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The 3rd International Conference on Constructions and Building Engineering 2017

August 14 - 17, 2017

Palembang, Indonesia

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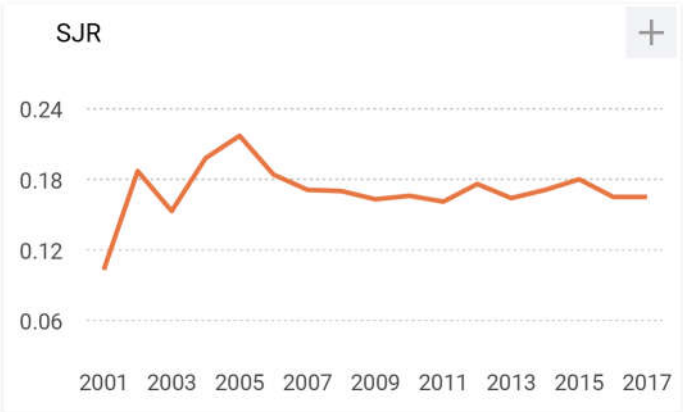

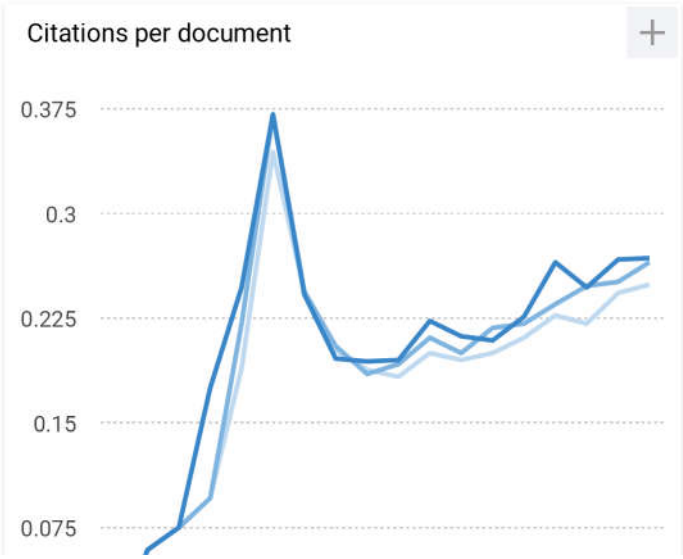

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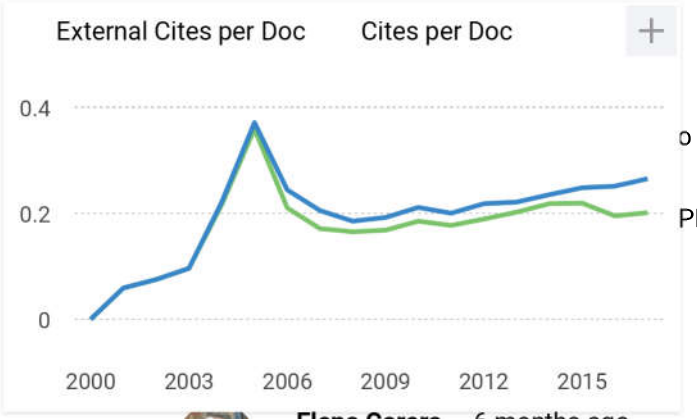

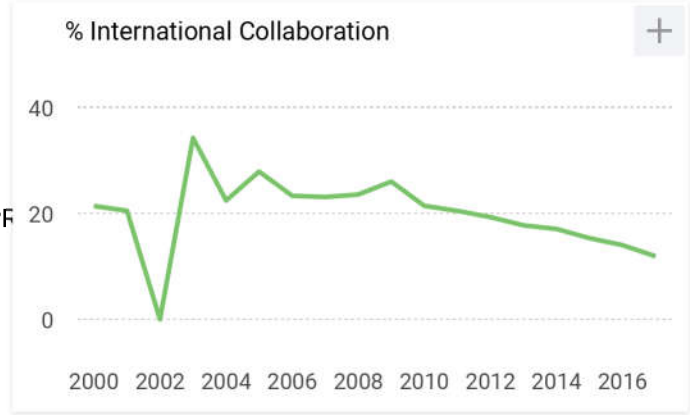

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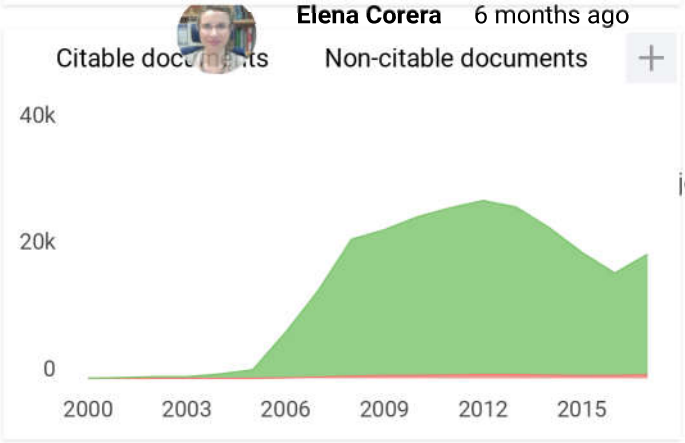

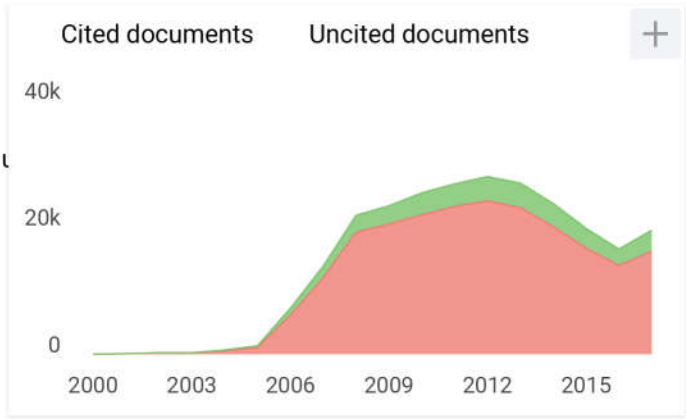

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Flexural strength of self compacting fiber reinforced concrete beams using polypropylene fiber: An experimental study

AIP Conference Proceedings **1903**, 020020 (2017); https://doi.org/10.1063/1.5011500

Ade Lisantono[1,a)], Baskoro Abdi Praja[2,b)], *and* Billy Nouwen Hermawan[3,c)]

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ABSTRACT

One of the methods to increase the tensile strength of concrete is adding a fiber material into the concrete. While to reduce a noise in a construction project, a self compacting concrete was a good choices in the project. This paper presents an experimental study of flexural behavior and strength of self compacting fiber reinforced concrete (RC) beams using polypropylene fiber. The micro monofilament polypropylene fibers with the proportion 0.9 kg/m^3 of concrete weight were used in this study. Four beam specimens were cast and tested in this study. Two beams were cast of self compacting reinforced concrete without fiber, and two beams were cast of self compacting fiber reinforced concrete using polypropylene. The beams specimen had the section of (180×260) mm and the length was 2000 mm. The beams had simple supported with the span of 1800 mm. The longitudinal reinforcements were using diameter of 10 mm. Two reinforcements of Ø10 mm were put for compressive reinforcement and three reinforcements of Ø10 mm were put for tensile reinforcement. The shear reinforcement was using diameter of 8 mm. The shear reinforcements with spacing of 100 mm were put in the one fourth near

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in the middle span. Two points loading were used in the testing. The result shows that the load-carrying capacity of the self compacting reinforced concrete beam using polypropylene was a little bit higher than the self compacting reinforced concrete beam without polypropylene. The increment of load-carrying capacity of self compacting polypropylene fiber reinforced concrete was not so significant because the increment was only 2.80 % compare to self compacting non fiber reinforced concrete. And from the load-carrying capacity-deflection relationship curves show that both the self compacting polypropylene fiber reinforced concrete beam and the self compacting non fiber reinforced concrete beam were ductile beams.

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August 14 - 17, 2017 Palembang, Indonesia

"Smart Constructions Toward Global Challenges"

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WELCOME MESSAGE FROM RECTOR OF SRIWIJAYA UNIVERSITY

Distinguished guest, respected participants

Ladies and Gentlemen

Dear all participants, welcome to Palembang, Indonesia. I am indeed honored to have all of you who have come from many parts of the world to the Third International Conference on Construction and Building Engineering (ICONBUILD 2017) during 14th – 17th August 2017 at Palembang, Indonesia.

This year's conference is organized by Universitas Sriwijaya in collaboration with Universiti Teknologi Malaysia (UTM). Please allow me in this occasion to deliver our kindness in hosting and organizing this conference. It is our great pleasure to see that the conference is effective media to link the engineers from many parts of the world, especially those with a commitment to advance sustainable development and environmental friendly buildings and infrastructures. I encourage all participants to participate actively in the interesting annual discussions over the next days. I wish everyone a successful and worthy conference.

The theme for ICONBUILD 2017 is 'Smart Constructions towards Global Challenges'. It is expected will be worthwhile platform for researchers and engineers to present their finding in the areas on multidisciplinary related to civil engineering and built environment issues for any global challenges. Also, it has provided an opportunity for the professionals and researchers to learn and share about the latest development and research in civil engineering which corresponds to Sriwijaya University's vision and mission to increase journal publishing in Civil Engineering Department.

I appreciated all the members of the organizing committee who have worked hard to prepare the conference and who has dedicated their valuable time to organize this conference. The conference committee expresses our gratitude and great appreciation towards all the authors, reviewers, and participants for the great contribution to ensure the success of this event. Finally, we would like to say thank you to all participants and have a nice day in Palembang.

Rector of Sriwijaya Univesity

Prof. Dr. Ir. Anis Saggaff, MSCE

WELCOME MESSAGE FROM DEAN OF ENGINEERING FACULTY OF SRIWIJAYA UNIVERSITY

I am very pleased to have the opportunity to welcome you to the Third International Conference on Construction and Building Engineering (ICONBUILD) 2017, which is hosted by Sriwijaya University and cooperated with Universiti Teknologi Malaysia. This conference is organized by Civil Engineering Department, with full support of the Faculty of Engineering, Sriwijaya University.

It is an honoured to have outstanding speakers from around the world. This international event gathers researchers, educators and experts from government, the private sector, various international organizations, academia and the civil society involved in the general areas of of civil engineering and built environment to disseminate their latest research results. I am confident that the ICONBUILD 2017 will be an excellent opportunity to exchange views and raise awareness of the importance of the two fundamental and linked topics of the conference (Engineeringand Environment) in enhancing the live in our country and worldwide.

Finally I would like to thank all those who have contributed to this Conference. I wish to express my gratitude to the Organizing Committee and the Scientific Committee for their diligence. The various sponsors are also thanked for their kind support.

Dean of Engineering Faculty of Sriwijaya Univesity

Prof. Ir. Subriyer Nasir, M.S., Ph.D

WELCOME MESSAGE FROM EXECUTIVE CHAIRMAN OF ICONBUILD 2017

On behalf of the organizing commitee, I am delighted to welcome you to the Third International Conference on Construction and Building Engineering (ICONBUILD 2017) during 14th to 17th August 2017 at Palembang, Indonesia. ICONBUILD 2017 is the biennial International conference organized by Sriwijaya University (UNSRI) and Universiti Teknologi Malaysia (UTM).

The theme for ICONBUILD 2017 is 'Smart Constructions towards Global Challenges'. It is hoped that this conference will be useful platform for researchers to present their finding in the areas on multidisciplinary related to civil engineering and built evironment issues. This conference will provide opportunities to exchange ideas, knowledge, and development of the latest research among the engineers and researchers.ICONBUILD 2017 received 260 submissions from 18 countries and 125 affiliations that were reviewed by ICONBUILD reviewers.

Please allow me to deliver our best regard to South Sumatera Governor, Ir. H. Alex Noerdin, S.H., for the help and support. We are very honored to have Prof. Datuk Ir. Dr. Wahid Omar (UTM, Malaysia), Prof. Dr. Ir. H. Anis Saggaff, MSCE (Sriwijaya University, Indonesia), Prof. Kohei Komatsu Dr. Agric. Sci. (Kyoto University, Japan), Prof. Dr. Mohammad Ismail (UTM, Malaysia), and Prof. Ir. Dr. Mahmood Md Tahir (UTM, Malaysia) as a keynote speakers.

The conference committee expresses its gratitude towards all the author, reviewers, and participants for the great contribution to enssure the success of this event. Finally, I sincerely thank all the members of the organizing committee who have worked hard to prepare the conference.

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KEYNOTE SPEAKERS

Prof. Datuk Ir. Dr. Wahid Omar
V.C. Universiti Teknologi Malaysia, Malaysia

Wahid Omar is a Professor of Structural Engineering at the Faculty of Civil Engineering, Universiti Teknologi Malaysia (UTM). He was appointed as the Vice-Chancellor of UTM in September 2013. He obtained his Ph.D.in Structural Engineering from the University of Birmingham, his Master's degree in Bridge Engineering from the University of Surrey, and his Bachelor of Science in Civil Engineering degree from the University of *Strathclyde,* United Kingdom. He is a Fellow of the Institution of Engineers Malaysia, a registered Professional Engineer with the Board of Engineers Malaysia and a member of various professional bodies. He is also an Honorary Member of the ASEAN Federation of Engineering Organization (AFEO).His areas of expertise include structural assessment, reinforced and pre-stressed concrete and ductility of high strength concrete and project management. Prior to his present appointment, he was the Deputy Vice-Chancellor (Development) (2011-2013) and the Director of the Office of Asset and Development (2008-2011). In his capacity as the then Director of the Office of Asset and Development, he was entrusted with a major task to manage UTM campus development projects worth RM1 billion.

Advocating Mindset for Cooperative Partnership for Better Future of Construction Industry

Construction industry players are known for their low acceptance on the changes. Hence, it is identified that the biggest challenge in the industry is changing the mindset. This paper highlights the importance of transformation in shaping for better future of the industry. Transformation favors innovation and progressive development in the industry and specifically in managing a project. Thus changes in mindset of players with an eye to the future and focus on what is coming are paramount in inculcating the transformation culture in construction eco-system.The key to the success of transformation is the collaborative and cooperative partnering which ensuring the performance of every stage of project delivery. The collaborative, cooperative, and concerted effort of all parties involved in the project create mutual understanding on mission and vision of project. Adopting healthy and harmonious project culture, implementing innovative procurement that emphasis on fair risk sharing. This cooperative partnership should be the future of the project undertaking in the construction industry.

Prof. Dr. Ir. Anis Saggaff, MSCE
Rector of Sriwijaya University, Indonesia

Prof. Dr. Ir. H. Anis Saggaff, MSCE is the Rector of Sriwijaya University, South Sumatera, Indonesia for period of 2015 – 2019. He was bord on Octorber 28th 1962. He got a bachelor degree in Civil Engineering at Sriwijaya University in 1986, obtained his Master of Science in Prestressed Structures in Civil Engineering Department at University of Kentucky USA in 1994, and awarded PhD in Steel Composite and Structure from Universiti Teknologi Malaysia (UTM) in 2007. He has been Lecturer in Civil Engineering Department of Engineering Faculty and a Researcher at Sriwijaya University since 1987. He becomes a Professor in the field of Cold Formed Steel science May 1, 2013. Prof. Dr. Ir. Anis Saggaff, MSCE is a head of Structure and Construction Research Laboratory (SCRL) Sriwijaya University. His research interests are steel, concrete, wood design, composite building structure and composite bridges design. His works have been published in many international and national journals. He also actively participates in national and international conference as Speakers, Steering Committee and Scientific Committee. He participated in several workshops overseas and domestic, such as Short Course; Laminated Wood for Construction in Kyoto, Japan (2002) which held by Wood Research Institute (WRI) University of Kyoto Japan (JSPS – LIPI).

