field. His journey reflects a commitment to integrating advanced foreign experiences with local practices, culminating in the pursuit of innovative and digitally-driven approaches to architectural consultancy since 2019.



Keynote Speech 4 : From Crisis to Opportunity: Revolutionising Affordable Housing amidst Economic Challenges and Climate Shifts

PROF. DR. MARK PIETER MOBACH

Hanze University of Applied Sciences Groningen,
Netherlands



Prof. Mark Pieter Mobach specializes in optimizing user experiences within spaces and organizations, emphasizing positive change for improved organizational performance. Leading an interdisciplinary team of 18 researchers, they integrate fields such as facility management, real estate, architecture, and psychology. Engaged in diverse projects spanning education, healthcare, offices, penitentiaries, and train stations, the team prioritizes user health and well-being. Mark actively participates in facility management initiatives, serving as a speaker at conferences and master classes. His mission is to advance and disseminate knowledge and innovations in facility management on a global scale, bridging the realms of research, practice, and education.



FORUM

F  **RUM**

**AFFORDABLE HOUSING,
SUSTAINABLE LIVING:
A BLUEPRINT FOR A
BETTER FUTURE**



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PROF. SR DR. HISHAMUDDIN MOHD ALI

Professor
Universiti Teknologi Malaysia



**ASSOC. PROF. SR TS. DR. NOORSIDI
AIZUDDIN MAT NOOR**

Moderator
Universiti Teknologi Malaysia



PROGRAM SCHEDULE

27 NOV MONDAY

8.30 am – 9.00 am	Registration of participant
9.00 am – 9.30 am	ISIIC 2023 Opening Ceremony
9.30am – 10.00 am	Keynote Address 1 : JKR Leading Sustainability <i>Ybhg. Datuk Ir. Ahmad Redza Ghulam Rasool</i> <i>Director General of Public Works</i>
10.00 am – 10.30 am	Morning Break
10.30 am – 12.30 pm	Forum “Affordable Housing, Sustainable Living: A Blueprint for a Better Future”
12.30 pm – 1.00 pm	Q&A Session
1.00 pm – 2.00 pm	Lunch
2.00 pm – 2.30 pm	Keynote Address 2 : The Role of New Research and Innovations in Concrete Technology for Sustainable Infrastructure Construction <i>Assoc. Prof. Ts. Dr. Abdul Rahman Mohd. Sam</i> <i>Universiti Teknologi Malaysia</i>
2.30 pm – 5.00 pm	Parallel Session 1



PROGRAM SCHEDULE

28 NOV **TUESDAY**

8.30 am – 9.00 am	Registration of participant
9.00 am – 9.30 am	Keynote Address 3 – Building Sustainable Communities: Exploring Reciprocity Advantage for A New Normal <i>Ar. Ahmad Farik Abd Ghaffar</i> <i>Farik Ghaffar Architect</i>
9.30 am – 10.00 am	Morning Break
10.00 am – 1.00 pm	Parallel Session 2
1.00 pm – 2.00 pm	Lunch
2.00 pm – 2.30 pm	Keynote Address 4 – From Crisis to Opportunity: Revolutionising Affordable Housing amidst Economic Challenges and Climate Shifts <i>Prof. Dr. Mark Pieter Mobach</i> <i>Hanze University of Applied Sciences Groningen, Netherlands</i>
2.30 pm – 4.30 pm	Parallel Session 3
4.30 pm – 5.00 pm	ISIIC 2023 Closing Ceremony



PROGRAM SCHEDULE

OPENING CEREMONY

8.30 am – 9.00 am	The Arrival and Registration of Participants The Arrival of VIP Guest
9.00 am	National Anthem Negaraku Du'a Recital Welcoming Speech by Assoc. Prof. Ts. Dr. Izni Syahrizal bin Ibrahim Chairman Innovative & Sustainable Infrastructure International Convention #1 (ISIIC 2023) : Affordable Housing Officiating Speech by Prof. Ts. Dr. Edy Tonnizam bin Mohammad Deputy Vice Chancellor (Development) UTM Montage Presentation Token of Appreciation Photo Session
9.30 am	End of ISIIC 2023 Opening Ceremony



PROGRAM SCHEDULE

CLOSING CEREMONY

4.30 pm	<p>National Anthem Negaraku</p> <p>Du'a Recital</p> <p>Award Giving Ceremony (Best Paper Award, Best Presenter Award & Most Active Participant)</p> <p>Closing Speech by Prof. Ts. Dr. Edy Tonnizam bin Mohammad Director Institute for Smart Infrastructure and Innovative Construction</p> <p>Video Presentation</p>
5.00 pm	<p>End of ISIIIC 2023 Closing Ceremony</p>



