



**1<sup>st</sup> International Conference on Mineral Engineering  
and Materials Science (iCMEMS 2017), 20-22 Nov  
2017, Sydney, Australia**

**2<sup>nd</sup> GCSTMR CONGRESS**

**Venue: Western Sydney University, Building EA,  
Parramatta South Campus, Sydney, Australia**

*[Corner of Victoria Road and James Ruse Drive (entrance via Victoria Road),  
Parramatta South, Sydney]*

Organized by

*Global Circle for Scientific, Technological and Management Research  
(GCSTMR), Sydney, Australia*

**Day 1 – Monday 20 November 2017**

<b>Time</b>	<b>Session</b>
8:30 – 9:30	<b>Registration</b> Parramatta South Campus Room: Building EA.G Foyer
9:30 – 10:00	<b>Conference Opening</b> Building EA, Parramatta South Campus Room: EA.G.18(LT01)
10:00 – 10:45	<b>Plenary 1 - Professor Ian D. Moore, Queen's University, Ontario, Canada</b> Title: Geomechanics of Trenchless Pipe Installation, Repair and Replacement Chair: Professor Chin Leo Room: EA.G.18(LT01)
10:45 – 11:15	<b>MORNING TEA</b> Room: Building EA.G Foyer
11:15 – 12:00	<b>Plenary 2 – Professor Xiao-Ling Zhao, Monash University, Australia</b> Title: Research into Hybrid Construction utilising FRP and Seawater sea sand concrete Chair: Associate Professor Fidelis Mashiri Room: EA.G.18(LT01)
12:00 – 12:45	<b>Plenary 3 – Professor Ashish Sharma, University of New South Wales, Australia</b> Title: Water Resources Engineering and climate change: Recent developments and future challenges Chair: Associate Professor Ataur Rahman Room: EA.G.18(LT01)
12:45 – 13:45	<b>LUNCH</b> Room: Building EA.G Foyer
	<b>Session 1D: Mineral Engineering and Materials Science</b> Co-chairs: Prof Yinghe He and Prof Cheng-Ying Jiang Room: EA.G.34
13:45 -14:05	Invited paper title: Graphene-conducting polymer hybrids in photovoltaic Applications (Paper ID: iCMEMS_41) <i>Arun K. Nandi</i>
14:05 - 14:25	Invited paper title: Industrial applications of green circulation and biological extraction of copper from low grade copper ore (Paper ID: iCMEMS_4) Jiankang Wen, Bowei Chen, Biao Wu, He Shang, Jinghe Chen and Laichang Zou
14:25 – 14:40	Effect of polymer blending on the properties of coal tars produced by pyrolysis (Paper ID: iCMEMS_19) <i>Pramod Koshy, Seon Kyung Choi, Esmaeil Adabifiroozjaei, Sushil Gupta, Charles C. Sorrell, Martin P. Bucknall, Donald Thomas, Aditya Rawal and Dongmin Jang</i>

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14:40 – 14:55	Effect of codopant (Co + V) concentration and distribution on the photocatalytic properties of sol-gel-derived TiO <sub>2</sub> thin films (Paper ID: iCMEMS_20) <i>Wen-Fan Chen, Gustad Irani, Rong Liu, Charles C Sorrell and Pramod Koshy</i>
14:55 – 15:10	Thermal analysis of coking coal for the heat consumption during carbonization (Paper ID: iCMEMS_32) <i>Dongmin Jang</i>
15:10 – 15:25	High-temperature strength evolution in cokes (Paper ID: iCMEMS_17) <i>Pramod Koshy, Helen Reilly, Luisa Schreck, Wen-Fan Chen, Sushil Gupta, Charles C Sorrell, Ji-Youn Arns, Christoph Arns, Nick Andriopoulos, Kim Hockings and Michael Drew</i>
15:25 – 15:55	<b>AFTERNOON TEA</b> <b>Room: Building EA.G Foyer</b>
15:55 – 16:40	<b>Plenary 4 – Professor Charles Christopher Sorrell, University of New South Wales, Australia</b> <b>Title: Percolated Single-Crystal Mullite Fibres from Fly Ash: Vitreous Waste Material to High-Performance Refractory</b> <b>Chair: Dr Qinghua Zeng</b> <b>Room: EA.G.18(LT01)</b>
16:40 – 17:25	<b>Plenary 5 – Professor Junbin Gao, The University of Sydney, Australia</b> <b>Title: Clustering on Manifolds</b> <b>Chair: Dr M Rafiqul Islam</b> <b>Room: EA.G.18(LT01)</b>
17:25 – 18:10	<b>Plenary 6 – Dr M Rafiqul Islam, Charles Sturt University, Australia</b> <b>Title: Cumulative Timeline Analysis for Data Classification</b> <b>Chair: Professor Phill Kyu Rhee</b> <b>Room: EA.G.18(LT01)</b>