Structural Aspects of Cold-Formed Steel Section Designed as U-Shape Composite Beam

Composite beam construction usually associated with old-style Hot-Rolled Steel Section (HRSS) has proven to act much better in compare with Cold-Formed Steel Section (CFSS) sections due to thicker section. However, the use of cold-formed steel section as composite beam is getting popular to replace HRSS in some aspects of design such as composite beam due to its advantages. The advantages such as lightweight, cost effective and easy to install have contributed to the use of cold-formed steel as a preferred construction material for composite beam design. There is a few technical data available regarding the application of composite systems that incorporates the use of CFSS, despite the potentials of the system in residential and light industrial constructions. This paper presents on experimental tests results which have been conducted using CFSS as composite beam. Composite action of CFSS arranged as double beam with Self-Compacting Concrete (SCC) slab are integrated together with bolted shear connectors were used. A full-scale test comprised of 3 proposed composite beam specimens with bolted shear connector spaced at 300mm interval of grade 8.8 was installed with single nut and washer on the CFS flange, cast to slab and tested till failed. The experimental test results show that the bolted shear connector possessed good ultimate strength and ultimate moment capacities for the proposed composite beam. It was therefore concluded that, bolted shear connectors of 16mm in diameter performed better than the rest of bolted shear connectors.

Prof. Kohei Komatsu, Dr. Agric. SCI
Reseacrh Institute for Suistainable Humanosphere (RISH), Kyoto University, Japan

Prof. Kohei Komatsu, Dr. Agric. SCI. is a Researcher at Laboratory of Structural Function, Research Institute for Sustainable Humanosphere at Kyoto University, Japan and Distinguished Professor of Nanjing Forestry University, Department of Timber Construction, College of Materials Science and Engineering, Nanjing Forestry University, China. He Obtain his Degree of "Doctor of Agriculture" with thesis titled "Application of Fracture Mechanics to Timber Adhesive Joints" in 1977 from Kyoto University. Professor Kohei Komatsu received "Fiscal 2004 Hideo Sugiyama Award" from Japan Timber Engineering Society, for the work titled as "Application and Popularization of Drift-Pinned Joints to Glulam Structures". During his involvement in research, publication and study for the last 40 years, he has published more than 120 indexed journals domestic and international with 371 citations and also he is an active lecturer in many university around the world. His main area of research and expertise is timber structures and joints. His experience in International Conferences is heavily acquired including as a Chairman, Invited speaker and Key-note speaker. He was entrusted as a Principle researcher of the Grant-in-aid for Scientific Research-B2 with the total amount of budget of ¥16,000,000 "Development and Analyses on Strength Enhancement Mechanism of Innovative Wooden Post & Beam Structures in Which Material's Characteristics are Optimized"

Development of Stiffer and Ductile Glulam Portal Frame

Portal frame structures, which are constituted of straight glulam beams and columns connected semi-rigidly by steel insert gusset plate with a lot of drift pins, were the first successful wooden structures widely used in Japan. In addition to this connection system, the author invented also a new type of jointing devise for glulam structures named as "Lagscrewbolt" which had a full threaded portion at inner part to grip wooden member as well as another thread part at the end of shank to connect with other member. The initial type of "Lagscrewbolt" was successfully applied to a various types of glulam buildings which could be rapidly built-up on construction site. Its strength performance, however, was rather brittle therefore the improvement of the ductility was a crucial research subject. In order to give a sufficient ductility on the "Lagscrewbolted joint system", so-called "Slotted Bolted Connection" concept was adopted for making use of large energy dissipation characteristics due to high-tension bolted steel connection with slotted bolt holes. Static & dynamic performance of glulam portal frame specimens was evaluated by static cyclic loading test as well as shaking table test. Current latest form of the jointing system can show very high ductility as well as stable hysteretic cyclic loops by inserting brass-shim between steel-to-steel friction interface.

Prof. Dr. Mohammad Ismail
Universiti Teknologi Malaysia, Malaysia

Prof. Dr. Mohammad Ismail is a Professor at Faculty of Civil Engineering, Universiti Teknologi Malaysia (UTM) where he has been a faculty member since 1986. Currently, he is Deputy Dean of Research, Innovation, Community and Networking at the faculty. Prof. Dr. Mohammad Ismail obtained his B.Sc. (Hons) Civil Eng. from University of Strathclyde, Glasgow, UK, M.Sc. (Eng) from University of Liverpool, UK and Ph.D. from Aston University, UK. His research interests include Concrete Durability, Corrosion of Reinforcement, NDT & Structural Forensic Engineering, Sustainable Construction Materials and Environmental Engineering. With this knowledge, he involved in many consultancy works testing and evaluating bridges, buildings, pump house and stadium. He has published more than 80 papers for various journals, conference proceedings and keynote address. Among other positions he held in UTM for the past 30 years were:, Head of Department of Structures and Materials, Head of Laboratory and Chairman of International Conference and Committees. He is currently an active member of BEM, MSSA, MySET, PERINTIS and PERKOM.

Effects of Climate and Corrosion on Concrete Behaviour

Corrosion of steel is a damaging agent that reduces the functional and structural responsibilities of reinforced concrete structures. Accordingly, reinforced concrete structures exposed to environments that are prone to concrete carbonation or chloride attack coupled with high temperature and relative humidity suffer from accelerated corrosion of reinforcing material. Also, literature proves that climate influences corrosion of concrete, and suggests investigation of impact of corrosion on concrete based on climate zone. Therefore, this paper presents the effects of climate and corrosion on concrete behaviour, using bond strength of concrete as a case study. Concrete specimens were prepared form concrete mix that was infested with 3.5 kgm^{-3} of sodium chloride to accelerate corrosion. The specimens were cured in 3.5% sodium chloride water solution for 28 days before subjecting them to exposure conditions of concrete. Pull-out tests were conducted at time intervals for one year to measure the impact of exposure condition and corrosion on bond strength of concrete. The results show reduction of bond strength of concrete by 32%, 28% and 8% after one year of subjection of the specimens to the unsheltered natural climate, sheltered natural climate, and laboratory ambient environment respectively. The findings indicate that the climate influences corrosion of steel in concrete. Corrosion of the reinforcing steel in the concrete produces rust within the concrete and breeds unwanted tensile stress prior to concrete volumetric expansion.

Prof. Ir. Dr. Mahmood Md Tahir
Universiti Teknologi Malaysia, Malaysia

Prof. Ir. Dr. Mahmood Md. Tahir joined UTM in May 1985 as Assistant Lecturer "A" after completing his first degree from University of Iowa, USA. He taught diploma students from May 1985 to 1988 before pursuing his Master degree at University of Nebraska Lincoln, USA. After completing his master degree (MSc) in Structure Engineering, he continued to serve Faculty of Civil Engineering, UTM from 1989 to 1993. He continued his study for PhD in January 1994 at University of Warwick, United Kingdom and managed to complete his study in May 1997. During his involvement in research and publication for the last 20 years, he has published 105 indexed journals with H-index of 9 and 274 citations. His main areas of research are steel structures, composite structures, and concrete structures. He also has registered as member of Institute Engineer Malaysia (MIEM). At present, he is a Senior Director of Institute for Smart Infrastructure and Innovative Construction, Universiti Teknologi Malaysia.

Economic Aspects of Interlocking Hollow Brick System Designed for Industrialized Building System

Construction industry has moved forward into a technology driven where a transition is in progress from conventional method to a more advanced and mechanised system known as the Industrialised Building System (IBS). However, the need to implement the IBS should be well understood by all construction players such as designer, architect, contraction, erectors and construction workers. Therefore, there is a need to educate all these construction players which should be spearheaded by authorities such as Construction Industrial Development Board where enforcement trough building by laws as well as initiative to those that adopt the IBS in their construction. This paper reports on economic aspects of using interlocking hollow brick system in construction as an alternative method offered for Industrialized Building System. The main objective is to address the economic aspects of using interlocking block system in terms of time, costs, and utilization of manpower and to present some of the experimental tests results related to Interlocking Hollow Brick System (IHBS). Example of savings from the use of IHBS is presented in this paper by comparing the construction of two storey terrace house with build-up area of about 200 square meter with conventional construction method of typical reinforced concrete construction (RCC) compared to IHBS. The comparison shows that the implementation of IHBS can reduce construction time, cost, and utilization of man power up to 26.6% compared to the conventional method. Moreover, the construction time using IHBS can also be reduced by up to 50% as compared to the conventional construction.

KEYNOTE SPEECHES

Tuesday, 15 August 2017

08.00 – 10.00	KEYNOTE SPEAKER I

Advocating Mindset for Cooperative Partnership for Better Future of Construction Industry
Prof. Datuk Ir. Dr. Wahid Omar, Universiti Teknologi Malaysia, Malaysia

Structural Aspects of Cold-Formed Steel Section Designed as U-Shape Composite Beam
Prof. Dr. Ir. Anis Saggaff, MSCE, Sriwijaya University, Indonesia

Development of Stiffer and Ductile Glulam Portal Frame
Prof. Kohei Komatsu, Dr. Agric. SCI, Research Institute for Suistainable Humanosphere (RISH), Kyoto University, Japan

10.15 – 12.00	KEYNOTE SPEAKER II

Effects of Climate and Corrosion on Concrete Behaviour
Prof. Dr. Mohammad Ismail, Universiti Teknologi Malaysia, Malaysia

Economic Aspects of Interlocking Hollow Brick System Designed for Industrialized Building System
Prof. Ir. Dr. Mahmood Md Tahir, Universiti Teknologi Malaysia, Malaysia

PARALLEL SESSIONS

SUBTOPIC: SCE-001 – SCE-046

Ballroom 2 - Session I - 15 August 2017 (13.00 - 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	SCE-001	Experimental Study on The Impact of Rain Water Puddle of Asphalt Pavement Structure	Firdaus Chairuddin	Civil Engineering, Hasanuddin University
2	13.15 - 13.30	SCE-002	The Effectiveness of Nonlinear Acoustic Testing for Evaluation of Damage in Concrete being Exposed at Elevated Temperature	Rabah Hammoud and Hatem Mrad	Ecole Polytechnique de Montreal, Montreal (Qc), Canada.
3	13.30 - 13.45	SCE-003	Influence of Partial Pre-stressing Ratio Level to the Energy Dissipation and Ductility of Reactive Powder Concrete Beam-Column Joint Sub-assemblages	Siti Aisyah Nurjannah, Bambang Budiono, Iswandi Imran, and Saptahari Sugiri	Balai Diklat PUPR II, Ministry of Public Works and People Housing
4	13.45 - 14.00	SCE-004	Analysis of rotational and sliding collapse modes of masonry arches via Durand-Claye's method	Riccardo Barsotti, Danila Aita, and Stefano Bennati	Department of Civil and Industrial Engineering, University of Pisa, Largo Lazzarino, 56122 Pisa, Italy
5	14.00 - 14.15	SCE-005	Construction Method And Performance of Bugis Traditional House In Wind Disasters	Hartawan Madeali, B. Suhendro, E.Pradipto, and A.Kusumawanto	Architecture Department, Faculty of Engineering, Hasanuddin University, Makassar, Indonesia
6	14.15 - 14.30	SCE-006	Predicting Shear Critical Behavior of High-Strength Reinforced Concrete Columns Using Finite Element Methods	Harun Alrasyid, Fahrudin Safi, Data Iranata, Pujo Aji, and Yu Chen-Ou	Civil Engineering Department, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
7	14.30 - 14.45	SCE-007	Arizu Sulaiman, Noraini Mohd Salleh, Nuraziyati Sukardi, Tan Cher Siang and Anis Saggaff	Experimental Evaluation of Composite Beam-to-Column Joint Using Cold-Formed Steel Sections	UTM Construction Research Centre (UTM-CRC), Faculty of Civil Engineering, Universiti, Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia
8	14.45 - 15.00	SCE-008	Altho Sagara, Adrian Firdaus, Handrawan Anggara and Winda Herviani Putri	Existing Structure Modelling and Retrofitting of Bridge Column Defect	Civil Engineering Department, Faculty of Engineering, Parahyangan Catholic University, Bandung, Indonesia

Ballroom 2 - Session II - 15 August 2017 (15.15 – 17.15)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	SCE-009	Increased of Capacity Integral Bridges with Reinforced Concrete Beams for Single Span	N. Retno Setiati and Septinurriandiani	Institute of Road Engineering, and Development Agency, The Ministry of Public Works and Public Housing, Indonesia
2	15.30 - 15.45	SCE-010	Wind Tunnel Test of Musi VI Bridge	Robby Permata, Matza Gusto Andika, Syariefatunnisa,Eri Risdhiawan, Budi Hermawan, dan Indra Noordiana	Universitas Bung Hatta, Civil Engineering Department, Sumatera street – Ulak Karang, Padang 25133, Indonesia
3	15.45 - 16.00	SCE-011	Feasibility of ISO Shipping Container as Transitional Shelter- A Review	Philip Ling Chie Hui and Tan Cher Siang	Faculty of Civil Engineering, Universiti Teknologi Malaysia, Johor Bahru, Malaysia
4	16.00 - 16.15	SCE-012	Image-Based Non-Destructive Evaluation Method for Building Condition Assessment	Hui Lin Ng, Siow Wei Jaw, Mazlan Hashim, Poi Ngian Shek, and Kar Seong Lim	Geoscience & Digital Earth Centre (INSTeG), Research Institute of Sustainable Environment (RISE), Universiti Teknologi Malaysia (UTM), Johor Bahru, Malaysia
5	16.15 - 16.30	SCE-013	Effects of bleeding on corrosion of horizontal steel bars in reinforced concrete column specimen	Sandra Nevy, Keiyu Kawaai, Isao Ujike, Nakai Ippei, and Nsama Willick	Department of Civil and Environmental Engineering, Ehime University, 3, Bunkyocho, Matsuyama, Ehime, Japan
6	16.30 - 16.45	SCE-014	Construction Cost Index : A Case Study In Malaysia	Chai Chang Saar, Loo Siaw Chuing, Aminah Md Yusof, Rozana Zakariaand Theong May Chuan	Department of Structure and Materials, Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia
7	16.45 - 17.00	SCE-015	Experimental Behaviour of Beam-Column Connection using Cold-Formed Steel Sections with Rectangular Gusset-Plate	K.M. Aminuddin, Anis Saggaff, and Mahmood Md Tahir	Civil Engineering Department, Faculty of Engineering, Sriwijaya University, Indonesia
8	17.00 - 17.15	SCE-016	Implementation of Industrialized Building System (IBS) in West Sumatra Construction Industry	Alzahri, Rosli Mohamad Zin, Indra Farni, Edrizal, Elfi, and Saeed Balubai	Faculty of Civil Engineering, Universiti Teknologi Malaysia 81310 Skudai, Johor Bahru, Malaysia

Ballroom 2 - Session III - 16 August 2017 (08.00 – 10.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	08.00 - 08.15	SCE-017	Bond Behavior between Embedded Through-Section Bars and Concrete	Linh Van Hong Bui, Boonchai Stitmannaithum, Tamon Ueda and Pitcha Jongvivatsakul	Department of Civil Engineering, Chulalongkorn University, Thailand
2	08.15 - 08.30	SCE-018	Bonding Capacity of GFRP Sheet on Strengthened Reinforced Concrete Beams after Sea Water Immersion	Mufti Amir Sultan and Rudy Djamaluddin	Civil Engineering Department, Khairun University, Gambesi Ternate, Indonesia
3	08.30 - 08.45	SCE-019	Detail Finite Element Formulations for Nonlinear Semi-rigid Steel Frame	Shahrin Mohammad, Ahmad Baharuddin Abd Rahman, Yeong Huei Lee, Chau Khun Ma, Ahmad Zaidon Rais, and Sariffuddin Saad	Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia
4	08.45 - 09.00	SCE-020	Cyclic Behaviour of Expanded Polystyrene (EPS) Sandwich Concrete Walls	Ari Wibowo	Department of Civil Engineering, Faculty of Engineering, Brawijaya University, Malang, 65149, Indonesia
5	09.00 - 09.15	SCE-021	Evaluation of Different Seismic Analysis Procedures for Concrete Moment-Resistant Frames with Horizontal Re-entrant Corners Irregularity	Anis S. Shatnawi and Laith I. Gharaibeh	Associate Professor, Department of Civil Engineering, The University of Jordan, Amman, Jordan
6	09.15 - 09.30	SCE-022	Sensitivity Analysis of Tall Buildings in Semarang, Indonesia Due to Fault Earthquakes with Maximum 7 MW	Windu Partono, Bambang Pardoyo, Indrastono Dwi Atmanto, Lisa Azizah and Rouli Dian Chintami	Civil Engineering Department, Diponegoro University. 50275 Semarang, Indonesia
7	09.30 - 09.45	SCE-023	Confinement Hoops of Compression Zone in Beam Under Cyclic Loading	Yulita Arni Priastiwi, Iswandi Imran, Nuroji and Arif Hidayat	Civil Engineering Department, Faculty of Engineering, Diponegoro University, Semarang, Indonesia
8	09.45 - 10.00	SCE-024	Parametric Study of Engineering Wood Encased Concrete-Steel (EWECS) Composite Columns using 3D FE Modelling	Fauzan, Ruddy Kurniawan, and Zev Al Jauhari	Department of Civil Engineering, Engineering Faculty, Andalas University, Indonesia

