



## TECHNICAL PROGRAM

**Tuesday, August 9 (Day 1)**

**Tuesday, August 9, 09:00 - 10:30**

### **D1S1A: Special Track Service Learning (Dewan Utama)- August 9, 09:00 - 10:30**

Discussion leader: *Dr. Aznah Nor Anuar, Universiti Teknologi Malaysia*

- Integrating Service Learning in a Community-Based Participatory Research: A Case Study of Centre for Advancement in Rural Education Informatics  
*Assoc. Prof. Dr. Shahida Sulaiman, Univeriti Teknologi Malaysia*
- Engineering Mapping system for Service Learning Project  
*Prof. Dr. O Kaung Lim, Pusan National University, Korea*
- Instilling Global Attributes Among Engineering Undergraduates Through A Community-Based Service Learning  
*Dr. Aznah Nor Anuar, Universiti Teknologi Malaysia*
- Cultivating Communication and Team-Working Skills to Undergraduates in Co-Curricular Service Learning  
*Assoc. Prof. Dr. Dayang Norhayati Abang Jawawi, Universiti Teknologi Malaysia*

### **D1S1B: Parallel Sessions 1 (Dewan Seminar) - August 9, 09:00 - 10:30**

Chair: *Dr. Zulfaa Mohamed-Kassim*

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| 9.00 am  | The Development and Analysis of Concept Inventory for Electrical and Electronics Engineering Undergraduate Courses<br>Nurul Hazlina Noordin  |
| 9.20 am  | Investigation on the impact of laboratories subjects on BEEE and BEPE students in Universiti Tenaga Nasional<br>Fazrena Hamid, Farah Hani Nordin, Ungku Anisa Ungku Amirulddin and Miszaina Osman                          |
| 9.40 am  | A Methodology on Assessing Program Educational Objectives for Undergraduate Engineering Programs<br>Alvin Chua, Andres Winston Oreta and Rosemary Seva   |
| 10.00 am | Application of Mathematical Competencies among Engineering Students through Service Learning Program<br>Abdul Halim Abdullah, Aznah Nor Anuar, Mahani Mokhtar, Johari Surif, Nor Hasniza Ibrahim and Noor Dayana Abd Halim |
| 10.20 am | Outreaching and engaging students with STEM through AEROFAIR<br>Zulfaa Mohamed-Kassim and Noorfazreena Kamaruddin  |

**D1S1C: Parallel Sessions 1 (Bilik Ilmuan 1) - August 9, 09:00 - 10:30**

Chair : *Dr. Mohd Fadzil Daud*

- 9.00 am      The Use of Augmented Reality Learning Environment to Enhance Students' Mental Cutting Skills and 3-Dimensional Development Skills  
Marlissa Omar, Dayana Farzeeha Ali and Mahani Mokhtar
- 9.20 am      Engineering Student Motivation and Learning in Indonesia  
Lisa Benson and Cheryl Allendoerfer
- 9.40 am      Readiness of Civil Engineering Faculty Members in Implementing MOOC  
Shahrin Mohammad, Yeong Huei Lee, Cher Siang Tan, Chang Sa'ar Chai, Mahmood Md. Tahir, Mohd Hanim Osman, Sariffuddin Saad, Yusof Ahmad, Baderul Hisham Ahmad, Mohd Yunus Ishak, Hidayah Abd Hassan, Che Ros Ismail and Mohd Nur Asmawisham Alel
- 10.00 am     Emotional Intelligence of Engineering Undergraduate in a Service Learning Programme  
Mohamad Norhakim Sahroni, Sharifah Kamilah Syed Yusof, Zaleha Binti Ismail and Yudariah Mohammad Yusof
- 10.20 am     Contextual Knowledge Elements Utilization In 3D CAD Model Visualization From Practicing Engineers Perspective  
Mohd Fahmi Adnan, Mohd Fadzil Daud and Muhammad Sukri Saud

