6th Annual International Conference on
Architecture and Civil Engineering

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GSTF Partner Universities
## Conference Program

**DAY 1**

Date: 14th May 2018 (Monday)
Venue: Hotel Fort Canning, Singapore

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| 8.30 – 9.00 | **REGISTRATION & COFFEE**  
Keynote Address:  
"Architecture in the Means of Production"  
Prof. Mark S. T. Anderson  
Professor of Architecture  
University of California, Berkeley, USA |
| 9.00 – 9.40 | Keynote Address:  
"Dense and Green Building Typologies: Architecture as Urban Ecosystem"  
Prof. Thomas Schroepfer  
Singapore University of Technology and Design |
| 9.40 – 10.20 | Keynote Address:  
"New Tools for the Design and Construction of Systems-Based Architecture"  
Prof. Peter C. O. Anderson  
California College of the Arts, USA |
| 10.20 – 11.00 | Keynote Address:  
"Future Proofing the Profession: The New Architect"  
Mr Theodore EC Chan  
Director, CIAP Architects Pte Ltd  
Singapore Institute of Architects |
| 11.00 – 11.20 | REFRESHMENT BREAK |
| 11.20 – 12.00 | Keynote Address:  
"Architecture in Post Truth Era"  
Assoc. Prof. Ruzica Bozovic-Stamenovic  
School of Design and Environment, Department of Architecture  
National University of Singapore |
| 12.00 – 12.40 | Venue: Legends II  
Technology Research and Practice |
| 12.40 – 1.40 | LUNCH  
Venue: Legends I  
Architecture and Engineering Design, Theory and Teaching  
Venue: Legends III  
Technology in Urban and Regional Planning, Sustainability and Preservation |
| 1.40 – 2.00 | ACE 40  
Effect of Overloading on Fatigue Life of RC Beams Strengthened with FRP Sheets  
Dr. Houssam Toutanji  
Western Michigan University, USA  
ACE 65  
Architecture as Didactic Teacher: The Credence of Historical Primacy as Trope For Chicago’s Raison d’être  
Dr. Daniel Joseph Whittaker  
Illinois Institute Of Technology (IIT), USA  
ACE 22  
Study on Unconfined Compressive Strength of Black Cotton and Yellow Soil at Different Densities and Saturations  
Dr. Dhruval Dharmendra Shah  
Parul University, India |
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| 2.00 – 2.20 | ACE 38 Evaluating the Buildability of Architectural Geometries: Embedding Fabrication Awareness Into the Design of Concrete Elements  
Assoc. Prof. Yasha Jacob Grobman & Mr. Guy Austern  
Technion, Israel Institute of Technology |
| 2.20 – 2.40 | ACE 27 The Everyday Architectural Experience: A Comparative Study Among Three Provinces of Thailand  
Asst. Prof. Thirayu Jumsai Na Ayudhya  
King Mongkut's Institute of Technology Ladkrabang, Thailand |
| 2.40 – 3.00 | ACE 53 Experimental Study of Load-Carrying Capacities of Frame-Type Steel Scaffolds  
Prof. Jui-Lin Peng  
National Yunlin University of Science And Technology, Taiwan |
| 3.00 – 3.20 | ACE 109 An Investigation on the Historical Development and Heritage Value Perception of Beining Park in Tianjin, China  
Mr. Guan Rui  
Tianjin University, China |
| 3.20 – 3.30 | REFRESHMENT BREAK |
| 3.30 – 3.50 | ACE 125 An Investigation on the Characteristic Recognitions of Cultural Tourism “Characteristic Town” In China—Taking Yangliuqing, Tianjin as a Case  
Ms. Bingqian Cheng  
Tianjin University, China |
|        | ACE 159, 160 Designing Prestressed Shell by Waclaw Zalewski  
Prof. Waldemar Bober  
Wrocław University of Science & Technology, Poland |
|        | ACE 159, 160 Designing Prestressed Shell by Waclaw Zalewski  
Prof. Waldemar Bober  
Wrocław University of Science & Technology, Poland |