Ballroom 2 - Session IV - 16 August 2017 (10.15 – 12.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	10.15 - 10.30	SCE-025	Experimental Investigation of FlexuralBehaviour of U-ShapedConcreteSubgrade Panel	Nur AizaShuhada Kamarudin, Azman Mohamed, HasananMd Nor, and Nur Hafizah A. Khalid	Department of Highway and Transportation, UniversitiTeknologi Malaysia, 81310 Skudai Johor, Malaysia
2	10.30 - 10.45	SCE-026	Performance of Bamboo Wulung Reinforced Concrete Beams	Agus Setiya Budi, AP Rahmadi, and Endang Rismunarsi	Universitas Sebelas Maret, Surakarta, Indonesia
3	10.45 - 11.00	SCE-027	Foamed Concrete Containing Rice Husk Ash as Sand Replacement: Experimental Study on Compressive Strength	Rahmat Hidayah Muhammed Rum, Zainorizuan Mohd Jaini, Koh Heng Boon and Siti Amirah Azra Khairuddin	Faculty of Civil and Environmental Engineering, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Johor, Malaysia
4	11.00 - 11.15	SCE-028	Wind Tunnel Study of Wind Load on Chimney at Difference Wind Direction by Considering Surrounding Buildings	Matza Gusto Andika, Syariefatunnisa, and Wibawa Purabaya	National Laboratory for Aerodynamics, Aero elastics, and Aero Acoustics Technology
5	11.15 - 11.30	SCE-029	Compressive Strength Models of Repaired Concrete Structures	Nazirah Mohd Apandi, Chau-Khun Ma, Abdullah Zawawi Awang, Wahid Omar	Department of Structure and Materials, Faculty of Civil Engineering, Universiti Teknologi, Malaysia, Malaysia
6	11.30 - 11.45	SCE-030	Application of the cementitious grouts on stability and durability of semi-flexible bituminous mixtures	Muhammad Karami	Civil Engineering Department, Faculty of Engineering, Lampung University, Bandar Lampung, Indonesia
7	11.45 - 12.00	SCE-031	Flexural Performance of Steel Fibre Reinforced Concrete (SFRC) Ribbed Slab with Various Topping Thicknesses	Fadhillah Abdul Rahman, Afidah Abu Bakar, and Mohd Hisbany Mohd Hashim	Faculty of Civil Engineering, Universiti Teknologi Mara (UiTM), Shah Alam, Selangor, Malaysia

Ballroom 2 - Session V - 16 August 2017 (13.00 – 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	SCE-032	Flexural strength and behaviour of SFRSCC ribbed slab under four point bending	Hazrina Ahmad	Faculty of Civil Engineering, Universiti Teknologi MARA, 40450 Shah Alam, Selangor
2	13.15 - 13.30	SCE-033	Headed Reinforcement in Concrete Structure : State of The Art	Harun Alrasyid, Yehezkiel Yogananta, Munarus Suluch, and Data Iranata	Civil Engineering Department, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
3	13.30 - 13.45	SCE-035	Structural Performance of Cold-formed Wall Frame under Combined Gravity and Lateral Loading	Shek Poi Ngian, Lim Teck Thong, and Mahmood Md Tahir	UTM Construction Research Centre, Faculty of Civil Engineering, Univerisiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor
4	13.45 - 14.00	SCE-036	Numerical study on the modification of long links in eccentrically braced frame	Musbar, Bambang Budiono, Dyah Kusumastuti, and Herlien D. Setio	Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung, Ganesa 10, 40132 Bandung, Indonesia
5	14.00 - 14.15	SCE-037	An Experimental Study of Bending Behaviour of Double Channel and Hollow Sections of Light Gauge Steel	Sabril Haris, Andrey Prasetio, Rendy Thamrin, and Hazmal Herman	Department of Civil Engineering, Andalas University, Indonesia
6	14.15 - 14.30	SCE-038	Issues of Shear Deformation Measurement in Experimental Studies	Basyaruddin and Min Yuan Cheng	Dept. of Civil Engineering, Institut Teknologi Kalimatan, Balikpapan, Indonesia
7	14.30-14.45	SCE-039	Prediction Of Shear Capacity Of Shear Connector In Cold-formed Composite Beam Encased With Self-compacting Concrete	Achmad Abraham S. A., Anis Saggaff, and M. M. Tahir	Civil Engineering Department, Faculty of Engineering, Sriwijaya University, Indonesia

Ballroom 2 - Session VI - 16 August 2017 (15.15 – 17.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	SCE-040	Effect of Bracing Cross-Sectional Installation Position On Dissipation Energy At Concentrically Braced Frames Type X Bearing Lateral Forces	Primazola and Rahmat bin Alifiardi	Civil Engineering Departement, Padang State University
2	15.30 - 15.45	SCE-041	Finite Element Modeling of Reinforced Large-Opening on the Web of Steel Beam Considering Axial Forces	Made Sukrawa	Civil Egr. Udayana University
3	15.45 - 16.00	SCE-042	A Comparative Study on Different Burning Method of Sewage Sludge Ash in Mortar Brick with Eggshell Powder as Additive	Doh Shu Ing and Muhammad Aizat Azed	Faculty of Civil Engineering & Earth Resources, University Malaysia Pahang, Lebuh Raya Tun Razak, 26300 Kuantan, Pahang, Malaysia
4	16.00 - 16.15	SCE-043	Short-term Deformation Model Based on Surrounding Relative Humidity of High Performance Concrete Plate under Humid Tropical Weathe	Chatarina Niken, Elly Tjahjono, F.X. Supartono, Amril Maruf ,S, and Aleksander P	University of Lampung, Civil Department, Faculty of Technology, Lampung, Indonesia
5	16.15 - 16.30	SCE-044	Prediction of Pavement Life Using Influence Function and Peak Influence Function	R. Buhari and Rohani M.M	Smart Driving Research Center, Faculty of Civil and Environmental Engineering, Universiti Tun Hussien Onn Malaysia, Batu Pahat, Johor, Malaysia.
6	16.30 - 16.45	SCE-045	Investigation of The Dynamic Behavior of The Coupled Shear Wall Systems	Elgohary, H and Ghulman, H	Umm Al-Qura University, Makkah, KSA
7	16.45 - 17.00	SCE-046	Determination Residual Strength Concrete of Post-Fire Using Ultrasonic Pulse Velocity	Wahyu Wuryanti	Research Institute for Housing and Human Settlements, Ministry of Public Works and Housing, Indonesia

PARALLEL SESSIONS

SUBTOPIC: SIM-001 – SIM-027, SCE-047 – SCE-053, GSC-016 – GSC-024

Ballroom 1 - Session I - 15 August 2017 (13.00 – 15.00)

No.	Time	Paper ID	Title	Authors	Affiliation
1	13.00 - 13.15	SIM-001	Behavior of Bagasse Ash-Calcium Carbide Residue stabilized Soil with Fiber inclusion	John Tri Hatmoko and Hendra Suryadharma	Department of Civil Engineering , Universitas Atma Jaya Yogyakarta, Indonesia
2	13.15 - 13.30	SIM-002	Preliminary Experimental Study of Making Geopolymer Paste as Passive Fire Protection System	Fransisca Maria Farida, Adang Surahman, Ananta Sofwan, and Rino Rakhmata Mukti	Department of Civil Engineering, Civil Engineering and Environmental Faculty Institut Teknologi Bandung, Bandung
3	13.30 - 13.45	SIM-003	Mechanical Properties of Concrete Containing 100% Recycled Homogeneous Ceramic Aggregates	Nor Hasanah Abdul ShukorLim, Mostafa Samadi, Nur Farhayu Ariffin, Hosein Mohammadhosseini, Nur Hafizah Abd Khalid, Abdul Rahman Mohd. Sam	UTM Construction Research Centre, Institute for Smart Infrastructure and Innovative Construction, Faculty of Civil Engineering, Universiti Teknologi Malaysia,81310, Johor, Malaysia
4	13.45 - 14.00	SIM-004	Mechanical Properties of Cement Concrete Composites Containing Nano-metakaolin	Steve Wilben Macquarie Supit, RilyaRumbayan, and Adriana Ticoalu	Manado State Polytechnic, Department of Civil Engineering, North Sulawesi, Manado, Indonesia
5	14.00 - 14.15	SIM-005	Effects of Aggregate Gradation on Cracking Performance of Vietnamese Wearing Course Mixtures at Low Temperature	Nhat Thanh Tran and Osamu Takahashi	Department of Civil and Environmental Engineering, Nagaoka University of Technology, Niigata, Japan
6	14.15 - 14.30	SIM-006	Experimental Study on 60 MPa Steel-Fiber Concrete	Sisi Nova Rizkiani, James Saputra, and Johannes Adhijoso Tjondro	CivilEngineering Department, Faculty of Engineering, Parahyangan Catholic Unversity, Bandung, Indonesia
7	14.30 - 14.45	SIM-007	The Developing of Elastic Modulus Measurement to Asphalt Concrete Using Compressive Strength Test	Arief Setiawan, Latif Budi Suparma , and Agus Taufik Mulyono	Civil and Environmental Engineering Department, Faculty of Engineering, Universitas Gadjah Mada
8	14.45 - 15.00	SIM-008	Mudflow Utilization for Construction Materials of Tertiary Irrigation Canal Lining	Subandiyah Azis and Kustamar	National Institute of Technology Malang, East Java, Indonesia

Ballroom 1 - Session II - 15 August 2017 (15.15 – 17.15)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	SIM-009	The Effect of water cement ratio on Fresh, Hardened, and Microstructure of Self-Compacting Concrete with Rice Husk Ash	Saloma, Hanafiah, and Victor	Civil Engineering Department, Faculty of Engineering, Sriwijaya University
2	15.30 - 15.45	SIM-010	Characteristics of Foamed Concrete Utilizing Rice Husk Ash with Foam Percentage Variation	Saloma, Hanafiah, and Tiara Maelta Amanda	Civil Engineering Department, Faculty of Engineering, Sriwijaya University
3	15.45 - 16.00	SIM-011	Effect of Ratio Sand Aggregate and Dosage of Admixture on High Strength Concrete Properties	Mukhlis Sunarso, Gambiro Soeprapto and Ferryandy Murdono	Senior Researcher, PT Wijaya Karya Beton, Tbk, Bekasi 17411, Indonesia
4	16.00 - 16.15	SIM-012	Development of Rubberized Asphalt By Using Liquid And Solid Natural Rubber	Yusep Firdaus, Ronny Yohaness, R. Anwar Yamini, R.A. Sri Martini	Pusjatan, Jl. AH. Nasution No. 264 Bandung
5	16.15 - 16.30	SIM-013	Warm Mix of Asbuton Modified Asphalt with Beewax-base Additive	Tedi Santo Sofyan, R Anwar Yamin, Imam Aschuri, R.A Sri Martini	Pusjatan, Jl. AH. Nasution No. 264 Bandung
6	16.30 - 16.45	SIM-014	Properties of Polymer Concrete Containing Active Micro Filler of Palm Oil Fuel Ash	Nur Hafizah A. Khalid, Abdul Rahman Mohd.Sam, Azman Mohamed, Nor Hasanah Abdul Shukor Lim and Nur farhayu Ariffin	Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor
7	16.45 - 17.00	SIM-015	The Utilization of Industrial Waste as Aggregate Admixture in the Making of Concrete	Siti Ulfah, Meassa Monikha Sari, and Dessy Triana	Department of Civil Engineering, Faculty of Engineering, Universitas Serang Raya
8	17.00 - 17.15	SIM-016	The Behavior of Self-Compacting Concrete (SCC) with Bagasse Ash	Hanafiah, Saloma, and Putri Nurul Kusuma W	Civil Engineering Department, Faculty of Engineering, Sriwijaya University

Ballroom 1 - Session III - 16 August 2017 (08.00 – 09.45)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	08.00 - 08.15	SCE-047	Flexural Strength of Self Compacting Fiber RC Beams using Polypropylene Fiber: Experimental Study	Ade Lisantono, Baskoro Abdi Praja and Billy Nouwen Hermawan	Department of Civil Engineering, Universitas Atma Jaya Yogyakarta, Jln Babarsari 44, Yogyakarta, Indonesia
2	08.15 - 08.30	SCE-048	Behavior of Rubber Base Isolatator with Various Shape Factors	Tavio, Hidajat Sugihardjo, Agung Purniawan, and Yudha Lesmana	Department of Civil Engineering, Sepuluh Nopember Institute of Technology (ITS), Surabaya, Indonesia
3	08.30 - 08.45	SCE-049	Experimental study on the strength of double shear timber connection using bamboo dowel fastener	Buan Anshari, Wayan Sugiartha, Fathmah Mahmud, and Pathurahman	Department of Civil Engineering, Faculty of Engineering, Mataram University, Jl Majapahit 62 Mataram, NTB, Indonesia
4	08.45 - 09.00	SCE-050	Behavior of Modified Long Links with Supplemental Double Stiffeners on Eccentrically Braced Frames	Musbar, Bambang Budiono, Dyah Kusumastuti and Herlien D. Setio	Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung, Ganesa 10, 40132 Bandung, Indonesia
5	09.00 - 09.15	SCE-051	The Study of Fatigue Crack Initiation in the Rotary Cement Kiln under Cyclic Loading using Non-Linear Finite Element Method	Hasan Basri, Irsyadi Yani, Jimmy D. Nasution, Akbar Teguh Prakoso	Mechanical Engineering Department, Faculty of Engineering, Universitas Sriwijaya, Inderalaya, Indonesia
6	09.15 - 09.30	SCE-052	Analysis Of Offshore Platforms Lifting With Fixed Pile Structure Type (Fixed Platform) Based On ASD89	Agus Sugianto and Andi Marini Indriani	Civil Engineering Departement, Balikpapan University, Balikpapan, East Kalimantan
7	09.30 - 09.45	SCE-053	Finite Element Analysis of Composite Beam-to-Column Connection with Cold-Formed Steel Section	Muhammad Firdaus, Anis Saggaff, and Mahmood Md Tahir	Civil Engineering Department, Faculty of Engineering, UniversitasSriwijaya, Indonesia

Ballroom 1 - Session IV - 16 August 2017 (10.15 – 11.45)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	10.15 - 10.30	SIM-017	The Effect of w/c Ratio on Microstructure of Self-Compacting Concrete (SCC) with Sugarcane Bagasse Ash (SCBA)	Hanafiah, Saloma, and Khoirunnisa Nur Amalina	Civil Engineering Department, Faculty of Engineering, Sriwijaya University
2	10.30 - 10.45	SIM-018	Influence of Hot Asphalt Mixture Using Asbuton on Road Composite Pavement	Abdul Gaus, Muhumaad Darwis, and Imran	Civil Engineering Department of Civil Engineering, Faculty of Engineering Khairun University - Ternate
3	10.45 - 11.00	SIM-019	The Curing Method Influence on Mechanical Behavior of Reactive Powder Concrete	Ika Bali and Wilson Kurnia	Department of Civil Engineering, Tarumanagara University, jl. Letjen. S. Parman No.1, Jakarta 11440, Indonesia
4	11.00 - 11.15	SIM-020	Synthesis of tobermorite structure with admixture of non-traditional raw materials	Vit Cerny, Jan Fleischhacker, Magdalena Kocianova, and Rostislav Drochytka	University of Technology, Faculty of Civil Engineering, Veveri 95, 602 00 Brno, Czech Republic
5	11.15 - 11.30	SIM-021	Influence of Bottom Ash of Palm Oil on Compressive Strength of Concrete	Andika Ade Indra Saputra, Basyaruddin, and Muhamad Hasby Laksono	Dept. of Civil Engineering, Institut Teknologi Kalimantan, Balikpapan, Indonesia
6	11.30 - 11.45	SIM-022	Repeatability of Reclaimed Asphalt Pavement as Related to Properties of Bitumen	Mohd Khairul Idham, Mohd Rosli Hainin, Haryati Yaacob, M. Naqiuddin M. Warid, Othman Che Puan, Norhidayah Abdul Hassan, and Rachmat Mudiyono	Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia
7.	11.45 - 12.00	SIM-023	Rutting Performance of Cold Stone Mastic Asphalt	M. Naqiuddin M. Warid, Mohd Rosli Hainin, Haryati Yaacob, Md. Maniruzzaman B. A. Aziz, Mohd Khairul Idham, Norhidayah Abdul Hassan, Othman Che Puan	Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia

Ballroom 1 - Session V - 16 August 2017 (13.00 – 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	SIM-024	The influence of using Quicklime and Mount Sinabung Ash as Stabilizer in Clay by California Bearing Ratio (CBR)	Ika Puji Hastuty, Tri Alby Sofyan and Roesyanto	Civil Engineering Department, Universitas Sumatera Utara, Medan, Indonesia
2	13.15 - 13.30	SIM-025	The Mechanical Properties Of Modify Concrete With Eucheuma Cottoni	Izni Syahrizal B. Ibrahim, Norhafizan B Majid, Noor Nabilah Bt Sarbini, Zainul Akmar B. Zakaria, and Mohd Hanim B Osman	Forensic Engineering Centre, Institute for Smart Infrastructure and Innovative Construction, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor, Malaysia
3	13.30 - 13.45	SIM-026	The protection of masonry blocks with using hydrophobization before load due to increased moisture	Novak Vítězslav and Zach Jiří	Brno University of Technology, Faculty of Civil Engineering, Centre AdMaS, Purkyňova 139, 612 00 Brno, Czech Republic
4	13.45 - 14.00	SIM-027	The Potential Use of Silica Sand as Nanomaterials for Mortar	N. Retno Setiati	Institute Road of Engineering, Research and Development Agency, The Ministry of Public Works and Public Housing, Indonesia
5	14.00 - 14.15	GSC-002	The Effect of Styrofoam Addition into HRS-Base on Marshall Characteristics	Elsa Eka Putri and Ariefky Dwinanda	Civil Engineering Department, Engineering Faculty, University of Andalas, West Sumatera, Indonesia
6	14.15 - 14.30	GSC-016	Assessing The Moisture Susceptibility of Aggregates with Los Angeles Abrasion Test	Adelia Dwidarma Nataadmadja, Oki Setyandito, Eduardi Prahara, and Ida Riyanti	Civil Engineering Department, Faculty of Engineering, Bina Nusantara University, Jl. K.H. Syahdan No. 9, Jakarta, Indonesia 11480
7	14.30-14.45	GSC-018	Preliminary Study of Pervious Concrete with the Addition Chemical Admixture Type B	Rahmi Karolina, M.Agung Putra Handana, and Zulfikar	Universitas Sumatera Utara, Jl. Perpustakaan No. 1 Kampus USU, Medan, Indonesia

Ballroom 1 - Session VI - 16 August 2017 (15.15 – 17.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	GSC-017	Advantage of Using High Strength Self Compacting Concrete for Precast Product	Ferryandy Murdono, Winda Agustin, Gambiro Soeprapto, and Mukhlis Sunarso	Research and Development Department, PT Wijaya Karya Beton, Tbk, Gedung JW, Jalan Raya Jatiwaringin 54, Pondok Gede, Bekasi 17411, Indonesia
2	15.30 - 15.45	GSC-019	The Correlation of Urban Heat Island in Tropical Middle-Class Housing	Zuber Angkasa Wazir	Department of Architecture. Muhammadiyah University of Palembang, Palembang 30263, Indonesia
3	15.45 - 16.00	GSC-020	Demarcation study on RAP contents in recycled HMA mixtures for wearing course in asphalt pavements	Bereket Samuel and Osamu Takahashi	Department of Civil and Environmental Engineering, Nagaoka University of Technology, Niigata, Japan
4	16.00 - 16.15	GSC-021	Pavement Life Variation with Material Characteristics, Road Profiles and Environmental Effects	R. Buhari and Rohani M.M	Smart Driving Research Center, Faculty of Civil and Environmental Engineering, Universiti Tun Hussien Onn Malaysia, Batu Pahat, Johor, Malaysia
5	16.15 - 16.30	GSC-022	The Maximum Percentage of Fly Ash to Replace Part of Original Portland Cement (OPC) in Producing High Strength Concrete	Harun Mallisa and Gidion Turuallo	Tadulako University
6	16.30 - 16.45	GSC-023	Effect of Coconut Fibres on the Mechanical Properties of the Concrete	Mohd Yunus Ishak and Tan Jia Yang	Faculty of Civil Engineering, UniversitiTeknologi Malaysia, Malaysia
7	16.45 - 17.00	GSC-024	The Effect of Cover Thickness of Concrete Contains Garnet Exposed to Elevated Temperature	M Iqbal Khiyon, Kadir M.A.A, A.R Mohd Sam, Hasanah N, Siti Nurul Nureda Mohamad Zukri	Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor Bahru, Malaysia

PARALLEL SESSIONS

SUBTOPIC: ENV-001 – ENV-029, GEO-002 – GEO-014, WAT-010

Meeting Room 1 - Session I - 15 August 2017 (13.00 – 15.00)

No.	Time	Paper ID	Title	Authors	Affiliation
1	13.00 - 13.15	ENV-001	Mapping of Municipal Solid Waste Transportation System, Case StudiesSeberangUluRegion Palembang City	Septi Rika Putri and Febrinasti Alia	Sriwijaya University, Civil Engineering Department, Indonesia
2	13.15 - 13.30	ENV-002	Comparative Study of Solid Waste Management System Based on Building Types in Palembang City	Hatta Dahlan, Imron Zahri and Hendrik Jimmyanto	Environmental Management Department, Sriwijaya University
3	13.30 - 13.45	ENV-003	The Study of Gas Emission Reduction from Coal Combustion Using Dissolution Method by Sea Water and Electrolysis Process	Eddy Ibrahim, Susila Arita Rachman, and Alasta Widya Putra Ginting	Mining Engineering, Sriwijaya University, South Sumatra, Indonesia
4	13.45 - 14.00	ENV-004	Assessment Of Municipal Solid Waste As Refuse Derived Fuel In The Cement Industry	Gabroni Sagala, Gabriel Andari Kristanto, Muhammad Angga Kusuma, and Syifa Rizky	Environmental Engineering Study Program, Civil Engineering Department, Universitas Indonesia Kampus Baru UI Depok, Depok 16424, Indonesia
5	14.00 - 14.15	ENV-005	Urban Forests for sustainable urban development	Denny M. Sundara, Djoko M Hartono, Emirhadi Suganda, and Herman Haeruman JS	Environmental Science Program, University of Indonesia, Jl. Salemba Raya no. 4, Jakarta-10430, Indonesia
6	14.15 - 14.30	ENV-006	Evaluation Delay Time of Explosion To Get The Fragmentation Optimum on Bukit Karang Putih PT Semen Padang, Indarung,West Sumatra	Boby Whijaksono, Refky Adi Nata, and Murad MS	Mining Engineering Departement, STTIND, Padang 25171, Indonesia
7	14.30 - 14.45	ENV-007	Performance of Biodigester-Biofilter Technology and Waste Bank for Domestic Solidwaste Treatment Through Community Based Management	Elis Hastuti, Reni Nuraeni, and Sri Darwati	Research Institute for Housing and Human Settlements, Ministry of Public Works and Housing, Indonesia
8	14.45 - 15.00	ENV-008	Critical Success Factor (CSF) Service Delivery for Tahfiz Institution Teaching & Learning Environment	Ridza B.H, Jalil R.A, Sipan. I, and Y. Nukman	Faculty of Geoinformation and Real Estate Studies, Universiti Teknologi Malaysia, Malaysia

Meeting Room 1 - Session II - 15 August 2017 (15.15 – 17.15)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	WAT-010	Flood Hazard Mapping of Palembang City by using 2D Model	Mohammad Farid, Ayu Marlina, and Muhammad Syahril Badri Kusuma	Water Resources Engineering Research Group, Institut Teknologi Bandung, Jalan Ganesha 10, Bandung, Indonesia
2	15.30 - 15.45	ENV-010	Improvement of the Raw Drinking Water Quality from Shallow Well by Ozone Treatment	Qomarudin Helmy and Suprihanto Notodarmojo	Water and Wastewater Engineering Research Group, Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung, Ganesha No. 10, Bandung, West Java, Indonesia
3	15.45 - 16.00	ENV-011	Warehouse Hazardous and Toxic Waste Design in Karingau Balikpapan	Bayu Rendy Pratama and Martheana Kencanawati	Civil Engineering Department, Faculty of Civil and Engineering, Balikpapan University, Balikpapan, Indonesia
4	16.00 - 16.15	ENV-012	Coal Excavation Design for Environmentally Perspective by using Multi-Configuration GPR Antenna	Eddy Ibrahim, R.R Harminuke, Alek Alhadi, and Lilik Hendrajaya	Mining Engineering Departement, University Sriwijaya, 306620 Indralaya, South Sumatera, Indonesia
5	16.15 - 16.30	ENV-013	Land Degradation and Option of Practical Conservation Concepts in Manna Watershed Bengkulu Indonesia	Muhammad Faiz Barchia, Khairul Amri, and Renra Apriantoni	Soil Science Department, Faculty of Agriculture, University of Bengkulu, Indonesia
6	16.30 - 16.45	ENV-015	Effect of Air-flow on Biodrying Method of Municipal Solid Waste in Indonesia	Gabriel Andari Kristanto and Ismi Hanany	Environmental Engineering Study Program, Civil Engineering Department, University of Indonesia Kampus Baru UI Depok, Depok 16424, Indonesia
7	16.45 - 17.00	ENV-016	The Behavior of Coastal Communities on the Management of Domestic Wastewater in Ternate City, North Maluku, Indonesia	Nagu, N and Lessy.M.R	Civil Engineering Department, Faculty of Engineering, Khairun University, Ternate – Indonesia

Meeting Room 1 - Session III - 16 August 2017 (08.00 – 10.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	08.00 - 08.15	ENV-009	Studies on Fe(III) and Al(III) Adsorption Capacity in Acid Mine Drainage Using Powdered Activated Carbon Ceramic Adsorbent	Tine Aprianti, Siti Miskah, Selpiana, and Subriyer Nasir	Chemical Engineering Department, Faculty of Engineering, Sriwijaya University
2	08.15 - 08.30	ENV-017	Treatment of Chromium Contaminated Soil Using Bioremediation	Ipung Fitri Purwanti, Tesya Paramita Putri and Setyo Budi Kurniawan	Department of Environmental Engineering, Faculty of Civil Engineering and Planning
3	08.30 - 08.45	ENV-018	Analysis of The Effect of Waste's Particle Size Variations on Biodrying Method	Gabriel Andari Kristanto and Masayu Nadiya Zikrina	Environmental Engineering Study Program, Civil Engineering Department, University of Indonesia Kampus Baru UI Depok, Depok 16424, Indonesia
4	08.45 - 09.00	ENV-019	Non Linear Relationship Between Change in Awareness in Municipal Solid Waste Management And Domestic Wastewater Management – A Case of the Jodipan and Ksatrian Village, Malang, East Java	Nida Maisa Zakiyya, Prasanti Widyasih Sarli, and Prayatni Soewondo	Programmed Study of Environmental Engineering, Faculty of Civil and Environmental Engineering, Bandung Institute of Technology, Indonesia
5	09.00 - 09.15	ENV-020	Genetic Characteristic Of SwampBuffalo (Bubalus bubalis) from Pampangan, South Sumatra Based On Blood Protein Profile	Yuanita Windusari, Laila Hanum, and RizkiWahyudi	Department of Biology, Faculty of Mathematics and Natural Sciences, Sriwijaya University, South Sumatera
6	09.15 - 09.30	ENV-021	Provision of healthy latrine for low income community based on community empowerment in Kelurahan Kebonsari, Surabaya City, towards Indonesia ODF in 2019	Eddy Setiadi Soedjono, Nurina Fitriani, Adhi Yuniarto, and I Made Wahyu Wijaya	Department of Environmental Engineering, Faculty of Civil Engineering and Planning, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia
7	09.30 - 09.45	ENV-022	Development of Anaerobic Ammonium Oxidation (Anammox) for Biological Nitrogen Removal in Domestic Wastewater Treatment (Case study : Surabaya City, Indonesia)	I Made Wahyu Wijaya and Eddy Setiadi Soedjono	Department of Environmental Engineering, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

Meeting Room 1 - Session IV - 16 August 2017 (10.15 – 12.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	10.15 - 10.30	ENV-023	City face to face with nature	Hendro Prabowo and Mahargyantari P. Dewi	Faculty of Psychology, Gunadarma University, Depok, Indonesia
2	10.30 - 10.45	ENV-024	The Influence Of Sand Mining Towards The Suistainability Of Power Support And Capacity Of Lambidaro River	Hisni Rahmi and Restu Juniah	Mining Engineering Departement, Sriwijaya University, Palembang 30319, Indonesia
3	10.45 - 11.00	ENV-025	Studies on Adsorption Capacity of Clay-Sargassum sp Composite Biosorbent for Cr(VI) Removal in Electroplating Industry Wastewater	Tine Aprianti, Selvia Aprilyanti, Rachmawati Apriani, Sisnayati	Chemical Engineering Department, Faculty of Engineering, Universitas Sriwijaya
4	11.00 - 11.15	ENV-026	Economic Valuation on Erosion Value and Domestic Water Value: Study Sustainability of Water Resources of Coal Mining Environment	Restu Juniah, Rinaldy Dalimi, M. Suparmoko, Setyo S Moersidik , Alex Alhadi	Lecturer of Mining Engineering of Sriwijaya University, Palembang 30139, Indonesia
5	11.15 - 11.30	ENV-027	Color and COD Degradation in Photocatalytic Process of Procion Red by Using TiO_2 Catalyst under Solar Irradiation	Melati Ireng Sari, Tuty Emilia Agustina, Elda Melwita, Tine Aprianti	Chemical Engineering Department, Engineering Faculty, Sriwijaya University, South Sumatra
6	11.30 - 11.45	ENV-028	Utilization Of Household Organic Compost In Zinc (Zn) Adsorption System	Lia Cundari, Nyiayu Dita Isvaringga, and Yesica Maharani Arinda	Chemical Engineering Department, Faculty of Engineering, Sriwijaya University, Palembang 30139, Indonesia
7	11.45 - 12.00	ENV-029	Effect of the ferrous (II) and magnesium (II) addition for the bio-hydrogen production from the conversion of palm oil mill effluent (POME) by anaerobic processes	Andri Gumilar, Mindriany Syafila, and Marisa Handajani	Department of Environmental Engineering, Institut Teknologi Bandung, Jl. Ganesha No. 10 Bandung 40132, Indonesia

Meeting Room 1 - Session V - 16 August 2017 (13.00 – 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	GEO-002	Geotechnical Engineering Aspects Related to Pidie Jaya-Aceh Earthquake Disaster and Mitigation	Munirwansyah, Halida Yunita, and Reza P. Munirwan	Civil Engineering Department, Engineering Faculty Syiah Kuala University, Banda Aceh – Indonesia
2	13.15 - 13.30	GEO-004	Geological Mapping and Analysis In Determining Resource Resitivitas Limestone rocks in the village of Bukit Bulan and surrounding areas, District Limun, Sorolangun Regency, Jambi Province	Eddy Ibrahim, Budhi Kuswan Susilo, and Obie Mario Dona	Mining Engineering Department, Sriwijaya University, Indonesia
3	13.30 - 13.45	GEO-005	Ekspansif Soil Solution in the Villages	Nusa Setiani Triastuti	Civil Engineering Department, Faculty of Engineering, Krisnadwipayana University
4	13.45 - 14.00	GEO-006	BORE PILE FOUNDATION ON TALL BUILDINGS CLOSED IN THE HERITAGE BUILDING AREA	Nusa Setiani Triastuti	Civil Engineering Department, Faculty of Engineering, Krisnadwipayana University
5	14.00 - 14.15	GEO-007	The Effectiveness of Vacuum Consolidation to Soft Soil Settlement	Norma Puspita, Sartika Nisumanti, and Ari Capri	Department of Civil Engineering, Universitas Indo Global Mandiri, Jl. Jend. Sudirman KM 4 No. 629 Palembang