**Day 2 – Tuesday 21 November 2017**

<b>Time</b>	<b>Session</b>
<b>8:00 – 9:00</b>	<b>Registration</b> Parramatta South Campus Room: Building EA.G Foyer
<b>9:00 – 9:45</b>	<b>Plenary 7 – Professor Ashantha Goonetilleke, Queensland University of Technology, Australia</b> Title: Management of Urban stormwater pollution: Progress and challenges Chair: Associate Professor Ataur Rahman Room: EA.G.18(LT01)
<b>9:45 – 10:30</b>	<b>Plenary 8 - Professor Buddhima Indraratna, University of Wollongong, Australia</b> Title: Ground Improvement for Transport Infrastructure Chair: Professor Chin Leo Room: EA.G.18(LT01)
<b>10:30 – 11:00</b>	<b>MORNING TEA</b> Room: Building EA.G Foyer
	<b>Session 2D: Mineral Engineering and Materials Science</b> Co-chairs: Prof Nil Ratan Bandyopadhyay and Prof Arun K. Nandi Room: EA.G.34
<b>11:00 – 11:20</b>	Invited paper title: Luminescence from silicon nanostructures <i>Nil Ratan Bandyopadhyay</i>
<b>11:20 – 11:40</b>	Invited paper title: A multi-scale computation modelling study on grinding classification process (Paper ID: iCMEMS_15) <i>Wenjie Rong, Tao Song, Yuqing Feng, Peter Witt, Phil Schwarz, Baokuan Li and Junwu Zhou</i>
<b>11:40 – 11:55</b>	Flotation separation of muscovite from quartz using mixed anionic/cationic collectors (Paper ID: iCMEMS_26) <i>Li Wang, Bin Ji, Wei Sun, Yuehua Hu, Runqing Liu, Pan Chen, Zhiyong Gao and Chenyang Zhang</i>
<b>11:55 – 12:10</b>	Carbon nanotubes@graphene oxide hybrid hydrosols sealed in dialysis bag for trace Gd(III) removal from water and their synergistic enhancement effect (Paper ID: iCMEMS_24) <i>Weifan Chen, Lanyu Guo, Mingpeng Zhuo and Yongxiu Li</i>
<b>12:10 – 12:25</b>	Solution-processed organic/inorganic nanocomposites for high-performance human-interactive sensors (Paper ID: iCMEMS_35) <i>Ban-Suk Park, Byoung-Cheol Kang and Tae-Jun Ha</i>
<b>12:25 – 12:40</b>	A Study of Processing Options of Mineral Concentrates: Onshore vs Offshore considerations (Paper ID: iCMEMS_39) <i>P.N.K. De Silva</i>
<b>12:40 -13:40</b>	<b>LUNCH</b> Room: Building EA.G Foyer

<b>13:40 – 14:15</b>	<b>Plenary 9 - Professor Raman Singh, Monash University, Australia</b> <b>Title: Graphene Coating and Alloy Nanocrystallinity: Novel Nano Approaches for Remarkable Corrosion Resistance</b> <b>Chair: Associate Professor Sri Bandyopadhyay</b> <b>Room: EA.G.18(LT01)</b>
<b>14:15 -14:50</b>	<b>Plenary 10 - Professor Shams Rahman, RMIT University, Australia</b> <b>Title: Supply Chain Connectivity, Business Sustainability and Ethics</b> <b>Chair: Associate Professor Aatur Rahman</b> <b>Room: EA.G.18(LT01)</b>
	<b>Session 3D: Mineral Engineering and Materials Science</b> <b>Co-chairs: Dr Qinghua Zeng and Prof Jiankang Wen</b> <b>Room: EA.G.34</b>
14:50 – 15:05	Investigation of breakage rate variation of particle beds using DEM simulation (Paper ID: iCMEMS_25) <i>Ebrahim Ghasemi Ardi, Aibing Yu and Runyu Yang</i>
15:05 – 15:20	A new tailings dam stability monitoring technique using guided waves (Paper ID: iCMEMS_10) <i>Wen He, Zheng Qin, Wenfang Shi, Kui Zhao and Haigang Li</i>
15:20 – 15:35	A molecular dynamics study of CO <sub>2</sub> adsorption in fluorinated and non-fluorinated HKUST-1: (Paper ID: iCMEMS_44) <i>Pan Yang, Kejun Dong, Qinghua Zeng</i>
15:35 – 15:50	Effect of moisture on the performance of a gas cyclone (Paper ID: iCMEMS_31) Ruizhi Jin, Erfan Keshavarzian, Bo Wang, Kenny Kwok, Ming Zhao, Kejun Dong
<b>15:50 – 16:20</b>	<b>AFTERNOON TEA</b> <b>Room: Building EA.G Foyer</b>
	<b>Session 4D: Mineral Engineering and Materials Science</b> <b>Co-chairs: A/Prof Runyu Yang and Dr Yuqing Feng</b> <b>Room: EA.G.34</b>
16:20 – 16:35	Effect of defect and functionalization of CNT on the interphase characteristics of CNT-epoxy nanocomposites (Paper ID: iCMEMS_43) <i>Wen Xu, Yang Xiang and Qinghua Zeng</i>
16:35 – 16:50	“Chessboard” microstructure and their influence on mechanical properties in selective laser melted Ti-6Al-4V (Paper ID: iCMEMS_34) <i>Yue Zhao, Chris Davies, Xinhua Wu and Wenyi Yan</i>
16:50 – 17:05	The role of locust bean gum in the flotation separation of chalcopyrite and talc <i>Bo Feng</i>
17:05 – 17:20	Study on dust removal efficiency of high efficiency wet dust collector with double-W-type channel (Paper ID: iCMEMS_6) <i>Liang Qichao and Wang Haining</i>
17:20 – 17:35	Study on the preparation of apatite and titanium dioxide composite powder and its application as ceramic opacifier (Paper ID: iCMEMS_13) <i>Ao Weihua, Ding Hao, Chang Liang and Chen Wanting</i>
17:35 – 18:05	Group 1: Tour to Advanced Materials Characterisation Facility at Western Sydney University (30 minutes, Building EH.a.G.49, Parramatta South)
<b>19:00 – 21:30</b>	<b>CONFERENCE DINNER (Only for the CONFERENCE DINNER ticket holders)</b>