|        | ACE 145 Improving Walkability, Livability, and Safety Through Urban Street Retrofit Design  
Asst. Prof. Daniel Albuquerque  
United Arab Emirates University, UAE |
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<td>Asst. Prof. Simona Canepa &amp; Prof. Marco Vaudetti Politecnico of Torino, Italy</td>
<td>ACE 100 Outdoor and Indoor Collective Spaces</td>
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<td>ACE 57</td>
<td>Mr. Farhadur Reza, Dr. Anisha Noori Kakon &amp; Dr. Shoichi Kojima Janghigramar University, Bangladesh</td>
<td>A Socio-Economic and Building Geometry Based</td>
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<td>Studies on the Planning and Implementation of the Beautiful Countryside in Northern China</td>
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<td>Dr. Ana Silvia Aguilera Vieyra Hiroshima University, Japan</td>
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<td>ACE 93</td>
<td>Mr. Hew Cameron Merrett National Yunlin Science &amp; Technology University, Taiwan</td>
<td>Managing Water Catchments as Water Treatment Assets for Water Quality and Source Protection</td>
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<td>4.30 – 4.50</td>
<td>ACE 129 (AVI)</td>
<td>Ms. Zainab Al-Saadi College Of Architecture - Kuwait University</td>
<td>Using Space Syntax to Observe the Revaluation of Housing Prices in Kuwait</td>
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<td>Asst. Prof. Ratna Ghosh Amity University, India</td>
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<td>Ms. Treethip Pratoommanee Kasetsart University, Thailand</td>
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<td>Asst. Prof. Abigail J. Charest &amp; Ms. Shivani R. Kumar Wentworth Institute of Technology, USA</td>
<td>A Coast to Coast Analysis of Net Zero Energy Buildings Building Envelope Comparison</td>
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<td>ACE 162</td>
<td>Prof. Masashi Oji &amp; Mr. Kumar Yonjan Toyama University, Japan Arris Design Pvt. Ltd, India</td>
<td>A Basic Study on One of Reinforcement Method for Masonry Structure - Effect of Improvement of Mud-Mortar Joint by Quicklime</td>
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<td>ACE 24</td>
<td>Assoc. Prof. Meenakshi Singhal Guru Nanak Dev University, India</td>
<td>Walkability and Legislation: How Supportive is the Legislative Framework as Regards Pedestrian Concerns in the Indian Cities?</td>
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<td>An Assessment Photovoltaic Power, Self-Consumption Using Ice Thermal Energy Storage, In Residential Building of Thailand</td>
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<td>ACE 46 (AVI)</td>
<td>Asst. Prof. Marwan Halabi &amp; Asst. Prof. Chadi El Khoury Beirut Arab University, Lebanon</td>
<td>Pragmatic Design Decisions in Integral Digital Fabrication</td>
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<td>ACE 165</td>
<td>Asst. Prof. Bronne Dytoc Kennesaw State University, USA</td>
<td>A Pilot Study on Graphics-Based Learning Strategies in Architectural Structures Abstract</td>
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<td>ACE 86</td>
<td>Prof. Michele di Sivo G.d'Annunzio University, Chieti-Pescara, Italy</td>
<td>Inert Adaptability and Potential Adaptability as Strategies in the Design of Living Spaces</td>
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# DAY 2

**Date:** 15th May 2018 (Tuesday)  
**Venue:** Hotel Fort Canning, Singapore

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| 8.30 – 9.00 | **REGISTRATION & COFFEE**  