Meeting Room 1 - Session VI - 16 August 2017 (15.15 – 17.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	GEO-008	Development of Acceleration Time Histories for Semarang, Indonesia, Due to Shallow Crustal Fault Earthquakes	Windu Partono, Masyhur Irsyam, and Sri Prabandiyani Retno Wardani	Civil Engineering Department, Diponegoro University, 50275 Semarang, Indonesia
2	15.30 - 15.45	GEO-009	Study of the Effects of Soft Soil Thickness to the Seismic Amplification Factors in Jakarta	Hendriyawan, Dede B. Lukito, and Masyhur Irsyam	Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung Ganesha 10, Bandung 40132 Indonesia
3	15.45 - 16.00	GEO-010	Evaluation of Rainfall-InducesLandslides in Banjarnegara, Central Java, IndonesiaUsing TRIGRS Model	Agus Setyo Muntohar, Gayuh Aji Prasetyaningtiyas, Rokhmat Hidayat	Geotechnical Engineering Division, Department of Civil Engineering,UniversitasMuhammadiyah Yogyakarta, Yogyakarta, Indonesia
4	16.00 - 16.15	GEO-011	Stand Up Time in Tunnel Base On Rock Mass Rating Bieniawski 1989	Refky Adi Nata and Murad	Mining Engineering Departement, STTIND, Padang 25171, Indonesia
5	16.15 - 16.30	GEO-012	Physical and Chemical Characteristics of Fibrous Peat	Yulindasari Sutejo, Anis Saggaff, Wiwik Rahayu, and Hanafiah	Civil Engineering Department, Faculty of Civil Engineering, Universitas Sriwijaya, Inderalaya, Ogan Ilir, Indonesia
6	16.30 - 16.45	GEO-013	Peat Soil Improvement Method Using Woven Bamboo and Cerucuk	Ratna Dewi, Yulia Hastuti, Yulindasari, and Muhammad Arfan	Civil Engineering Department, Universitas Sriwijaya, Palembang, South Sumatera, Indonesia
7	16.45 - 17.00	GEO-014	Hydraulic Conductivity and Compressibility Characteristics of Fibrous Peat	Yulindasari Sutejo, Anis Saggaff, Wiwik Rahayu and Hanafiah	Civil Engineering Department, Faculty of Civil Engineering, Universitas Sriwijaya, Inderalaya, Ogan Ilir, Indonesia

PARALLEL SESSIONS

SUBTOPIC: GSC-001 – GSC-015, SIM-028, SIM-029, RTP-001 –RTP-027

Meeting Room 2 - Session I - 15 August 2017 (13.00 – 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	GSC-001	Improving Building Performance Using Smart Building Concept: Benefit Cost Ratio Comparison	Mohammed Ali Berawi, Perdana Miraj, Mustika Sari, and Abdur Rohim Boy Berawi	Department of Civil Engineering, Faculty of Engineering, Universitas Indonesia
2	13.15 - 13.30	SIM-028	The Properties of Foamed Concrete with Various Fly Ash and Foam Percentage	Saloma, Hanafiah, and Dea Urmila	Civil Engineering Department, Faculty of Engineering, Sriwijaya University
3	13.30 - 13.45	GSC-003	The Relationship between Construction Unit Cost Efficiency and Environmental Benefit	David G. Carmichael	School of Civil and Environmental Engineering, The University of New South Wales, Sydney 2052 NSW Australia
4	13.45 - 14.00	GSC-004	Deployable Bamboo Structure Project: A Building Life-Cycle Report	Adrian Firdaus, Budianastas Prastyatama, Altho Sagara, and Revian N. Wirabuana	Department of Civil Engineering, Universitas Katolik Parahyangan, Bandung, Indonesia 40141
5	14.00 - 14.15	GSC-005	Design, Development, and Application of Precast and PrestressedConcrete System for Rigid Pavement in Indonesia	Hari Nurjaman and Lutfi Faizal, Nyoman Suaryana, Binsar Hariandja, Gambiro, Purnomo, Siswo Wicaksono	Civil Engineering Department, Faculty of Engineering, Persada Indonesia University, Jakarta,Indonesia
6	14.15 - 14.30	GSC-006	Energy Audit Role In Building Planning	Riman Sipahutar and Irwin Bizzy	Mechanical Engineering Department, Sriwijaya University, South Sumatera Province, 30062, Indonesia
7	14.30 - 14.45	GSC-007	Home Photovoltaic System Design in Pangkalpinang City	Wahri Sunanda and Rika Favoria Gusa	Department of Electrical Engineering, Faculty of Engineering, Universitas Bangka Belitung, Pangkalpinang, Indonesia
8	14.45 - 15.00	GSC-008	An Experimental Study on Mitigating Alkali Silica Reaction by Using Lithium Hydroxide Monohydrate	Isneini Mohd, Sagawa Yasutaka, Hamada Hidenori, and Daisuke Yamamoto	Lampung University, Civil Engineering Department, Jln.Prof.Dr.Soemantri Brojonegoro No:1, Bandar Lampung, Indonesia

Meeting Room 2 - Session II - 15 August 2017 (15.15 – 17.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	GSC-009	Kenaf Fibrous Concrete: Mechanical Properties with Different Fiber Volume Fraction	Norazura Mizal Azzmi and Jamaludin Mohamad Yatim	Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia
2	15.30 - 15.45	GSC-010	Determinant Factors on Load-bearing Masonry (LBM) Technology Adoption: Empirical Study of the Malaysian Housing Industry	Nor Azlinda Ramli, Che Sobry Abdullah and Mohd Nasrun Mohd Nawi	School of Technology Management and Logistics, Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia
3	15.45 - 16.00	GSC-012	Drying Shrinkage and Carbonation of Concrete Containing Steel Slag as Fine Aggregate	Kolawole Adisa Olonade	Department of Civil Engineering, Obafemi Awolowo University, Ile-Ife, Nigeria
4	16.00 - 16.15	GSC-013	The Influence Local Materials of Using 2% Filler Lime Ash at North Tapanuli for Hotmix in Surface layer (AC-BC)	Muhammad Reza A. Maha and Harmein Rahman	Highway Engineering & Department, Faculty of Engineering and Enviroment,Institute of Tecnology Bandung, Indonesia
5	16.15 - 16.30	GSC-014	Analysis of Land Use in the Banyuasin District Using the Image Landsat 8 by NDVI Method	Indrayani, Erika Buchari, Dinar D.A. Putranto, and Edward Saleh	Environmental Science of SriwijayaUniversity, Palembang,Indonesia
6	16.30 - 16.45	GSC-015	Identification of Critical Energy Efficiency Factors for Selection Building Structural Components	Saeed Balubaid, Rosli Mohammed Zin, Shaik Hussein Mydin	Faculty of Engineering, Hadramout University, Mukalla, Hadhramout, Yemen
7	16.45 - 17.00	SIM-029	Sulfate Resistance of Self-Compacting Concrete with Variety of Bagasse Ash and Water Cement Ratio	Saloma, Hanafiah, Devin Yuwenka, and M. Emirzan Firdaus	Civil Engineering Department, Faculty of Engineering, Sriwijaya University

Meeting Room 2 - Session III - 16 August 2017 (08.00 – 10.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	08.00 - 08.15	RTP-001	Modelling Track Access Charge to Enhance Railway Industry Performance	Mohammed Ali Berawi, Perdana Miraj, Abdur Rohim Boy Berawi, Bambang Susantono, Pekka Leviakangas, and Hendra Radiansyah	Department of Civil Engineering, Faculty of Engineering, Universitas Indonesia, Depok, 16424, Indonesia
2	08.15 - 08.30	RTP-002	Recommended Solutions and Priority Action Programs of Sustainable Public Transportation in Developing Sustainable City in Indonesia	A. Caroline Sutandi and Paulus P, Rahardjo	Civil Engineering Department, Faculty of Engineering, Parahyangan Catholic University, Ciumbuleuit 94 Bandung Indonesia
3	08.30 - 08.45	RTP-003	Accuracy of Traffic Composition Data Collected Using an Automatic Pneumatic-Tube-Based Traffic Count Device	Nur Syahriza Muhamad Nor, Othman Che Puan, Nordiana Mashros, and MohdRosli Hainin	Faculty of Civil Engineering, UniversitiTeknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia
4	08.45 - 09.00	RTP-004	Application of Dimensionless Method to Estimate Traffic Delays at Stop–Controlled T–Intersections	Othman Che Puan, Mohammad Ali Sahraei and MohdRosli Hainin	Faculty of Civil Engineering, UniversitiTeknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia
5	09.00 - 09.15	RTP-005	Effect of Space Structures against Development of Transport Infrastructure in Banda Aceh by using the Concept of Transit Oriented Development	Fadhly Noer, A. Rahim Matondang, Sirojuzilam, and Sofyan M. Saleh	School Pascasarjana Regional Planning , University of North Sumatra, Indonesia
6	09.15 - 09.30	RTP-007	Road Infrastructure Resilience to Tsunami in Cilegon, Banten	Srikandi Wahyu Arini and Jachrizal Sumabrata	Civil Engineering Departement, Faculty of Engineering Universitas Indonesia, Kampus UI Depok, Depok 16424
7	09.30 - 09.45	RTP-008	Effect of Public Transportation Management to The City Planning In Medan	Alfonsius, Marlon Sihombing, Rujiman, and Agus Purwoko	Study Program of Regional Planning, Graduate School, University of Sumatera Utara, Indonesia

Meeting Room 2 - Session IV - 16 August 2017 (10.15 – 12.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	10.15 - 10.30	RTP-009	A Current Review of High Speed Railways Experiences in Asia and Europe	Aleksander Purba, Fumihiko Nakamura, and Priyo Pratomo	Civil Engineering Department, Faculty of Engineering, Lampung University, Jalan Sumantri Brojonegoro No 1 Gedung Meneng, Bandar Lampung 35145, Indonesia
2	10.30 - 10.45	RTP-010	A study on the traffic impact of the road corridors due to flyover construction at Surabaya Intersection, Banda Aceh of Indonesia	Sofyan M. Saleh, Sugiarto Sugiarto, Almira Hilal, and Dedek Ariansyah	Department of Civil Engineering, Syiah Kuala University, Darussalam, Banda Aceh 23111, Indonesia
3	10.45 - 11.00	RTP-011	Influence of Dimension Box differences and Time DifferencesDuring Operations of Red Box For MotorcylesatSignalized Intersection	Agah Muhammad Mulyadi	Institute of Road Engineering, Ministry of Public Works of Indonesia
4	11.00 - 11.15	RTP-012	A Stochastic Discrete Optimization Model for Designing Container Terminal Facilities	Febri Zukhruf, Russ Bona Frazila and Jzolanda Tsavalista Burhani	Institut Teknologi Bandung, Civil Engineering Department, 40132 Bandung, Indonesia
5	11.15 - 11.30	RTP-013	Accessing Public Transit in Sub-Urban Residential Area : Case Study within Petaling Jaya Municipal Area in Selangor, Malaysia	Bayu Martanto Adji, Nik Ibtishamiah Ibrahim, Mohamed Rehan Karim	Civil Engineering, Faculty of Engineering, Andalas University, Padang, Sumatera Barat
6	11.30 - 11.45	RTP-014	Shuttle Bus Services Quality Assesment Tangerang Selatan Toward Smart City	Ferdinand Fassa, Fredy Jhon Philip Sitorus, and Tri Nugraha Adikesuma	Pembangunan Jaya University, Tangerang Selatan Banten, Indonesia

Meeting Room 2 - Session V - 16 August 2017 (13.00 – 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	RTP-015	THE ROAD MAINTENANCE FUNDING MODELS IN INDONESIA USE EARMARKED TAX	Tiopan Henry M G, Ofyar Z Tamin, Ade Sjafruddin, and Pradono	Faculty of Civil and Environmental Engineering ITB Bandung
2	13.15 - 13.30	RTP-016	Developing A Stochastic Traffic Flow Prediction Model For Public-Private Partnership Projects	Phong Thanh Nguyen, Veerasak Likhitruangsilp, and Masamitsu Onishi	Construction Engineering and Management Division, Department of Civil Engineering, Faculty of Engineering, Chulalongkorn University (CU), Bangkok city, Thailand
3	13.30 - 13.45	RTP-017	Challenge for The Design And Construction of Jakarta MRT From Geotechnical and Traffic Engineering Perspectives	Paulus P, Rahardjo and A. Caroline Sutandi	Civil Engineering Department, Faculty of Engineering, Parahyangan Catholic University, Ciumbuleuit 94 Bandung Indonesia
4	13.45 - 14.00	RTP-018	Factors Affecting Trip Generation of Motorcyclist for the Purpose of Non-Mandatory Activities	Renni Anggraini, Sugiarto, and Heru Pramanda	Civil Engineering Department, Faculty of Engineering, Syiah Kuala University, Banda Aceh, Indonesia
5	14.00 - 14.15	RTP-020	Analysis of the accessibility improvement needs of the main infrastructure in dema village, sub district of Anjongan, Sub-Province of Mempawah	Heri Azwansyah, Ferry Juniardi, Sumiyattinah, S. Nurlaily Kadarini, and Bayu Martanto Adji	Civil Engineering Department, Faculty of Engineering, Tanjungpura University, Pontianak, Indonesia
6	14.15 - 14.30	RTP-021	Readiness of Freight Transportation System at Special Economic Zone of Lhokseumawe	Herman Fithra, Sirojuzilam, Sofyan M. Saleh and Erlina	Universitas Sumatera Utara, Padang Bulan, Medan, 20215, Indonesia

Meeting Room 2 - Session VI - 16 August 2017 (15.15 – 17.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	RTP-022	Reflexion on Linear Regression Trip Production Modelling Method for Ensuring Good Model Quality	Hitapriya Suprayitno and Vita Ratnasari	Civil Engineering Deparment, Institut Teknologi Sepuluh Nopember (ITS), ITS Campuss, Surabaya, Indonesia
2	15.30 - 15.45	RTP-023	The Advantage of Calculating Emission Reduction with local emission factors in South Sumatera Region	Erika Buchari	Civil Engineering Department, Faculty of Engineering , Sriwijaya University, Indonesia
3	15.45 - 16.00	RTP-024	Optimising The Design of Short Sea Shipping (SSS) Operation System To improve The Performace Multimodal Freight Transportation Network	Johannes E. Simangunsong, Ade Sjafruddin, Harun Al-Rasyid S. Lubis, and Russ Bona Frazila	Departement of Civil Engineering, Institute of Technology Bandung
4	16.00 - 16.15	RTP-025	Import Container Inter-Arrival Time and Handling Characteristic in Marine Container Terminal with External Yard (Jakarta International Container Terminal Case Study)	Ferry Rusgiyarto, Ade Sjafruddin, Russ Bona Frazila and Suprayogi	Departement of Civil Engineering, Institute of Technology Bandung
5	16.15 - 16.30	RTP-026	Characteristics of Movement and Factors Affecting the Choice of Mode of Transport of Community on the Bank of Musi River of Palembang City of South Sumatra	Joni Arliansyah, Yusuf Hartono, Yulia Hastuti, and Rinna Astuti	Civil Engineering Department, Faculty of Engineering , Sriwijaya University, Indonesia
6	16.30 - 16.45	RTP-027	Study Performance and Emission of Patal-Pusri Intersection and Its Network Using Microsimulation Program	Ragil Tri Bawono and Joni Arliansyah	Civil Engineering Department, Faculty of Engineering , Sriwijaya University, Indonesia