**Day 3 – Wednesday 22 November 2017**

<b>Time</b>	<b>Session</b>
<b>8:00 – 9:00</b>	<b>Registration</b> Parramatta South Campus Room: Building EA.G Foyer
<b>9:00 – 9:45</b>	<b>Plenary 11 – Professor Brian Uy, The University of Sydney, Australia</b> Title: Australasian Structural Engineering Research in Steel and Composite Structures and its influence on International Design Codes Chair: Professor Zhong Tao Room: EA.G.18(LT01)
<b>9:45 – 10:30</b>	<b>Plenary 12 - Professor Yinghe He, James Cook University, Australia</b> Title: Development of innovative processes for the material recovery from spent rechargeable batteries Chair: Dr Qinghua Zeng Room: EA.G.18(LT01)
<b>10:30 – 11:00</b>	<b>MORNING TEA</b> Room: Building EA.G Foyer
	<b>Session 5D: Mineral Engineering and Materials Science</b> Co-chairs: A/Prof Wenyi Yan and Prof Wuping Liao Room: EA.G.34
<b>11:00 – 11:20</b>	Invited paper title: Solvent extraction of thorium: from the recovery to high purity products (Paper ID: iCMEMS_7) <i>Wuping Liao</i>
<b>11:20 – 11:40</b>	Invited paper title: Study of gold leaching from refractory gold ore by new non-cyanide leaching agent (Paper ID: iCMEMS_11) <i>Wanfu Huang and Hao Wu</i>
<b>11:40 – 11:55</b>	Thermodynamic analysis of ammoniacal thiosulfate leaching of gold catalyzed by Co(III)/Co(II) using Eh-pH and speciation diagrams (Paper ID: iCMEMS_16) <i>Xiaoliang Liu, Bin Xu, Yongbin Yang, Qian Li, Tao Jiang and Yinghe He</i>
<b>11:55 – 12:10</b>	Ball milling and recycling of Australian waste-fly ash to reduce the particle size (Paper ID: iCMEMS_23) <i>Shahad Ibraheem and Sri Bandyopadhyay</i>
<b>12:10 – 12:25</b>	Minimum potential energy method for 3D stability analysis of non-homogeneous slope with irregular sliding surface (Paper ID: iCMEMS_45) <i>Shujie Wen, Qinghua Zeng and Chin Leo</i>
<b>12:25 – 12:40</b>	Particle alignment and volume fraction for ellipsoidal particles <i>Muzahid Hossain, Haiping Zhu and Aibing Yu</i>
<b>12:40 -13:40</b>	<b>LUNCH</b> Room: Building EA.G Foyer

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<b>13:40 – 14:15</b>	<b>Plenary 13 - Professor Peter Coombes, Managing Director Urban Water Cycle Solutions, Sydney, Australia</b> <b>Title: Systems analysis of big data and macroeconomic history to reveal insights for water policy and markets</b> <b>Chair: Associate Professor Ataur Rahman</b> <b>Room: EA.G.18(LT01)</b>
<b>14:15 -14:30</b>	<b>CONFERENCE CLOSING SESSION</b> <b>Best Paper Award</b> <b>Room: EA.G.18(LT01)</b>
<b>14:30 – 15:00</b>	<b>Group 2: Tour to Advanced Materials Characterisation Facility at Western Sydney University (30 minutes, Building EHa.G.49, Parramatta South)</b>