  **Keynote Address:**  
  "Fire Resistance of Normal Strength and High Strength ECC"  
  Dr. Tan Kang Hai  
  School of Civil and Environmental Engineering  
  Nanyang Technological University, Singapore |
| 9.00 – 9.40 | **Venue:** Legends I  
  Architecture and Engineering Design, Theory and Teaching  
  **Venue:** Legends II  
  Technology Research and Practice  
  **Venue:** Legends III  
  Technology in Urban and Regional Planning, Sustainability and Preservation |
| 9.40 – 10.00 | **ACE 144**  
  Enhancing Flat Slab's Punching Shear Resistance Using Post-Tensioned Cables  
  Dr. Mohamed Gomaa  
  Fayoum University, Egypt  
  **ACE 136**  
  Study on Role of Base Width and Diagrid Angle on The Performance of the Diagrid Buildings  
  Prof. Shambhu Sharan Mishra  
  NIT Patna, India |
| 10.00 – 10.20 | **ACE 158**  
  Preliminary Studies on Damages of Different Type of Residential Housing Structures Under Effect of Differential Settlement and The Proposed Research  
  Mr. Ting Leong Ang & xx  
  Universiti Teknologi Brunei  
  **ACE 135**  
  A Preliminary Study for Modelling the Behavioral Response to Static Loading of Porous Concrete by Using Disturbed State Concept  
  Dr. Pakdee Khobklang  
  Kasetsart University, Thailand |
| 10.20 – 10.40 | **ACE 113**  
  Impact Analysis of RC Cantilever Beam with Polyurea Resin using SPH Method  
  Mr. Mikihiro Kageyama & xx  
  Kyushu University, Japan  
  **ACE 152**  
  BIM with VR For Architectural Simulations: Building Information Models in Virtual Reality as an Architectural and Urban Designtool  
  Asst. Prof. Anders Hermund  
  Royal Danish Academy of Art School of Architecture, Denmark |
| 10.20 – 10.40 | **ACE 71**  
  BIM-Based Safe Path Finding for Building Evacuation  
  Assoc. Prof. Zhang Cheng  
  Xi’an Jiaotong-Liverpool University, China  
  **ACE 73**  
  Housing A Sensible Component: Increasing Livability Of The City Guwahati  
  Ms. Nabaneeta Sharma  
  Royal Global University, India |
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| 11.00 – 11.20 | ACE 118 A Fundamental Study on Hammering Sound Test of Deteriorated Concrete Structures  
Ms. Okamura Mari & Prof. Hiroki Tamai  
Kyushu University, Japan  
ACE 164 Geometrically Nonlinear Analysis of Thin Rectangular Plates on a Pasternak Foundation Using Groebner Bases  
Dr. Y. Jane Liu & Mr. Colin Perry  
Tennessee Tech University, USA  
ACE 143 Energy Based Design With Eco-Friendly Materials In Infrastructural Systems  
Mr. Prabhu V Hindustan Institute of Technology and Science, Padur, Chennai, India |
| 11.20 – 11.40 | ACE 200 An Experimental Evaluation of Post-Tensioned Anchorage Zones Using High Strength Concrete  
Prof Jee-Sang Kim  
Seokyeong University, South Korea  
ACE 194 Impact of Project Communications Effectiveness on Construction Disputes  
Prof. Mumtaz A. Usmen Wayne State University, USA  
ACE 115, 119 Low-Energy Facade for Sustainable Building Development Against Climate Change  
Dr Yuanli Lyu  
Xihua University, China |
| 11.40 – 12.00 | ACE 199 Bond Strength of Epoxy Coated Reinforcements for Various Compressive Strength of Concrete using Direct Pull-Out Test  
Dr. Kyung Suk Yoo  
Korea Railroad Research Institute, South Korea  
ACE 128 An Experiment Study on the Impact Resistance of RC Members with Reinforcement Corrosion  
Dr. Chi Lu  
Kyushu University, Japan  
ACE 61 (AVI) Study the Effect of Precipitation on the Performance of Wastewater Treatment Plant Using KSOM  
Dr. Syed Abbas Hussain Rizvi  
Heriot Watt University, UEA |
| 12.00 – 1.00 | LUNCH                                                                  |