PARALLEL SESSIONS

SUBTOPIC: RTP-006, CPM-001 – CPM-027, AUT-001 – AUT-003, DRE-001 – DRE-013, ENV-014

Meeting Room 3 - Session I - 15 August 2017 (13.00 – 15.00)

No.	Time	Paper ID	Title	Authors	Affiliation
1	13.00 - 13.15	RTP-006	Infrastructure Development of Road Network for Economic and Regional Development Based on Accesibility Concept	Heri Amalindo, Anis Saggaff, Joni Arliansyah	Civil Engineering Department, Sriwijaya University, South Sematera, Indonesia
2	13.15 - 13.30	CPM-001	Tourism Infrastructure Development Prioritization in Sabang Island using Analytic Network Process Methods	Hafnidar A. Rani, Moch. Afifuddin, and Herry Akbar	Civil Engineering Department, Faculty of Engineering, Muhammadiyah Aceh University, Banda Aceh, Indonesia
3	13.30 - 13.45	CPM-002	Assessment of Time and Costs of Two Formwork Methodologiesin the Philippines using BIM Simulation	Jason Maximino Ongpeng	De La Salle University-Manila
4	13.45 - 14.00	CPM-004	Risk Management Analysis for Construction of Kutai Kartanegara Bridge-East Kalimantan-Indonesia	Subandiyah Azis and Rafi Rahayu Firdaus	National Institute of Technology Malang, East Java, Indonesia
5	14.00 - 14.15	CPM-005	The Loss on Profit of Contractor Risksas a Comparison of the Three Periods in Aceh	Fachrurrazi, Saiful Husin, and Mahmuddin	Civil Engineering, Syiah Kuala University, Aceh-Indonesia
6	14.15 - 14.30	CPM-006	Bidding Cost Evaluation with Fuzzy Methods On Building Projects in Jakarta	Budi Susetyo and Tin Budi Utami	Civil Engineering Department, Faculty of Engineering, Mercubuana University, Jakarta, Indonesia
7	14.30 - 14.45	CPM-008	Joint-Operation in Water Resources Project in Indonesia: Integrated or Non-Integrated	Taufika Ophiyandri, Bambang Istijono, and Benny Hidayat	Civil Engineering Department, Engineering Faculty, Andalas University, Kampus Unand Limau Manis, Padang Indonesia 25163
8	14.45 - 15.00	CPM-009	Managing Project Manager Competency for Road Project Development	Edrizal, Muhd Zaimi Abd Majid , Alzahri, Yulcherlina, Saeed Balubaid	Faculty of Civil Engineering, UniversitiTeknologi Malaysia, Johor Bahru, Malaysia

Meeting Room 3 - Session II - 15 August 2017 (15.15 – 17.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	CPM-010	The Phenomenon of Informal Worker in Housing Construction Project	Maranatha Wijayaningtyas, Ibrahim Sipan, and Kukuh Lukiyanto	Construction Management Department, National Institute of Technology (ITN), Malang, Indonesia
2	15.30 - 15.45	CPM-011	Budget Plan Care Management and Maintenance Office Building (Case studies Metal Industries Development Centre)	Dewi Yustiarini	Department Of Civil Engineering Education, Faculty Of Technology And Vocational Education, Indonesia University Of Education
3	15.45 - 16.00	CPM-012	Rent-seeking Behaviours in Property Development: A Literature Review	Suhaila Ali and Abdul Rashid Abdul Aziz	Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Seri Iskandar Campus, Seri Iskandar, 32610, Perak, Malaysia
4	16.00 - 16.15	CPM-013	Redesign Effect On The Time Performance and Cost Performance Project Design And Build House In Chinatown Kelapa Gading Jakarta	Dwi Dinariana and Yuki Yohana	University of Persada Indonesia YAI, Jl. Salemba 7 Central Jakarta
5	16.15 - 16.30	CPM-014	Construction Safety Monitoring Based On The Project's Characteristic With Fuzzy Logic Approach	Lila Ayu Ratna Winanda, Trijoko Wahyu Adi, Nadjadji Anwar and Febriana Santi Wahyuni	Civil Engineering Department, Sepuluh Nopember Institut of Technology, Surabaya, Indonesia
6	16.30 - 16.45	CPM-015	Comprehensive Study Of Unsafe Action In Making Construction Worker Safety And Health At Work Construction Projects	Dewi Yustiarini	Department Of Civil Engineering Education, Faculty Of Technology And Vocational Education, Indonesia University Of Education
7	16.45 - 17.00	CPM-016	The Concept of Value Stream Mapping to Reduce of Work-Time Waste as Applied the Smart Construction Management	Elizar	Civil Engineering Department, Universitas Islam Riau, Jl. Kaharuddin Nst No.113, Pekanbaru, Indonesia 28284

Meeting Room 3 - Session III - 16 August 2017 (08.00 – 10.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	08.00 - 08.15	CPM-017	Application Fuzzy Multi-Attribute Decision Analysis Method to Prioritize Project Success Criteria	Nguyen Thanh Phong, Nguyen Le Hoang Thuy To Quyen	Department of Project Management, Faculty of Civil Engineering, Hochiminh City Open University (HCMCOU), Hochiminh city, Vietnam
2	08.15 - 08.30	CPM-018	Development of New Port in Minahasa Utara : A-Pre Feasibility Study	Suharman Hamzah, Asad Abdurahman, Reza Saputra, and Evi Aprianti	Department of Civil Engineering, Faculty of Engineering, University of Hasanuddin, Makassar, Indonesia
3	08.30 - 08.45	CPM-019	Evaluation of Implementation Viability Gap Funding (VGF) Policy on Toll Road Investment in Indonesia	Iris Mahani, Rizal Z. Tamin, Krishna S.Pribadi and Andreas Wibowo	Civil Engineering Program, Faculty of Civil and Environmental Engineering, ITB, Bandung, Indonesia
4	08.45 - 09.00	CPM-021	The Estimation of Invesment and Stated Income No Tax from Mining Operation License Predicted with Clear and Clean at West Sumatera Province	Riam Marlina A, Fahrurrozie Syarkowi, and Maulana Yusuf	Mining Engineering Department, Sriwijaya Univesity, Indonesia
5	09.00 - 09.15	CPM-022	An Implementation of Activity-Based Costing (ABC) System in the Construction Project	Nyoman M Jaya	Civil Engineering Department, Faculty of Engineering, the University of Udayana, Denpasar-Bali, Indonesia
6	09.15 - 09.30	CPM-023	Cost Risk Management Implementation on Design-build Project of Integrated Public Spaces Child Friendly in Capital of Jakarta	Mardiaman and Abdul Mubarok	Program Magister Teknik Sipil Universitas Tama Jagakarsa, Jalan Letjen TB Simatupang No. 152 Tanjung Barat Jakarta Selatan 12530
7	09.30 - 09.45	CPM-024	Success factors for Public-Private Partnership projects in Vietnam	Veerasak Likhitruangsilp, Phong Thanh Nguyen, and Masamitsu Onishi	Construction Engineering and Management Division, Department of Civil Engineering, Faculty of Engineering, Chulalongkorn University (CU), Bangkok, Thailand
8	09.45 - 10.00	CPM-025	Readiness of Change Management in the Malaysian Public Organisation	Mohd Hafis Ahmad, Syuhaida Ismal, and Abd. Latif Saleh	Faculty of Civil Engineering, UniversitiTeknologi Malaysia, Johor Bahru, Malaysia

Meeting Room 3 - Session IV - 16 August 2017 (10.15 – 12.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	10.15 - 10.30	CPM-003	Development of Maintenance Composite Priority Index for Buildings in Palestine: A Pilot Case Study	Amjad Issa and Riyad Awad	Faculty of Engineering (Civil Engineering Department), An Najah National University, Palestine
2	10.30 - 10.45	CPM-007	Implementation of Building Information Modelling (BIM) in Building Design for Energy Minimisation	Bouguerra Khalid and Narimah Kasim	Department of Construction Management, Faculty of Technology Management & Business, Universiti Tun Hussein Onn Malaysia, 86400 Parit Raja, Batu Pahat, Johor, Malaysia
3	10.45 - 11.00	CPM-020	Simulation of Tunneling Construction Methods of the Cisumdawu Toll Road	Muhamad Abduh, Sapto Nugroho Sukardi, Muhammad Rusdian La Ola, Anita Ariesty, Reini D. Wirahadikusumah	Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung, Jln. Ganesha No. 10, Bandung, 40132, Indonesia
4	11.00 - 11.15	AUT-001	Building Information Modelling Adoption in Malaysian Industrialised Building System	Chai Chang Saar, Tan Cher Siang, Fatin Afiqah Ahmad Bajuri, Loo Siaw Chuing, Aminah Md Yusof and Lee Xia Sheng	Department of Structure and Materials, Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia
5	11.15 - 11.30	AUT-002	Utilization of Design Data on Conventional System in Migration Process to Building Information Modeling (BIM)	Boyke M. Akbar and Dewi Larasati ZR	School of Architecture, Planning, and Policy Development, Bandung Institute of Technology, Jl. Ganesha 10 Bandung, Indonesia
6	11.30 - 11.45	AUT-003	Building Information Modelling Benefits and Barriers: Its Impact on The Users in Indonesia	Yulita Hanifah, Furry Andini Wilis, and Dewi Larasati ZR	Department of Architecture, School of Architecture Planning and Policy Development, ITB, Jalan Ganesha 10, Bandung
7	11.45 – 12.00	CPM-026	Cost Estimation for Slope Stability Improvement in Muara Enim	Ika Juliantinaa, Yulindasari Sutejob, Bimo Brata Adhitya, Nurul Permatasari, and Reffanda Kurniawan Rustamd	Civil Engineering Department, Faculty of Civil Engineering, Universitas Sriwijaya, Inderalaya, Ogan Ilir, Indonesia

Meeting Room 3 - Session V - 16 August 2017 (13.00 – 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	DRE-001	RISK ASSESSMENT OF HOUSING RECONSTRUCTION PROJECT community-based construction after the earthquake	Wendi Boy, Suripin, and Muhammad Agung Wibowo	Department of Civil Engineering, Faculty of Engineering Diponogoro University-Semarang, Indonesia
2	13.15 - 13.30	DRE-002	Safety Factors in Public Buildings Against Earthquake Risk in the City of Padang, Indonesia	Yulcherlina, Muhd Zaimi Abd Majid, Mohd Rosli M Zin, and Edrizal	Universiti Teknologi Malaysia, Johor Bahru, Malaysia
3	13.30 - 13.45	DRE-003	Design of Flood Early Warning System with Wifi Network Based on Smartphone	Ahyar Supani, Yuli Andriani, and Ahmad Taqwa	State Polytechnic of Sriwijaya, Srijaya Negara Street, Palembang, South Sumatera, Indonesia
4	13.45 - 14.00	DRE-004	Risk Management of Infrastructure Development In Border Area Indonesia - Malaysia	Suryani Fitri, Trikariastoto, and Ita Reinita	Civil Engineering Department, Faculty of Engineering, University Persada Indonesia – Y.A.I
5	14.00 - 14.15	DRE-005	Tsunami Shelter in Padang City: Location Suitability and Management Issue	Eva Rita, Robby Permata, Hilma Yonne, and Nasfryzal Carlo	Disaster Studi Centre/Lecturer of Postgraduate of Universitas Bung Hatta
6	14.15 - 14.30	DRE-006	Knowledge Transfer to Builders in Post-disaster Housing Reconstruction in West-Sumatra of Indonesia	Benny Hidayat and Zal Afif	Civil Engineering Department, Faculty of Engineering, Universitas Andalas, Padang, Indonesia
7	14.30 - 14.45	DRE-007	Community Base Development at the Implementation of Rehabilitation and Reconstruction Project After Earthquake in West Sumatera	Indra Farni, Rosli Mohamad Zin, Alzahri	Faculty of Civil Engineering, Universiti Teknologi Malaysia, Johor Bahru, Malaysia
8	14.45 - 15.00	CPM-027	Critical Success Factors in Infrastructure Projects	Siti Fairus Zakaria; Rosli Mohamad Zin; Ismail Mohamad	Candidate of Engineering Doctorate Studies, Faculty of Civil Engineering, Universiti Teknologi Malaysia (UTM)

Meeting Room 3 - Session VI - 16 August 2017 (15.15 – 17.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	DRE-008	The Loss on Profit ofContractor Risksas a Comparison acrossthe Three Periods of Aceh Region	Fachrurrazi, Saiful Husin, and Mahmuddin	Civil Engineering, Syiah Kuala University, Aceh-Indonesia
2	15.30 - 15.45	DRE-009	Demand versus Capacity of Tsunami Shelters in Padang	Yosritzal, Badrul Mustafa Kemal, and Yoga Bimo Aulia	Civil Engineering Department, Engineering Faculty, University of Andalas, Padang, INDONESIA
3	15.45 - 16.00	DRE-010	External Risk Factors Affecting Construction Costs	Mubarak, Saiful Husin, and Mutia Oktaviati	Faculty of Engineering, Univ. of Syiah Kuala, 23111 Banda Aceh, Indonesia
4	16.00 - 16.15	DRE-012	Construction Cost Impacts Related to Manpower, Material, and Equipment Factors in Contractor Firms Perspective	Saiful Husin, Abdullah, Medyan Riza, and Mochammad Afifuddin	Engineering Doctoral Study Program, Univ. of Syiah Kuala, 23111 Banda Aceh, Indonesia
5	16.15 - 16.30	DRE-013	Application of Cimahi River Unit Hydrograph for Flood Early Warning System	Ariani Budi Safarina and Ramli	Jenderal AchmadYani University, TerusanJenderalSoedirman Street, PO Box 148 Cimahi, Indonesia 40532
6	16.30 - 16.45	ENV-014	Study Of Acid Mine Drainage Management With Evaluating Climate and Rainfall in East Pit 3 West Banko Coal Mine	Neny Rochyani	Chemical Engineering Department, Faculty of Engineering PGRI University, 30116, Palembang, Indonesia
7	16.45 - 17.00	DRE-011	The Development of Flood Map in Malaysia	Siti Fairus Zakaria ; Rosli Mohamad Zin ; Ismail Mohamad	Candidate of Engineering Doctorate Studies, Faculty of Civil Engineering, Universiti Teknologi Malaysia (UTM)

PARALLEL SESSIONS

SUBTOPIC: ABE-001 – ABE-029, WAT-001 – WAT-017

Meeting Room 5 - Session I - 15 August 2017 (13.00 – 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	ABE-001	The Comparison of Vernacular Residences' Thermal Comfort in Coastal with that in Mountainous Regions of Tropical Areas	Hermawan, Eddy Prianto, Erni Setyowati, and Sunaryo	Architecture Department, Qur'anic Science University, Kalibeber Street Wonosobo, 56351, Indonesia
2	13.15 - 13.30	ABE-002	Rethinking the Architectural Design Concept in the Digital Culture (in Architectural's Practice Perspective)	Albertus Galih Prawata	Universitas Bina Nusantara
3	13.30 - 13.45	ABE-003	Dweller's Perception toward Risha Precast Technology Contribution in the Successfulness of Petogogan Row-Housing Program	Harri Ananta Setiadi	Research Institute for Housing and Human Settlements, Agency for Research and Development, Ministry of Public Works and and Housing Settlement, Jalan Panyawungan, Cileunyi Wetan Kabupaten Bandung
4	13.45 - 14.00	ABE-004	Simplified Vulnerabiltiy Analysis (SVA) Preliminary Design of the Frame Structure in the Architectural Design Process	Livian Teddy, Gagoek Hardiman, Nuroji, and Sri Tudjono	Doctoral Program of Architecture and Urban, Diponegoro University, Indonesia
5	14.00 - 14.15	ABE-005	*Omah* Displacement and Utilization from Rural to Urban Areas, as Green Design Lifestyle	Ade Ariyani Sari Fajarwati	School of Design Bina Nusantara University, Jakarta, Indonesia
6	14.15 - 14.30	ABE-006	The Psychological Determinants of Energy Saving Behavior	Razlin Mansor and Low Sheau-Ting	Department of Real Estate, Faculty of Geoinformation and Real Estate, Universiti Teknologi Malaysia, 81300 Johor Bahru, Johor, Malaysia
7	14.30 - 14.45	ABE-007	Application of Soil Block without Burning Process and Calcium Silicate Panels as Building Wall in Mountainous Area	Vincentius Totok Noerwasito and Tanti Satriana Rosary Nasution	Department of Architecture, Institut Teknologi Sepuluh Nopember, Kampus ITS Sukolilo, Surabaya 60111
8	14.45 - 15.00	ABE-019	Thermal Comfort in Naturally Ventilated Buildings in Maceio, Brazil	Harimi Djamila	Faculty of Engineering, Universiti Malaysia Sabah, Jalan UMS, 88400 Kota Kinabalu, Sabah, Malaysia