PROGRAM SCHEDULE

PARALLEL SESSION 1

BREAKOUT ROOM 1

Chairman: Dr. Hariati Abdullah Hashim
Assistant Chairman: Ts. Umussaa'dah Adam

No	Time	Title	Presenter
1	14.30 - 14.45	Analysing the Nature of Housing Infrastructure Development Vandalism in Lagos metropolis, Nigeria	Aro Shittu Oluwakayode
2	14.45 - 15.00	IOT And Computational BIM Based Digital Twin for Sustainability Assessment: Trends, Challenges and Opportunities for Malaysia	Hauwa Olabisi Yusuf
3	15.00 - 15.15	Universal Design Adoption in Housing: A Systematic Review and future directions	Nabilah Husna Hazlan
4	15.15 - 15.30	Improve Building Maintenance Information System Method by using Revit Software: Case Study at Islamic Center Universiti Malaysia Perlis	Siti Aisya Adiba Md Fadzil
5	15.30 - 15.45	Assessing the Sourcing Strategy for Facilities Management Service Delivery in Social Housing within a Semi-arid Climate of Nigeria	Mala Ali Modu
6	15.45 - 16.00	Comparison the Lowest Possible Overlay Thickness Using Indonesian Manual Road Design method and Shell Pavement Design Method	Djoko Sarwono
7	16.00 - 16.15	Analysis of Takung 1 Bridge (Dharmasraya) Capacity with the Rating Factor Method	Masrilayanti
8	16.15 - 16.30	Optimizing the Asset and Liability Management of Construction Companies with Goal Programming Model	Weng Siew Lam
9	16.30 - 16.45	The Performance of The Management of Aceh's Regional Assets Moderated by SIPD Application	Muhammad Zainal Abidin



PROGRAM SCHEDULE

PARALLEL SESSION 1

BREAKOUT ROOM 2

Chairman: Ts. Dr. Nor Hasanah Abdul Shukor Lim
Assistant Chairman: Mdm. Che Ernie Nor Atikah Che Zainal Abidin

No	Time	Title	Presenter
1	14.30 – 14.45	An Optimum Artificial Neural Network (ANN) Model for Prediction of Compressive Confinement Strength of Concrete Cylinders	Syaza Nur Ilyia Zulkifli
2	14.45 – 15.00	Effects of Construction and Demolition Waste (CDW) as supplementary cementitious material on Compressive strength of Cement Pastes	Nazirah Ab. Wahab
3	15.00 – 15.15	Manufactured Sand as Replacement to Fine Aggregates in Concrete	Shing Mei Chiew
4	15.15 – 15.30	Durability Assessment of Fly Ash Geopolymer Concrete Under Sulphuric Acid	Mohd Azreen Mohd Ariffin
5	15.30 – 15.45	Effectiveness of the SNSM Technique for Flexurally Strengthened RC Beams Comprising GFRP Reinforcement	Md. Akter Hosen
6	15.45 – 16.00	The Potential Use of Ground Ceramic Tile Waste as Partial Cement Replacement in Mortar	Alaa Omar Tanash
7	16.00 – 16.15	Relationship between Physical and Chemical Properties of Aged Bitumen Incorporating Rejuvenator	Nurul Aliah Amirah Mazalan
8	16.15 – 16.30	Dynamic Shading Device Design with Computational Building Information Modelling for High-rise Office Building in Tropical Climate	David B. Dalumo
9	16.30 – 16.45	Effect of Metakaolin and Crumb Rubber on Pervious Concrete Bricks Properties	Mohamed Tohami M Abou Sif



PROGRAM SCHEDULE

PARALLEL SESSION 1

BREAKOUT ROOM 3

Chairman: Dr. Dayang Zulaika Abang Hasbollah
Assistant Chairman: Ms. Fazleen Slammat