**D1S1D: Parallel Sessions 1 (Bilik Ilmuan 2) - August 9, 09:00 - 10:30**

Chair : *Dr. Kamilah Radin Salim*

- 9.00 am      Evaluation of Laboratory Facilities for Engineering Technology Programs in Malaysian Technical Universities  
Kamilah Radin Salim, Kamsiah Ismail, Habibah Norehan Haron, Rozita Juliana, Rosmah Ali, Noor Hamizah Hussain, Morina Abdullah, Norhayati Mohamed Nor, Normah Mulop and Zainai Mohamed
- 9.20 am      Engineering Undergraduates' Motivation in Learning Computer Programming  
Nor Azlinda Azmi, Khairiyah Mohd-Yusof, Fatin Phang, Saharudin Haron, Nor Alafiza Yunus, Zarina Abdul Muis and Syed Ahmad Helmi
- 9.40 am      Evaluating Knowledge Transfer Success in Personal Learning Environments in Higher Learning Institution  
Nur Syafiqah Mohamad Sani and Noreen Arshad
- 10.00 am     UTM Sustainable Living Laboratory Campus; Are the Implementations Effective?  
Rozana Zakaria, Gamal Al Qaifi, Nur IzieAdiana Abidin, Mohamad Sukeri Khalid, Abdul Rahim Abdul Hamid, Shaiful Amri, Eeydzah Aminudin, Irina Safitri Zen and Masalah Bandi
- 10.20 am     The Impact of Instructional Scaffolding in Social Collaborative Learning Environment on Engineering Students' Knowledge Construction  
Tan May Ling and Jamalludin Harun

**Tuesday, August 9, 11:00 – 13:00**

**Plenary Forum 1 (Dewan Utama)- August 9, 11:00 – 13:00**

Moderator: *Professor Dr. Wan Mansor Wan Mohammad, Universiti Kuala Lumpur*

11.00 am Current Status and Future Direction in Engineering Education: Overcoming the Challenges

*Prof. Dr. Manuel Bellino (Philippines)*

*Dr. Qaiser Hameed Malik (Pakistan)*

*Prof. Dr. Ray Yueh-Min Huang (Taiwan)*

*Dr. Eddie Ng (Hong Kong)*

*Prof. Dr. Sung-Jin Song (Korea)*

*Prof. Dr. Robin Clark (UK)*

*Dr. Yogesh Velankar (India)*

**Tuesday, August 9, 14:00 – 15:30**

**Plenary Forum 2: Industry Forum (Dewan Utama) - August 9, 14:00 – 15:30**

Moderator: *Associate Professor Dr. Naziha Ahmad Azli, Universiti Teknologi Malaysia*

14.00 pm Engineering Education in Global Digital Economy and Its Impact on Developing Countries

*Dato' Ir Dr. Lee Yee Cheon*

*Malaysian Chairman, Governing Council, International Science Technology and Innovation Centre for South-South Cooperation under the auspices of UNESCO (ISTIC), Malaysia*

14.30 pm Future Direction and Challenges in Engineering Education in the 21st Century from Engineering Accreditation Viewpoint

*Prof. Dato' Ir. Dr. Wan Hamidon Wan Badaruzzaman,*

*Director of Engineering Accreditation Department (EAD), Board of Engineers Malaysia*

**Tuesday, August 9, 15:30 - 17:30**

**D1S2A: Special Track on Chemical Engineering Education (Dewan Utama)- August 9, 15:30 - 17:30**

Discussion leader: *Dr. Mohammad Tazli Azizan, Universiti Teknologi PETRONAS*

- Improving Students' Understanding Of Reaction Engineering Course Via Flipped-Coop Learning  
*Dr. Raihan Mahirah Ramli, Universiti Teknologi PETRONAS, Malaysia*
- Implementing Authentic Learning in a Green Boiler Technology Chemical Engineering Elective Course: Experiences at the University of Santo Tomas, Manila, Philippines  
*Prof. Alberto A. Laurito, University of Santo Tomas, Philippines*
- Using Problems In Teaching Difficult Chemical Engineering Content: An Example In Process Control  
*Dr. Mohd Kamaruddin Abd Hamid, Unlversiti Teknologi Malaysia*
- 1<sup>st</sup> Year Orientation Programme: Sustaining Attendance And Interest Of The New Generation  
*Dr. Nurlidia Mansor, Universiti Teknologi PETRONAS, Malaysia*
- Motivating Students Interest To Learn Using Active Learning Strategies For Separation Process II  
*Dr. Nurhayati Mellon, Universiti Teknologi PETRONAS, Malaysia*
- Integrated Course Design of the Introduction to Engineering Course  
*Dr. Aziatul Niza Sadikin, Unlversiti Teknologi Malaysia*