Meeting Room 5 - Session II - 15 August 2017 (15.15 – 17.15)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	WAT-001	Study on Regional Irrigation Water Loss Kelingi Tugumulyo Primary Channel Segment Bk.2 Bk.6 from Use Up to Fish Pond Jetted Lubuklinggau City and District Musi Rawas, South Sumatra, Indonesia	Okma Yendri and Deden Putra Andika	Civil Engineering Departtment, Universitas Musi Rawas
2	15.30 - 15.45	WAT-002	Completion of Potential Conflicts of Interest through Optimization of Rukoh Reservoir Operation in Pidie District, Aceh Province, Indonesia	Azmeri, Iwan K. Hadihardaja, Nina Shaskia, and Kamal Surya Admaja	Department of Civil Engineering, Syiah Kuala University, Indonesia, Jl. Syech Abdur Rauf No. 7, Banda Aceh 23111, Aceh Province, Indonesia
3	15.45 - 16.00	WAT-003	Stable Channel of Reclaimed Tidal Lowland	Achmad Syarifudin, Momon S Imanuddin, Arie S Moerwanto, and FX Suryadi	Civil Engineering & Environmental Departement, University of Bina Darma, Jl. Jend. A. Yani No. 3 Palembang, Indonesia
4	16.00 - 16.15	WAT-004	A Study of Water Pump Efficiency for Household Water Demand at Lubuklinggau	Anna Emiliawati	Civil Enginering's Program, Universitas Musi Rawas, Jl. Pemb Komp Perkantoran MURA South Sumatera
5	16.15 - 16.30	WAT-005	Study of Morphometri to Debit Drainage Basin (Das) Arau Padang City	Lusi Utama, Amrizal, Isril Berd, and Zuherna	Civil Engineering Doctoral Program Andalas University Padang
6	16.30 - 16.45	WAT-006	Dam Break Analysis and Flood Inundation Mapping of Krisak Dam for Emergency Action Plan	Juliastuti and Oki Setyandito	Civil Engineering Department, Faculty of Engineering and Technology, Bina Nusantara University, Jakarta, Indonesia
7	16.45 - 17.00	WAT-007	The Effect of Differences Rainfall Data Duration and Time Period in the Assessment of Rainwater Harvesting System Performance for Domestic Water Use	Imroatul C. Juliana, M. Syahril Badri Kusuma, M. Cahyono, Widjaja Martokusumo, and Arno Adi Kuntoro	Civil Engineering Department, Faculty of Engineering, Sriwijaya University, Palembang, Indonesia
8	17.00 - 17.15	WAT-008	Handling the Decline of Ground Water Using Artificial Recharge Areas	Muhammad Shofi H, K. Edi Yoga, and Dicky Muslim	Geological Engineering – Padjadjaran University

Meeting Room 5 - Session III - 16 August 2017 (08.00 – 10.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	08.00 - 08.15	WAT-009	Feasibility Study of Rainwater Harvesting for Domestic Use (Case Study : West Jakarta Rainfall Data)	Jason Kartolo and Elly Kusumawati	Civil Engineering of Krida Wacana Christian University
2	08.15 - 08.30	WAT-011	River Flow Modeling Using Artificial Neural Networks In Kapuas River, West Kalimantan, Indonesia	Henny Herawati, Suripin, and Suharyanto	Civil Engineering Department, Tanjungpura University, Indonesia
3	08.30 - 08.45	WAT-012	The Effect of Land Use Change to Maximum and Minimum Discharge in Cikapundung River Basin	Arno Adi Kuntoro, Anton Winarto Putro, M.Syahril B.Kusuma, Suardi Natasaputra	Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung, Indonesia
4	08.45 - 09.00	WAT-013	Critical Level of Water Recharges in the Catchment Areas of Manna Watershed Bengkulu Province Indonesia	Khairul Amri, Loparedo Nugraha, and Muhammad Faiz Barchia	Civil Engineering Department, Faculty of Engineering, University of Bengkulu 38371, Indonesia
5	09.00 - 09.15	WAT-014	The Analysis of Clean Water Demand for Land Use Optimization Based on Water Resource Balance in Balikpapan City	Achmad Ghozali and Rossa Margaret Kadar Yanti	Departement of Civil Engineering, Kalimantan Institute of Technology, Balikpapan
6	09.15 - 09.30	WAT-015	Structuring, public participation in water resources management	Yuli Andriani, T. Yuri M Zagloel, R.H. Koestoer and M Suparmoko	School of Environmental Science, University of Indonesia
7	09.30 - 09.45	WAT-016	Small Hydropower Spot Predictionusing SWAT and a Diversion Algorithm, Case Study: UpperCitarum River Basin	Hadi Kardhana, Doni Khaira Arya, Iwan K. Hadihardaja, Widyaningtyas, Edi Riawan, and Atika Lubis	Water Resources Engineering Research Group, Faculty of Civil & Environmental Engineering, InstitutTeknologi Bandung (ITB)
8	09.45 - 10.00	WAT-017	Spatial Distribution Level of Land Erosion Disposition Based on the Analysis of Slope on Central Lematang sub Basin	Dinar Dwi Anugerah Putranto, Sarino, and Yuono, AL	Civil Engineering Programm, Post Graduate Programm, Universitas Sriwijaya, Jl. Padang Selasa, Bukit Besar, Palembang

Meeting Room 5 - Session IV - 16 August 2017 (10.15 – 12.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	10.15 - 10.30	ABE-008	Public-Private Partnership for Housing Construction Projects: A Comparative Analysis of the Success Factors between Malaysia and Nigeria	Muhammad Zayyanu and Foziah Johar	Department of Urban and Regional Planning, Faculty of Built Environment, Universiti Teknologi Malaysia, 81310, Johor Bahru, Malaysia
2	10.30 - 10.45	ABE-009	Tectonic Model of Indonesian Traditional House Caraulu House study case in Minangga Village, West Semendawai II, District Ogan Komering Ulu Timur, South Sumatera Province	Iwan muraman ibnu	Building Technology Laboratory, Architecture Engineering Departement, Sriwijaya University, Indonesia
3	10.45 - 11.00	ABE-010	Linkages Between Capital Structure Policy and Malaysian Real Estate Investment Trusts' Property Portfolio Enlargement	Rohaya Abdul Jalil, Maimunah Sapri and Tiong Chai Ping	Centre for Real Estate Studies, Universiti Teknologi Malaysia, Malaysia
4	11.00 - 11.15	ABE-011	Evaluating the Effectiveness of Road Humps in Reducing Vehicle Speed: Case Study of a University Campus	Nordiana Mashros, Muhammad Faizudin Md Nor, Aztri Yuli Kurnia, Sitti Asmah Hassan, Othman Che Puan, Norhidayah Abdul Hassan, and Nor Zurairahetty Mohd Yunus	Faculty of Civil Engineering, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia
5	11.15 - 11.30	ABE-012	A Comparative Study : The Spatial Organization of Pre and Post Disaster House in Traditional Cultured Area; Study Case : Core House Project in Kasongan, Yogyakarta, Indonesia	Vicky Agustina	Department of Architecture, The University of Tokyo, Tokyo, Japan
6	11.30 - 11.45	ABE-013	The Factor of Building Orientation Direction as Déterminant The Thermal Comfort Quality	James Rilatupa	Architecture Engineering Department, Faculty of Engineering, Tarumanagara University, Jl. Letjen. S. Parman No. 1, Jakarta 11440, Indonesia
7	11.45 - 12.00	ABE-014	Transformation of Rumah Limas Due to City Development	Fani Rizki Rahmawati and Widya Fransiska F Anwar	Department of Design and Animation , Palcomtech,Palembang, Indonesia

Meeting Room 5 - Session V - 16 August 2017 (13.00 – 15.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	13.00 - 13.15	ABE-015	Contextual Attributes Facilitating Solid Waste Separation at Source Practice among Household in Malaysia	NurAzzlin Mangsor and Low Sheau-Ting	Department of Real Estate, Faculty of Geoinformation and Real Estate, UniversitiTeknologi Malaysia, 81310 Johor Bahru, Johor,Malaysia
2	13.15 - 13.30	ABE-016	Transformation of Dwelling Culture Based on Riverine Community in Musi River Palembang	Bambang Wicaksono, Ari Siswanto, Susilo Kusdiwanggo, and Widya Fransiska Febriati Anwar	Department S3 Engineering Science Post Graduate Program, Sriwijaya University, Jl. Palembang Prabumulih Km. 32 Inderalaya
3	13.30 - 13.45	ABE-017	An Overview of BIM Uptake in Asian Developing Countries	Noor Akmal Adillah Ismail, Maria Chiozzi , and Robin Drogemuller	School of Civil Engineering & Built Environment, Queensland University of Technology, Brisbane, Australia
4	13.45 - 14.00	ABE-018	The Usefulness of Main Praying Hall of Masjid Agung Islamic Center of Lhokseumawe, Aceh	Bambang Karsono, Atthaillah, Dona Rose bt Amer Koesmeri, and Irma Yunita Sari	Researcher and Lecturer, Architecture Program, University Malaysia Sarawak, Malaysia
5	14.00 - 14.15	ABE-020	Achieving Walkable City in Indonesia: Policy and Responsive Design through Public Participation	Natalia Tanan and Laksmi Darmoono	Institute of Road Engineering, Ministry of Public Works and Housing
6	14.15 - 14.30	ABE-021	Root causes occurrence of low BIM adoption in Malaysia: System Dynamics Modelling approach	Shahela Mamter, Abdul Rashid Abdul Aziz, Jafri Zulkepli	Faculty of Architecture, Planning and Surveying, Universiti Teknologi MARA, Seri Iskandar Campus, Seri Iskandar, 32610 Perak, Malaysia
7	14.30 - 14.45	ABE-022	Performative Building Envelope Design Correlated to Solar Radiation and Cooling Energy Consumption	Thiodore Jacky and Santoni	UPH, School of Design, 15810 M.H. Thamrin Boulevard, Indonesia

Meeting Room 5 - Session VI - 16 August 2017 (15.15 – 17.00)					
No.	**Time**	**Paper ID**	**Title**	**Authors**	**Affiliation**
1	15.15 - 15.30	ABE-023	Evaluation of Day Lighting Performance in Limas House	Widya Fransiska F. Anwar	Department of Architectire, Faculty of Engineering, Universitas Siwijaya
2	15.30 - 15.45	ABE-024	Empowering Low-income Community in Kampong Settlement by Exploring People's Acivities in Surrounding Environment	Paulus Bawole and Haryati B. Sutanto	The Faculty of Architecture and Design – Duta Wacana Christian University; Jl. Dr. Wahidin No. 5 – 25, Yogyakarta 55224
3	15.45 - 16.00	ABE-026	ACCULTURATION OF STRUCTURAL AND CONSTRUCTION IN THE HOUSES OF BALINESE MIGRANTS IN DAYAK NGAJU'S HOMELAND, BASARANG JAYA, KAPUAS, CENTRAL KALIMANTAN	Herwin Sutrisno, Gagoek Hardiman, Edward E. Pandelaki, and Theresia Susi	Program of Architecture and Urbanism, Diponegoro University, Semarang 50275-Indonesia
4	16.00 - 16.15	ABE-027	IMPLEMENTATION OF ECOHOUSE AND ECOLIVING CONCEPT IN ARCHITECTURE - *SASAK* TRADITIONAL SETTLEMENT	Agus Zulkarnain Arief and Achmad Tutut Subadyo	Department of Architecture, Engineering Faculty University of Merdeka Malang
5	16.15 - 16.30	ABE-028	Waqf Private Property Trust Fund as Property Unlock Initiative	Rohaya Abdul Jalil, Maimunah Sapri and Tiong Chai Ping	Centre for Real Estate Studies, Faculty of Geoinformation and Real Estate, Faculty of Islamic Civilzation, Universiti Teknologi Malaysia
6	16.30 - 16.45	ABE-029	Contextual Attributes Facilitating Solid Waste Separation at Source Practice among Household in Malaysia	Siti Sujatini, Tresna P. Soemardi, Abimanyu T. Alamsyah, Linda Darmajanti	Architecture Engineering Department , Faculty of Engineering, University of Persada Indonesia, Jl. Salemba Raya 7-9, Jakarta 10340

(SCE-047)
Flexural Strength of Self Compacting Fiber RC Beams using Polypropylene Fiber: Experimental Study

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To increase the tensile strength of concrete, a fiber material was added, while to reduce a noise in a construction project, a self compacting concrete was choiced. To study the flexural behavior and strength of self compacting fiber reinforced concrete (RC) beams using polypropylene fiber, an experimental program was conducted. Four beam specimens were cast and tested in this study. Two beams were cast of self compacting reinforced concrete without fiber, and two beams were cast of self compacting fiber reinforced concrete using polypropylene. The beams specimen had the section of (180 x 260) mm and the length was 2000 mm. The beams had simple supported with the span of 1800 mm. The longitudinal reinforcements were using diameter of 10 mm. Two reinforcements of Ø10 mm were put for compressive reinforcement and three reinforcements of Ø10 mm were put for tensile reinforcement. The shear reinforcement was using diameter of 8 mm. The shear reinforcements with spacing of 100 mm were put in the one fourth near to the support and the spacing of 150 mm were put in the middle span. Two points loading were used in the testing. The result shows that the load-carrying capacity of the self compacting reinforced concrete beam using polypropylene was a little bit higher than the self compacting reinforced concrete beam without polypropylene. The increment of load-carring capacity of self compacting polypropylenen fiber reinforced concrete was not so significant because the increment was only 2.798 % compare to self compacting non fiber reinforced concrete. And from the load-carrying capacity-deflection relationship curves show that both the self compacting polypropylene fiber reinforced concrete beam and the self compacting non fiber reinforced concrete beam were ductile beams.

(SCE-048)
Behavior of Rubber Base Isolatator with Various Shape Factors

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The base isolation is the most effective technique in reducing earthquake force that transmits to the building. This system is developed for earthquake protection by increasing the fundamental frequency of the structure away from the dominant frequency of seismic excitation and fundamental frequency of the fixed base structure. The layer number of rubber and reinforcement has an important influence to the vertical and horizontal behaviors of base isolation system. The parameters of shape factor denoted S are used to present the number of layers. A series finite element analysis (FEA) was carried out to investigate the effect of shape factor (S) of base isolation to the vertical and horizontal behaviors. Three dimensional models of base isolations with different shape factor values were created and analyzed by ANSYS. The models were subjected to axial and combination of vertical and horizontal loads to observe their vertical and horizontal behaviors, respectively. The results of the study indicate that the values of shape factor have no significant influence to the horizontal behavior due to the constant thickness of overall rubber layers. On the contrary, the opposite conditions were found on their vertical behaviors. From the study, it can be concluded that the increase of shape factor value gave a considerable impact to the vertical strength of base isolation. In other words, it can be said that the increase of shape factor value also increases the vertical stiffness of base isolators.

(SCE-049)
Experimental Study on the Strength of Double Shear Timber Connection Using Bamboo Dowel Fastener

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Utilisation of timber and bamboo as building materials was very promising for now and future. As renewable resources they have high mechanical properties, lightweight, environmentally friendly and economic. Utilization of bamboo as connector was rarely published. Therefore, this study focused on utilization of non-metal material as connector in timber structure especially for beam and column. This research was conducted in the laboratory to examine the strength of double shear timber connection by using glued in rods (bamboo dowel) as connector with variation of adhesive thickness. As control specimen was used bamboo dowel Ø14 mm without adhesive in double shear connection. The results showed that the strength of double shear timber connection by using glued in rods (bamboo dowel) as connector could increase by 41% to resist axial force higher than the control one.