No	Time	Title	Presenter
1	14.30 - 14.45	Effect Of Slope Angle and Moisture Content Of Sand On Active And Passive Soil Nailing Using Plaxis Software	Muhammad Auf Abd. Razak
2	14.45 - 15.00	Unsaturated Slope Stability Analysis at Pahang Matriculation College	Muhammad Farhan Bin Zolkepli
3	15.00 - 15.15	Unmanned Aerial Vehicle (UAV)-based Photogrammetry for Slope Mapping	Muhammad Farhan Bin Zolkepli
4	15.15 - 15.30	Effect of Bench Height to Burden Ratio on Rock Fragmentation Induced by Blasting	Muhammad Irfan Bin Shahrin
5	15.30 - 15.45	Effect of Physical Environmental Characteristics on Landslide Potential at Kuranji Watershed, Padang - West Sumatera	Andriani
6	15.45 - 16.00	CBR Behaviour of Base Coarse Substituted by SAW Slag Waste	Yelvi
7	16.00 - 16.15	Assessment of Supervised Machine Learning Models for Their Suitability in Flyrock Type Prediction Induced by Mine Blasting	Ramesh Murlidhar Bhatawdekar
8	16.15 - 16.30	Modern Landfill Barrier Systems Challenges in Geosynthetic Design and Alternative Materials Exploration	Ramesh Murlidhar Bhatawdekar
9	16.30 - 16.45	A Surface Excavation in a Granite Weathered Rock - A Case Study in Kulaijaya, Johor, Malaysia	Nurul Eilmy Zainuddin

PROGRAM SCHEDULE

PARALLEL SESSION 2

BREAKOUT ROOM 1

Chairman: Assoc. Prof. Ts. Ir. Dr. Shek Poi Ngian
Assistant Chairman: Ms. Siti Asiah Tukirin

No	Time	Title	Presenter
1	10.00 – 10.15	The Attributes of Kuala Lumpur City Flash Flood in Rapid Construction City Development Planning	M.Faizal Zulkarnaini
2	10.15 – 11.30	Development of A Framework for Effective Safety Compliance Based on Work Breakdown Structure (WBS) For Long Span Bridge Construction.	Roshen Perumal
3	10.30 – 10.45	Communication in Improving Occupational Safety and Health Among Local and Foreign Workers in The Construction Industry in Malaysia	Nur Izzati Ab Rani
4	10.45 – 11.00	Development of a standardized library for prefabricated building components in tropical island region using BIM technology	Zhang Di
5	11.00 – 11.15	Project Manager Competencies Determining Factors of High-rise Building in Indonesia	Mohd Norazam bin Yasin
6	11.15 – 11.30	Project Manager Competencies Factors of Construction Industry: A Review Paper	Mohd Norazam bin Yasin
7	11.30 – 11.45	Preliminary Survey on Effective Actions to Resolve Property Overhang in Affordable Housing Provision from Developers Viewpoint	Mohamad Zahieruden Ismail
8	11.45 – 12.00	Analysis of Safety Indicators for Risk Minimization of Prefabricated Construction Method	Izurin Muhamad Amin
9	12.00 – 12.15	Social Perspective on Affordable Housing Provisions in Iskandar Malaysia	Ling Tien Heng

PROGRAM SCHEDULE

PARALLEL SESSION 2

BREAKOUT ROOM 2

Chairman: Assoc. Prof. Ts. Ir. Dr. Ma Chau Khun
Assistant Chairman: Mr. Ahmad Nur Banin Borhanuddin

No	Time	Title	Presenter
1	10.00 – 10.15	Exploring the Eco-Conscious Generation: A Systematic Literature Review on Consumers' Willingness to Pay for Green Residential Attributes	Tan Shang Yin
2	10.15 – 11.30	Scientometric Review of One-Part Geopolymer Composites	Yoon Tung Chan
3	10.30 – 10.45	An Overview: Influence of Difference Cement Strength Class on Concrete Properties and Microstructure	Siti Asma Abd Latif
4	10.45 – 11.00	Cost Risks Analysis of Geothermal Development Project in Indonesia	Mairizal
5	11.00 – 11.15	Environmental Aspects Analysis Caused by Geothermal Development Projects in Indonesia	Mairizal
6	11.15 – 11.30	Critical Green Components that Affect Carbon Emissions in The Construction of Green Toll Roads in Indonesia	Mairizal
7	11.30 – 11.45	The Implementation of Health Protocol in National Road Small Scale Infrastructure Project in West Sumatra	Bayu Martanto Adji
8	11.45 – 12.00	Conceptualizing hard and soft benefits of adopting BIM in construction projects: A Systematic Review	Tusdid Sabur Tohfa
9	12.00 – 12.15	Trust in Robotics and Automation in the Construction Industry: The Case of Malaysia	Nur Aliah Hani Saiful Amir



PROGRAM SCHEDULE

PARALLEL SESSION 2

BREAKOUT ROOM 3

Chairman: Dr. Sharifah Salwa Syed Mahdzar
Assistant Chairman: Mdm. Laily Marina Mastan