**D1S2B: Parallel Sessions 2 (Dewan Seminar) - August 9, 15:30 - 17:30**

Chair : *Assoc. Prof. Dr. Fatin Aliah Phang*

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| 3.30 pm | Enhancing Student's Problem Solving Skills in Technical and Vocational Education and Training<br><i>Sharifah Zainaf, Roselainy Abdul Rahman and Robiah Ahmad</i>  |
| 3.50 pm | Use Cooperative Group Learning in Improving the Problem Solving Performance in a Surveying Course of Civil Engineering Students<br><i>Maria Cecilia Paringit</i>  |
| 4.10 pm | A Framework for Learning Analytics Intervention in e-learning<br><i>Si Na Kew and Zaidatun Tasir</i>  |
| 4.30 pm | Authentic Learning Environment for the Implementation of Data Structure Subject through MOOC: A pilot study<br><i>Nor Bahiah Ahmad</i>  |
| 4.50 pm | What are Complex Engineering Problems in the Eyes of Engineering Lecturers?<br><i>Fatin Phang, Syed Ahmad Helmi, Khairiyah Mohd-Yusof, Aznah Nor Anuar, Azmahani Abdul Aziz, Yusof Ahmad, Noorzana Khamis, Mohd Fadzil Daud and Yudariah Mohammad Yusof</i> |

**D1S2C: Parallel Sessions 2 (Bilik Ilmuan 1) - August 9, 15:30 - 17:30**

Chair : *Dr. Dereje Engida Woldemichael*

- 3.30 pm Adopting and Implementing Active Learning and Cooperative Learning Approaches in Lecture Based Engineering Class  
Dereje Engida Woldemichael and Azman Zainuddin
- 3.50 pm Engineering Students' Pattern of Metacognition during Complex Problem Solving at Digital Signal Processing Laboratory  
Narina A. Samah, Hadijah Jaffri, Ahmad Zuri Sha'ameri, Usman Ullah Sheikh, Naziha Ahmad Azli and Lokman Tahir
- 4.10 pm Assessing Students' Practical Intelligence in Hands-On Electrical Laboratory via Psychomotor Domain by using Engineers Automated Testing Kit  
Mohd Hisam Daud, Zol Bahri Hj. Razali and Maizam Alias
- 4.30 pm Outcomes Assessment and Analysis using iOBE  
Zulfaa Mohamed-Kassim and Noorfazreena Kamaruddin
- 4.50 pm Impact of an Introduction to Engineering Course on First year students' view on engineering  
Nur Fazirah Jumari, Khairiyah Mohd-Yusof and Fatin Phang
- 5.10 pm A Conceptual Framework for Assessing Mathematical Competencies of Engineering Students  
Nur Izrah Mohd Puzi, Yudariah Mohammad Yusof and Naziha Ahmad Azli

**D1S2D: Parallel Sessions 2 (Bilik Ilmuan 2) - August 9, 15:30 - 17:30**

Chair : *Dr. Noor Dayana Abd Halim*

- 3.30 pm Cognitive Conflict Strategies in Video-Based Learning Enhance Students' Conceptual Change  
Radhiah Ab Rahim, Norah Md Noor and Norasykin Zaid
- 3.50 pm Awareness and Procedural Knowledge as Predictors of Students' Intention to Use BookMyne: An Exploratory Study  
Mohd Nihra Haruzuan Bin Mohamad Said and Zaleha Binti Ismail
- 4.10 pm Meta-analysis on Interaction in Online Learning  
Noor Dayana Abd Halim and Masarrah Abdul Mutalib
- 4.30 pm Towards Integrating GIS to the University's Educational Programme  
Stephanie Mae Salcedo and Rejen L Albores
- 4.50 pm Open-Ended Malik & Naveed Interventions (OMNI) Techniques for Engineering Freshmen  
Qaiser Malik and Naveed Zafar
- 5.10 pm MOOCs in Engineering Education - a literature review  
Azhar Rauf, Mohd Fadzil Daud and Mohd Nihra Haruzuan Bin Mohamad Said



# RCEE2016

6th REGIONAL CONFERENCE ON  
ENGINEERING EDUCATION 2016

DATE 9-10 AUGUST 2016  
VENUE KUALA LUMPUR



## TECHNICAL PROGRAM

**Wednesday, August 10 (Day 2)**

**Wednesday, August 10, 09:00 - 10:15**

### **D1S3A: Special Track on Grand Challenges (Dewan Utama) - 09:00 - 10:15**

Discussion leader: *Professor. Dr. Sung-Jin Song, Sungkyunkwan University*

- Facilitating Learning and Teaching in a Common Core Course on Grand Challenges: A Blended Learning Approach  
*Dr. Eddie Ng, Hong Kong University of Science & Technology*
- Grand Challenge Tech+ Innovator Program of Sungkyunkwan University Hub Center  
*Prof. Dr. Sung-Jin Song, Sungkyunkwan University, Korea*
- Engineering a Holistic Education  
*Prof. Dr. Mushtak Al-Atabi, Taylor's University, Malaysia*