| 1.00 – 1.20 | ACE 156 PARK-ability - The New Method in Landscape Architecture to Understand Behaviour on Site  
Mr. Christian Nollen & Prof Dirk Junker  
Hochschule Osnabrück - University of Applied Sciences, Germany  
ACE 172, 177, 197 Mechanical and Thermal Expansion Properties of RPC with Steel Fibers After Exposure to Elevated Temperatures  
Dr Ruizhen Yan  
Taiyuan University of Technology  
ACE 142 Construction of a Solar Farm on a Rolling Terrain: A Case Study  
Prof. Lonny Simonian  
California Polytechnic State University, USA |
| 1.20 – 1.40 | ACE 460 Science of Contemporary-Nusantara Architecture  
Dr Agung Murti Nugroho  
University of Brawijaya, Indonesia  
ACE 203, 208 The Simulation of Unsteady Flow in Lopburi River using HEC-GeoRAS  
Prof Preeyaphorn Kosa  
Saranaree University of Technology, Thailand  
ACE 146 Horticultual Urbanism  
Prof. Karl H.C. Ludwig  
University of Nürtingen, Germany |
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| 1.40 – 2.00 | **ACE 140** Preventing the Collapse of Reinforced Concrete (RC) Structures, and Support Work During Construction  
          Prof. John Smallwood  
          Nelson Mandela University, South Africa |
| 2.00 – 2.20 | **ACE 149** Rethinking the Public Realm: Behaviour Settings in Malaysian Cities  
         Prof. Robert Powell  
         Taylor's University Lakeside Campus, Malaysia |
| 2.20 – 2.40 | **ACE 84** Seismic Analysis of Brick Veneer Wall Systems: An Introductory Review of the State-of-the-Art  
        Dr. Niranjan Desai  
        Purdue University Northwest, USA |
| 2.40 – 3.00 | **ACE 75** Architectural Morphology of Fortified Palace in Pidhirtsi, Ukraine  
         Dr. Olha Tikhonova  
         University of Lisbon, Portugal |
| 3.00 – 3.20 | **ACE 49** Flexible Shear Connectors in a Tapered Composite Beam Optimized for Reuse  
         Dr. Martin Nijgh  
         Delft University of Technology, Netherlands |
| 3.20 – 3.40 | **ACE 55** Evaluation of School Zone Improvement Schemes  
         Dr. Lina Izzat Shbeeib  
         Al-Ahliyya Amman University, Jordan |
|         | **ACE 459** Zaryadye Park as The New Hybrid Landscape and Town-Planning Model in Moscow’s Historic Center  
         Dr. Elena Y. Zaykova  
         Agrarian and Technological Institute, Russia |
|         | **ACE 137** Indonesia’s Construction Ripple Phenomenon: How It Affects Yogyakarta’s Genius Loci  
        Dr. Trias Mahendarto  
        Universitas Atma Jaya  
        Yogyakarta, Indonesia |
|         | **ACE 62** The Existing Residential Building Stock in UAE: Energy efficiency and retrofitting Opportunities  
         Dr. Kheira K. Tabet Aoul, Dr. Rahma Abdelghani & Dr. Boshra Akhozheyah  
         United Arab Emirates University, UAE |
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<td>Strain Measurement in a Specimen Displaced In-Plane, Using An Open-Source Digital Image Correlation-Based Tool</td>
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<td>An Integrated Approach to Restructure the Existing City with New Transport System Using TOD Principles. A case of Kochi.</td>
<td>A Spatio-temporal assessment of Brownfield transformation in a Metropolis: Case of Kolkata India</td>
<td>Allocation of Infrastructure in City Region Based on Resilient Economic Landscapes of Development Preparedness: Cases Of Districts West Bengal and West Mithila Region</td>
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<td>Mr Aaditya Pratap Sanyal</td>
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| 5.20 – 5.30 | | |
| 6.00 – 9.00 | | |