No	Time	Title	Presenter
1	10.00 – 10.15	Space Syntax Application on Emergency Department of SASMEC And KMC: A Comparative Analysis	Sharika Tasnim
2	10.15 – 11.30	Sustainable Resilience of Facilities Design Challenges in Setiu Wetland: Environmental Education	Balqis Aminuddin
3	10.30 – 10.45	Reimagining Affordable Housing through the process of Urban Regeneration: A perspective of Johor Bahru City, Malaysia	Fazlur Rahman
4	10.45 – 11.00	Greening Urban Landscapes: A Look at Singapore's Urban Farming for Malaysia's Inspiration	Umi Syahiidah Suhaidi
5	11.00 – 11.15	Application of Metaverse in the Real Estate Industry	Lee Yu Xin
6	11.15 – 11.30	Exploring The Significance of Facilities In Residential Property Selection: A Survey-Based Analysis In Skudai	Fatin Afiqah Azmi
7	11.30 – 11.45	Optimal Siting of EVCSS in Kuala Lumpur from The Perspective of Sustainability: A GIS-based AHP Method	Garba Muhammad Sani
8	11.45 – 12.00	Urban Heritage and Tourism Development: An Insight from The Heritage City of Banda Aceh, Indonesia (Video Presentation)	Martahadi Mardhani
9	12.00 – 12.15	The Potential and Feasibility of Nature Tourism Development in The Eastern Region of Aceh Province, Indonesia: A Case Study (Video Presentation)	Salman Syarief



PROGRAM SCHEDULE

PARALLEL SESSION 3

BREAKOUT ROOM 1

Chairman: Assoc. Prof. Ir. Dr. Mohd Azreen Mohd Ariffin

Assistant Chairman: Mdm. Norlaily Ab Rahim

No	Time	Title	Presenter
1	14.30 - 14.45	Modelling The Flood Scenarios in Sungai Selangor Basin	Nor Eliza Alias
2	14.45 - 15.00	Seismic Performance Evaluation of Masonry Infilled Reinforced Concrete Frames Based on Analytical Strut Model and Nonlinear Static Analysis	Maidiawati
3	15.00 - 15.15	Development of A Specialized Framework Dedicated to Immovable Asset Data Quality (IADQ) in The Field of Immovable Asset Management	Suharizal Mahamad Subri
4	15.15 - 15.30	Comprehensive Seismic Vulnerability Analysis of Concrete Gravity Dams: Fragility Curves and Damage Index Approach (Video Presentation)	Thulfiqar Salim Hussein
5	15.30 - 15.45	Effect of Vertical and Horizontal Building Irregularities on Seismic Performance in Earthquake-Prone Areas (Video Presentation)	Haikal Fajri
6	15.45 - 16.00	Study of Conditions at the Krueng Langsa Watershed River Borders to Support River Disaster Mitigation in Langsa City, Aceh (Video Presentation)	Arisna Fauzia
7.	16.00 - 16.15	The Impact of Natural Resources, Industrial Development and Innovations on Economic Growth in Indonesia: A Nonlinear ARDL Approach (Video Presentation)	Ahmad Ridha
8.	16.15 - 16.30	Effect of Active Carbon Variations on TiO ₂ /Monmorillorite (MMT) Composite in Biodiesel Production from Cooking Oil Waste (Video Presentation)	Teuku Andi Fadlly



PROGRAM SCHEDULE

PARALLEL SESSION 3

BREAKOUT ROOM 2

Chairman: Dr. Khairul Hazman Padil

Assistant Chairman: Mdm. Norazila Kamarulzaman

No	Time	Title	Presenter
1	14.30 – 14.45	Instrumented Test Piles "A Case Study in Johor Bahru Old Alluvium"	Liknaswaran Kobarajah
2	14.45 – 15.00	Landslide Susceptibility Mapping using GIS and Weighted Overlay Approach in Selangor River Basin	Mariatul Kiftiah Ahmad Legiman
3	15.00 – 15.15	A Surface Excavation in a Sedimentary Rock –A Case Study in Nusajaya, Johor, Malaysia	Eka Kusmawati Suparmanto
4	15.15 – 15.30	Digital Transformation in Structural Estimation and Analysis: Application of BIM Concepts with Revit and Structural Analysis Robot (Video Presentation)	Firdasari
5	15.30 – 15.45	Social Media Influencers: The Mediator of Information and Overconfident Investor Behavior (Video Presentation)	Muhammad Rizal
6	15.45 – 16.00	Measuring SUTT Cable Height Using The Tangential Trigonometry Method And A Laser Managed By A Stepper Motor (Video Presentation)	M. Ari Fahril
7.	16.00 – 16.15	Design of An Early Flood Detection System For Communities In Flood-Prone Areas (Video Presentation)	Rachmad Almi Putra