### **D1S3B: Parallel Sessions 3 (Dewan Seminar) - 09:00 - 10:15**

Chair : *Dr. Roselainy Abdul Rahman*

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| 9.00 am  | Student perception of use and level of implementation of logbooks in individual final year projects<br>Sarah Junaid, Paul Gorman, Laura Leslie and Mark Prince                                  |
| 9.20 am  | Teaching and Learning Intervention Strategy to Increase Students' Use of Deep Learning Approach<br>Norsyarizan Shahri, Roselainy Abdul Rahman, Noor Hamizah Hussain and Yudariah Mohammad Yusof |
| 9.40 am  | An Innovative Approach to Develop Global Engineers by Supporting the Students via Diversity in Engineering Education<br>Rutika Ghariya, Kalp Bhatt, Tosha Shukla and Juned Shaikh               |
| 10.00 am | Importance of Oral Communication Strategies to Engineering Students<br>Hairuzila Idrus  |

**D1S3C: Parallel Sessions 3 (Bilik Ilmuan 1) - 09:00 - 10:15**

Chair : *Mdm. Nur Ayuni Shamsul Bahri*

- 9.00 am      Development of Problem-solving Process Rubrics (PPR) in Assessing Problem Solving Skills  
Nur Ayuni Shamsul Bahri, Naziha Ahmad Azli and Narina A. Samah
- 9.20 am      Perception of Lecturers on Problem Based Learning in Civil and Environmental Engineering Courses  
Filzah Amani
- 9.40 am      Activity Theory: Inculcating Fundamental Engineering skills and Attributes Through Mini-Project  
Laboratory Activity  
Md. Shahar Aftanasar, Norizah Mohamad and Ahmad Nazri Ali
- 10.00 am     Impact of Faculty Satisfaction and Student Feedback on Students' Performance- A Case Study of  
FAST-National University  
Farrukh Idrees, Waseem Ikram and Azhar Rauf

**D1S3D: Parallel Sessions 3 (Bilik Ilmuan 2) - 09:00 - 10:15**

Chair : *Mdm. Azmahani Abd Aziz*

- 9.00 am      Promoting ethical skills in first year engineering students through socially relevant experiments  
Yogesh Velankar, Gopalkrishna Joshi and Preethi Baligar
- 9.20 am      Evidence-Based Personas of First Year Engineering Students as Potential Pedagogical Tool  
Aisha Mahmood, Yudariah Mohammad Yusof and Mohd Fauzi Othman
- 9.40 am      Skills development among first year engineering students through "Introduction to Engineering"  
course  
Nur Shahira Samsuri, Khairiyah Mohd-Yusof and Azmahani Aziz
- 10.00 am     A response to the twenty-first century challenges to philippine engineering education: innovative  
and revitalized graduate programs in engineering education  
Manuel Belino

**Wednesday, August 10, 10:15 - 11:00**

**Keynote: Transformation in Engineering Education (Dewan Utama) - 10:15 - 11:00**

Chair: *Prof. Dr. Khairiyah Mohd Yusof*

- 10.15 am     Engineering Education Practice: What Needs to Change?  
*Professor Dr. Jeffrey E. Froyd, Texas A&M University*

**Wednesday, August 10, 11:15 - 13:00**

**D2S1A: Special Track on Student Centred Learning (Dewan Utama) - 11:15 - 13:00**

Discussion leader: *Assoc. Prof. Dr. Yudariah Mohamad Yusof, Universiti Teknologi Malaysia*

- Student Centred Active Learning: Why and How  
*Assoc. Prof. Dr. Lisa Benson, Clemson University, USA*
- Students' Participation in Student-Centred Learning: What are the most encouraging elements?  
*Dr. Alias Masek, Universiti Tun Hussein Onn Malaysia*
- Transformation from Teacher Centred Learning: The UTP Experience  
*Dr. Mohammad Tazli Azizan, Universiti Teknologi PETRONAS, Malaysia*
- Transitions of Teaching Conceptions from Teacher Centred to Student Centred  
*Prof. Dr. Khairiyah Mohd-Yusof, Universiti Teknologi Malaysia*