Flexural strength of self compacting fiber reinforced concrete beams using polypropylene fiber: An experimental study

Ade Lisantono, Baskoro Abdi Praja, and Billy Nouwen Hermawan

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Flexural Strength of Self Compacting Fiber Reinforced Concrete Beams using Polypropylene Fiber: an Experimental Study

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Abstract. One of the methods to increase the tensile strength of concrete is adding a fiber material into the concrete. While to reduce a noise in a construction project, a self compacting concrete was a good choices in the project. This paper presents an experimental study of flexural behavior and strength of self compacting fiber reinforced concrete (RC) beams using polypropylene fiber. The micro monofilament polypropylene fibers with the proportion 0.9 kg/m^3 of concrete weight were used in this study. Four beam specimens were cast and tested in this study. Two beams were cast of self compacting reinforced concrete without fiber, and two beams were cast of self compacting fiber reinforced concrete using polypropylene. The beams specimen had the section of (180×260) mm and the length was 2000 mm. The beams had simple supported with the span of 1800 mm. The longitudinal reinforcements were using diameter of 10 mm. Two reinforcements of Ø10 mm were put for compressive reinforcement and three reinforcements of Ø10 mm were put for tensile reinforcement. The shear reinforcement was using diameter of 8 mm. The shear reinforcements with spacing of 100 mm were put in the one fourth near to the support and the spacing of 150 mm were put in the middle span. Two points loading were used in the testing. The result shows that the load-carrying capacity of the self compacting reinforced concrete beam using polypropylene was a little bit higher than the self compacting reinforced concrete beam without polypropylene. The increment of load-carrying capacity of self compacting polypropylene fiber reinforced concrete was not so significant because the increment was only 2.80 % compare to self compacting non fiber reinforced concrete. And from the load-carrying capacity-deflection relationship curves show that both the self compacting polypropylene fiber reinforced concrete beam and the self compacting non fiber reinforced concrete beam were ductile beams.

INTRODUCTION

Concrete is a material for building construction which is made from portland-cement, water, fine and coarse aggregates. The concrete material is good in compressive strength, but very weak in tensile strength. To increase the tensile strength, usually the concrete was added by fiber materials.

There are several types of fiber materials that were usually used in concrete such as steel fibers, glass fibers, carbon fibers, and polypropylene fibers [1]. Investigation of fiber concrete using steel fibers had already been done by several reseachers in several decades ago [2-6]. It was shown that steel fibers improve the mechanical properties of concrete especially in the modulus of rupture and the splitting tensile strength [7]. However, steel fibers have disadvantages such as easily to corrode, higher weight, easily to damage the mixer, magnetic interference, and higher price [8]. Therefore, another fiber material was developed and used in concrete such as polypropylene fibers. Investigation of fiber concrete using polypropylene fiber was already done by researchers [8-10]. It was shown that polypropylene can improved the tensile strength of concretes.

To reduce a noise in the project due to the sound of vibrator in pouring of concrete, a self compacting concrete is a good choices. Application of self compacting concrete is more practical and faster than normal concrete. Investigation on self compacting concrete was also extensively carried out in several decades ago [11-13]. However,

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study on self compacting concrete using polypropylene is still rare. Therefore, study on self compacting concrete using polypropylene is still needed.

EXPERIMENTAL PROGRAM

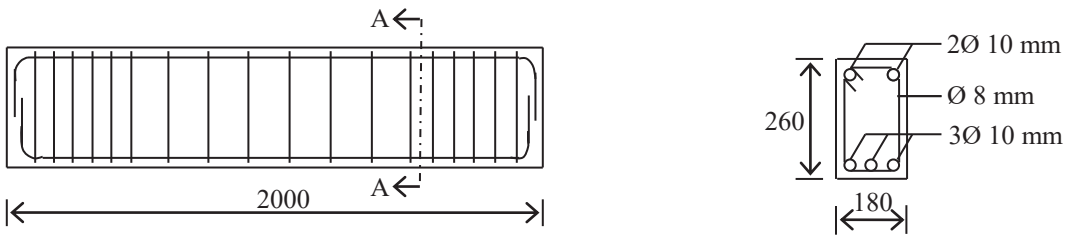
Materials

Materials of concrete (portland-cement, water, fine and coarse aggregates) were taken from local material. Silica fume was added in the concrete with the proportion 10 % of portland-cement weight. Superplasticizer with the proportion 1.1% of Portland-cement weight was used. Micro monofilament polypropylene fibers with the proportion 0.9 kg/m^3 of concrete weight were used in this study. The proportion of polypropylene fibers was based on the study of [14] that the optimum proportion of polypropylene fiber was 0.9 kg/m^3 of concrete.

Preparation of Specimens

To get the compressive strength, tensile strength, and modulus of elasticity of self compacting concrete, 54 cylinder specimens with the size of (150 mm×300 mm) were made. While to get the modulus of rupture 18 cylinder specimens with the size of (200 mm×200 mm×700 mm) were made. The non fiber concrete specimen was marked with BN, while the polypropylene fiber concrete specimen was marked with BS.

Four beam specimens were cast and tested in this study. Two beams were cast of self compacting reinforced concrete without fiber, and two beams were cast of self compacting fiber reinforced concrete using polypropylene. The beams specimen had the section of (180×260) mm and the length was 2000 mm. The beams had simple supported with the span of 1800 mm. The longitudinal reinforcements were using diameter of 10 mm. Two reinforcements with diameter of Ø10 mm were put for compressive reinforcement and three reinforcements with diameter of Ø10 mm were put for tensile reinforcement. The shear reinforcement was using diameter of 8 mm. The shear reinforcements with spacing of 100 mm were put in the one fourth near to the support and the spacing of 150 mm were put in the middle span. The size and detailing of beam specimen can be seen in Fig. 1.



(a) Reinforcement of the beam (b) Section A-A (unit in mm)

FIGURE 1. Detail of beam specimen

Properties of Fresh Concrete Testing

To get the properties of fresh self compacting concrete, three type properties of fresh self compacting concrete were tested. The testing of fresh self compacting concrete is following the European standard [15] and the properties to be tested were:

- Flowability/filling ability using slump-flow test
- Viscosity using T_{500} slump-flow test
- Passing ability using L-shape box.

Cylinder and Beam Specimen Testing

The compressive strength, splitting tensile strength, modulus of elasticity, and modulus of rupture testing were performed according to ASTM [16]. Universal Testing Machine (UTM) with capacity of 30,000 kgf was used to test the compressive strength, splitting tensile strength, modulus of elasticity, and modulus of rupture of concrete. The testing of compressive strength, splitting tensile strength, modulus of elasticity and modulus of rupture were conducted at the age of concrete of 28 days.

While testing of beam specimens were conducted in loading frame with the set-up specimen is depicted in Fig.2.

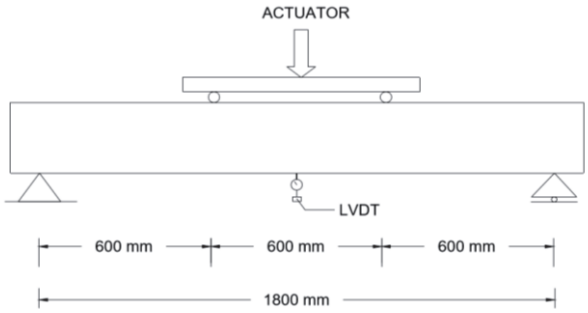


FIGURE 2. Set-up of beam specimen

The beam specimen was testing under load control. A load was given by the actuator with the capacity of 250 kN through the transfer beam, so the beam specimen was subjected two point loading as depicted in Fig. 2. A Linear Variable Differential Transformers (LVDT) was used to measure deflection of the specimen. The LVDT was placed at the middle of the specimen to measure the displacement in the vertical direction. Measured data of load and deflection were read through a computer driven data acquisition system using data logger.

RESULT AND DISCUSSION

The Properties of Fresh Concrete

To get the properties of fresh concrete, three type properties of fresh concrete were tested according to the European standard [14]. The results properties of non fiber concrete (BN1 and BN2) and polypropylene fiber concrete (BS1 and BS2) can be seen in Table 1.

TABLE 1. The result properties of fresh concrete

Code	Filling ability	Passing ability	Viscosity
	Slump flow (mm)	L-shape box (h_2/h_1)	T_{500} Slump flow (second)
BN1	710	0.90	3.4
BN2	713	0.95	3.0
BS1	650	0.85	4.0
BS2	646	0.83	4.2

According to European standard [14] that the range of filling ability is in between 550-850; the range of passing ability is in between 0.8-1.0; while the range of viscosity is in between 2-5. So, according to the result of fresh concrete testing in Table 1, it can be said that the concrete in this study can be classified as self compacting concrete.

Mechanics Properties of Concrete

The compressive strength of self compacting non fiber concrete and self compacting polypropylene fiber concrete at age 28 days can be seen in Table 2. The result shows that the compressive strength of self compacting polypropylene fiber concrete was lower than the self compacting non fiber concrete. The decreasing compressive strength of self compacting polypropylene fiber concrete was 28.89 % compare to self compacting non fiber concrete.

TABLE 2. The compressive strength of concrete.

Cylinder	Compressive strength (MPa)	Average (MPa)
BN1	45.96	
BN2	49.03	49.90
BN3	50.78	
BS1	34.72	
BS2	35.02	35.48
BS3	36.71	

The splitting tensile strength of self compacting non fiber concrete and self compacting polypropylene fiber concrete at age 28 days can be seen in Table 3. The splitting tensile strength of self compacting polypropylene fiber concrete was higher than self compacting non fiber concrete. The increasing splitting tensile strength of self compacting polypropylene fiber concrete was 2.64 % compare to self compacting non fiber concrete.

TABLE 3. The splitting tensile strength of concrete.

Cylinder	Splitting tensile strength (MPa)	Average (MPa)
BN1	4.38	
BN2	4.09	4.35
BN3	4.59	
BS1	4.58	
BS2	4.24	4.47
BS3	4.58	

The modulus elasticity of self compacting non fiber concrete and self compacting polypropylene fiber concrete at age 28 days can be seen in Table 4. The modulus elasticity of self compacting polypropylene fiber concrete was lower than self compacting non fiber concrete. The decreasing modulus elasticity of self compacting polypropylene fiber concrete was 9.98 % compare to self compacting non fiber concrete.

TABLE 4. The modulus elasticity of concrete.

Cylinder	Modulus of elasticity (MPa)	Average (MPa)
BN1	26.38×10^3	
BN2	30.65×10^3	28.53×10^3
BN3	28.56×10^3	
BS1	24.13×10^3	
BS2	26.93×10^3	25.68×10^3
BS3	25.98×10^3	

The modulus rupture of self compacting non fiber concrete and self compacting polypropylene fiber concrete at age 28 days can be seen in Table 5. The modulus rupture of self compacting polypropylene fiber concrete was higher than self compacting non fiber concrete. The increasing modulus rupture of self compacting polypropylene fiber concrete was 3.63 % compare to self compacting non fiber concrete.

TABLE 5. The modulus of rupture of concrete.

Cylinder	Modulus of rupture (MPa)	Average (MPa)
BN1	4.60	
BN2	4.67	4.66
BN3	4.70	
BS1	4.71	
BS2	4.85	4.83
BS3	4.92	

Load-carrying Capacity of Beam Specimen

The load carrying capacity-deflection curve of the beam specimens can be seen in Fig. 3. It can be seen that in general the curve of load-carrying capacity-deflection relationship in the lower load is increasing linearly. After first crack, the curve is increasing nonlinearly up to a value than the curve increasing almost horizontally up to failure. This phenomenon indicates that the beam specimen is ductile for both self compacting polypropylene fiber reinforced concrete beam as well as the non fiber reinforced concrete beam.

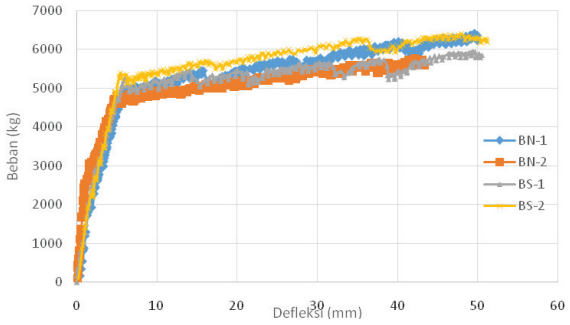


FIGURE 3. Load-carrying Capacity vs Deflection

The maximum load-carrying capacity of the beam specimen is shown in Table 6. It can be seen from Table 6 that the average load-carrying capacity of self compacting polypropylene fiber reinforced concrete was a little bit higher than self compacting non fiber reinforced concrete. The increment of load-carrying capacity of self compacting polypropylene fiber reinforced concrete was not so significant because the increment was only 2.80 % compare to self compacting non fiber reinforced concrete.

TABLE 6. The load-carrying capacity of beam specimens.

Beam	Load-carrying capacity (kg)	Average (kg)
BN1	61.96×10^2	59.68×10^2
BN2	57.39×10^2	
BS1	59.49×10^2	61.35×10^2
BS2	63.21×10^2	

Crack Pattern of Beam Specimen

The crack pattern of the self compacting non fiber reinforced concrete beams were shown in Fig. 4 and Fig. 5. The first crack was occurred in the bottom side of the beam in the middle span at the load of 24.12 kN and 24.59 kN for beam BN1 and BN2, respectively. The crack propagated vertically as the load increasing. Another flexural crack was occurred during the increasing of the load and then shear crack was occurred near to the support as shown in Fig. 4 and 5. After reaching the maximum load, then the beam was failure.

FIGURE 4. The crack pattern of BN1

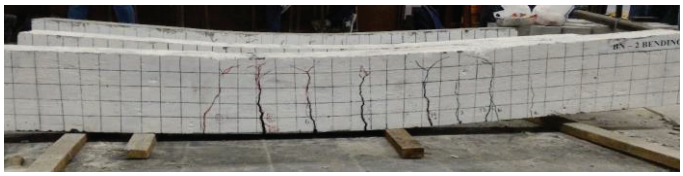


FIGURE 5. The crack pattern of BN2

The crack pattern of the self compacting polypropylene fiber reinforced concrete beams were shown in Fig. 6 and Fig. 7. The first crack of the beam BS1 and BS2 was occurred at 25.18 kN and 23.12 kN, respectively. Generally the crack pattern of self compacting polypropylene fiber reinforced concrete beam is similar to the non fiber reinforced concrete beam. The crack pattern of beam BS1 and BS2 is shown in Fig 6 and 7, respectively.

FIGURE 6. The crack pattern of BS1

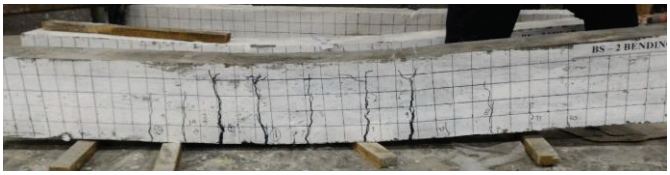


FIGURE 7. The crack pattern of BS2

CONCLUSION

Base on the experimental program, the following conclusion can be drawn:

- The compressive strength of self compacting polypropylene fiber concrete was lower than self compacting non fiber concrete. The decreasing compressive strength of self compacting polypropylene fiber concrete was 28.892 % compare to self compacting non fiber concrete.
- The splitting tensile strength of self compacting polypropylene fiber concrete was higher than self compacting non fiber concrete. The increasing splitting tensile strength of self compacting polypropylene fiber concrete was 2.644 % compare to self compacting non fiber concrete.
- The modulus elasticity of self compacting polypropylene fiber concrete was lower than self compacting non fiber concrete. The decreasing modulus elasticity of self compacting polypropylene fiber concrete was 9.983 % compare to self compacting non fiber concrete.

- The modulus rupture of self compacting polypropylene fiber concrete was higher than self compacting non fiber concrete. The increasing modulus rupture of self compacting polypropylene fiber concrete was 3.629 % compare to self compacting non fiber concrete.
- The average load-carrying capacity of self compacting polypropylene fiber reinforced concrete was a little bit higher than self compacting non fiber reinforced concrete. The increment of load-carrying capacity of self compacting polypropylene fiber reinforced concrete was not so significant because the increment was only 2.798 % compare to self compacting non fiber reinforced concrete.

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