PROGRAM SCHEDULE

PARALLEL SESSION 3

BREAKOUT ROOM 3

Chairman: Assoc. Prof. Ts. Ir. Dr. Shek Poi Ngian

Assistant Chairman: Mdm. Siti Asma Abd Latif

No	Time	Title	Presenter
1	14.30 - 14.45	Critical Success Factors for The Implementation of Industrialised Building System (IBS) in West Sumatera, Indonesia	Efni Uslinda
2	14.45 - 15.00	A Development Network-Based Stakeholders Coordination System for The Public Infrastructures Interfaces: an Application of IDEF Technique (Video Presentation)	Ipak Neneng Mardiah Bukit
3	15.00 - 15.15	Applicative Studies Eco-Friendly Building Material: Effort to Optimize Microclimate Improvement For Urban Heat Island Mitigation (Video Presentation)	Nova Purnama Lisa
4	15.15 - 15.30	Utilizing Self-potential Techniques in Delineating Groundwater Flow (Video Presentation)	Sabrian Tri Anda
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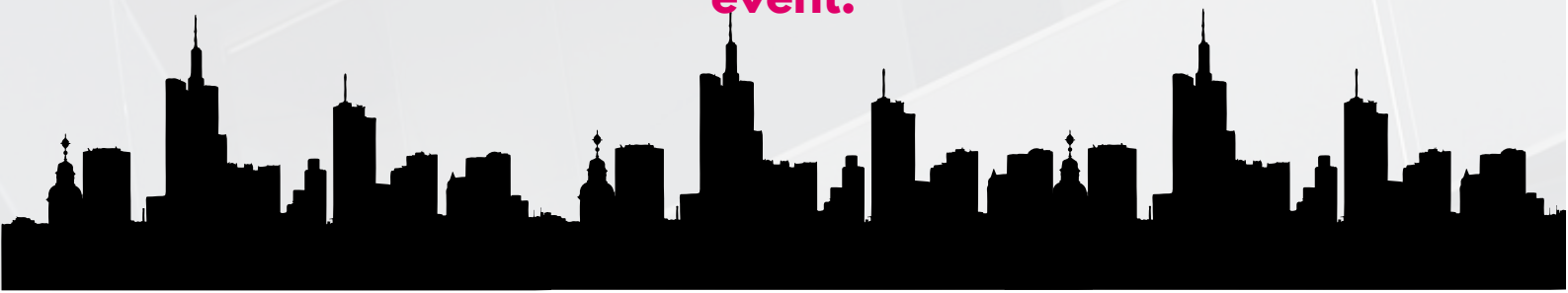
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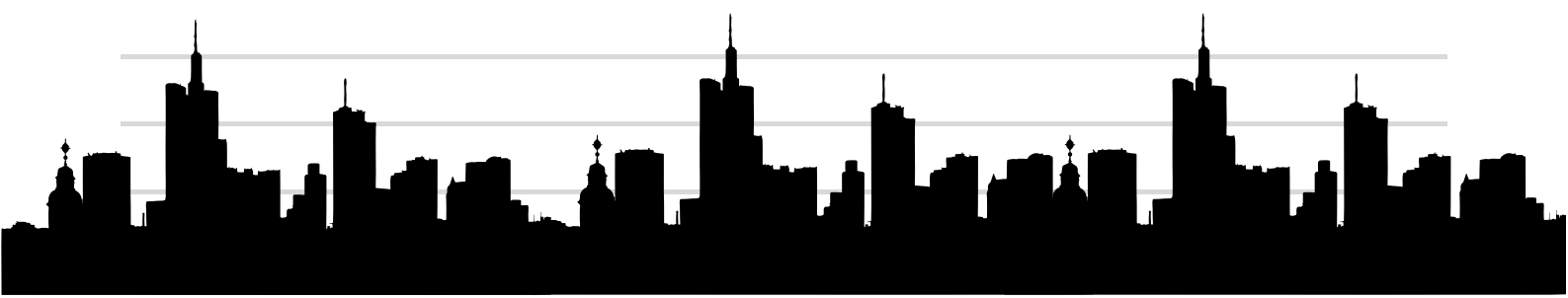
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