**D2S1B: Parallel Sessions 4 (Dewan Seminar) - 11:15 - 13:00**

Chair : *Assoc. Prof. Dr. Naziha Ahmad Azli*

11.15 am	Collaboration between University and Local Government Units on a National Flood Hazard Mapping Project Sim Joseph Fernandez, Alan Milano, Dave Charity Gambuta and Elizabeth Edan Albiento
11.30 am	Preliminary Study on the Prominent Skills in the Entrepreneurial Skill Set in the Context of Civil Engineering Practice Christie Entika, Shahrin Mohammad and Mohd Khata Jabor
11.45 am	Using an analytic hierarchy process to develop Innovation DNA for Industry-oriented applications in mechanical design of vocational college students Dyi-Cheng Chen
12.00 pm	Civil Engineering Exit Test Yusof Ahmad
12.15 pm	Engineering Education at Kanazawa Institute of Technology: To Foster Engineers Who can Make Ethically and Professionally Appropriate Decisions Fumihiko Tochinai
12.30 pm	Collaboration between University and Local Government Units on a National Flood Hazard Mapping Project Sim Joseph Fernandez, Alan Milano, Dave Charity Gambuta and Elizabeth Edan Albiento



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**D2S1C: Parallel Sessions 4 (Bilik Ilmuan 1) - 11:15 - 13:00**

Chair : *Assoc. Prof. Dr. Zaleha Ismail*

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| 11.15 am | Harnessing Mathematical Thinking Powers of Engineering Students' in a Computer Support Learning Environment (CSLE)<br>Fereshteh Zeynivandnezhad, Zaleha Binti Ismail and Yudariah Mohammad Yusof  |
| 11.30 am | Lessons in the implementation of Continuous Quality Improvement in the Civil Engineering program of De La Salle University<br>Mario De Leon, Lessandro Estelito Garciano and Andres Winston Oreta |
| 11.45 am | Enhancing the Employability of Engineering Graduates by Developing and Empowering the Faculties<br>Prafulla Hatte and Yogesh Bhalerao   |
| 12.00 pm | Laboratory Practices for Formative Assessment in Undergraduate Microwave Engineering Education<br>Kok Yeow You  |
| 12.15 pm | Desired Mathematical Competencies in Outcome Based Engineering Curriculum<br>Soheila Firouzian, Zaleha Binti Ismail, Roselainy Abdul Rahman and Yudariah Mohammad Yusof                           |
| 12.30 pm | Mathematical competencies among postgraduate students<br>Nur Athirah Aziz, Yudariah Mohammad Yusof and Zaleha Binti Ismail  |

**D2S1D: Parallel Sessions 4 ( Bilik Ilmuan 2) - 11:15 - 13:00**

Chair : *Dr. Nurul Farhana Jumaat*

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| 11.15 am | Predicting Students' Performance based on Instructors' Pattern of Metacognitive Scaffolding<br>Nurul farhana Jumaat and Zaidatun Tasir                              |
| 11.30 am | Impact of Affirmative Action in Engineering Education: Case study of an affiliated private engineering college in India<br>Suhasini Desai                           |
| 11.45 am | Decision Support System for Awarding Shcolarship Using SAW and TOPSIS<br>Ni Gusti Ayu Putu Harry Saptarini and Putu Indah Ciptayani                                 |
| 12.00 pm | Effectiveness of Using BizzApss in Enhancing Students' Achievement With Different Learning Styles<br>Noor Dayana Abd Halim, Mahani Mokhtar and Abdul Halim Abdullah |
| 12.15 pm | Measuring Critical Thinking In Online Discussion: Analysis Model<br>Nurul Nadwa Zulkifli, Noor Dayana Abd Halim and Noraffandy Yahaya                               |
| 12.30 pm | The Impact of Feedback Phase to the Development of ICT Product: Case Study Software Project Course<br>Harry B. Santoso, Fauzan H. Sudaryanto and Wade Goodridge     |
| 12.45 pm | Video Learning Practices Enhancing Students Critical Thinking Skills<br>Nurul 'Izzati Hamizan, Norasykin Zaid, Norah Md Noor and Mahani Mokhtar                     |

**Wednesday, August 10, 14:00 - 16:30**

**D2S2B: Special Track on STEM Education (Dewan Seminar) - 14:00 - 16:30**

Discussion leader: *Assoc. Prof. Dr. Fatin Aliah Phang, Universiti Teknologi Malaysia*

- Strengthening STEM Education for Industry 4.0  
*Dr. Raslan Ahmad, Malaysian Industry-Government Group for High Technology (MIGHT), Malaysia*
- Cultivate Living Skills through Young Innovate Program  
*Dr. Chew Yen Seng, Social Enterprise of Dream Catcher Sdn Bhd, Malaysia*
- Education for Hire: Multi-Faceted Industry and Academia Collaborative Education Program in Building Sustainable Dynamic Workforce  
*Dr. NorAzmi Alias, Collaborative Research in Engineering Science & Technology Center, Malaysia*
- Strengthening Sustainability of STEM Education through Smart Partnerships  
*Assoc. Prof. Dr. Zaleha Ismail, Persatuan Pendidikan Sains dan Matematik Johor (PPSMJ) Malaysia*
- STEM Learning Activities at Centre for Engineering Education  
*Assoc. Prof. Dr. Fatin Aliah Phang, Universiti Teknologi Malaysia*
- Cross-Border Learning for Developing International Perspectives on STEM Education  
*Dr. Suhaidah Tahir, Institut Pendidikan Guru Kampus Ipoh Malaysia*
- STEM Education Experiences from Singapore: Harnessing the Formal and Informal Education Sectors for Synergy  
*Assoc. Prof. Dr. R. Subramaniam, Nanyang Technological University, Singapore.*

**D2S2C: Parallel Sessions 5 (Bilik Ilmuan 1) - 14:00 - 16:30**

Chair : *Dr. Muhammad Khair Noordin*

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| 2.00 pm | Level of Non-Technical Skills Among Electrical Engineers in Malaysia: Perceptions from Fresh Engineers and Senior Engineers<br>Muhammad Khair Noordin and Mohd Safarin Nordin  |
| 2.20 pm | Multimedia Instruction Applications for Engineering Education<br>Ataollah Zarei, Khairiyah Mohd-Yusof and Mohd Fadzil bin Daud   |
| 2.40 pm | Enhancing Sustainability Knowledge using Problem among Engineering Students<br>Azmahani Aziz, Khairiyah Mohd-Yusof and Amirmudin Udin  |
| 3.00 pm | From Classroom To Commercialisation of Interactive Pressure Vessel Design, iPVD<br>Nur Kamarudin   |
| 3.20 pm | Measurement of Spiritual Quotient in the Student Holistic Development Programme<br>Mohd Hanim Osman, Norazmallail Marni, Ajmain Saffar, Sarifuddin Saad, Shahrin Mohamad   |
| 3.40 pm | Enhancing High Order Thinking Skills (HOTS) and Improving Teamwork Skills among Chemical Engineering Students through the Development of Board Game Activity via Cooperative Learning<br>Mohammad Tazli Azizan, Hairuzila Idrus, Nurhayati Mellon, Suzana Yusup, Raihan Mahirah Ramli, Haslinda Zabiri and Dzulkarnain Zaini |

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**D2S2D: Parallel Sessions 5 (Bilik Ilmuan 2) - 14:00 - 16:30**

Chair : *Mr. Mohd Fadzli Ali*

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| 2.00 pm | A Design Framework of Teachers' Professional Development in Indonesia<br>Anton Subarno, Mei-Ying Chien and Wen-Fu Pan  |
| 2.20 pm | Developing Critical Thinking Skill Through The Use of Collaborative Asynchronous Online Discussion Based on Spod Model<br>Mohd Fadzli Ali  |
| 2.40 pm | Reinforcing Teacher's Role in Retaining Students' Interests Discussing Online in their Learning Process at Malaysian Tertiary Institution<br>Mohd Fadzli Ali   |
| 3.00 pm | Implementation of Group endeavours in Service Learning among teachers in Singapore<br>Fatimah Zahra Abdul Mutalib, Mahani Mokhtar, Noor Dayana Abd Halim, Dayana Farzeeha Ali and Abdul Rahim Hamdan |
| 3.20 pm | Conceptual Framework of Innovative Product Development through Problem Oriented Project Based Learning<br>Sarimah Ismail, Nornazira Suhairom, Dayana Farzeeha Ali, Rohana Hamzah                     |