

GCMM 2018 PROGRAM DRAFT

The Keynote Lectures are scheduled for **30 minutes presentation time + 10 minutes of discussion.**

The presentation by all other speakers are scheduled for **8 minutes presentation time + 2 minutes of discussion.**

Day 1 (5/12/2018)
7 30 - 8 30
Registration
8 30 – 9 30
Conference Inauguration Program
9 40 – 10 20 KEYNOTE LECTURE 1 <i>Industry 4.0 transformation of the Australian advanced manufacturing sector through better integration with the knowledge economy</i> Prof. Aleksandar Subic Chair: Prof John Bell
10 25 – 10 45
Morning Tea
Session 1 10 50 – 12 25 Chair: Dr. Azharul Karim, Co-Chair: Ms. Phani Kumari Paritala
10 50 – 11 00 <i>Multi response optimization of process parameters using grey relational analysis for milling of hardened custom 465 steel</i> <u>Kanchana J, Prasath V, Krishnaraj V, Geetha Priyadharshini B</u>
11 00 – 11 10 <i>Fatigue life and fracture morphology of Inconel 718 machined by spark EDM process</i> <u>Anthony Xavier Michael</u> and P. Ashwath
11 10 - 11 20 <i>High tensile stainless steel as a sustainable material for aquaculture</i> <u>Paul Gümpel</u> and Mathias Sorg
11 20 - 11 30 <i>Process performance of low frequency vibratory grinding of Inconel 718</i> Elsiddig Ibrahim, Michael Ckeckley, Xun Chen, Martin Sharp, Wen Liang, Songmei Yuan and <u>Andre D.L. Batako</u>
11 30 – 11 40 <i>Development and investigation into properties of composite particleboard of Iroko and African locust bean pod</i> Komi Kadja, Soviwadan Drovou, Komlan Assogba Kassegne, Antony Pizzi, Komla Sanda and <u>Andre D.L. Batako</u>
11 40 – 11 50 <i>Residual stress distribution in self-piercing rivet joint of high strength steel</i> Rezwanul Haque, <u>Avodele Olofinjana</u> and Yvonne Durandet
11 50 – 12 00 <i>Influence of 3D Printing FDM Process Parameters on Tensile Property of ULTEM 9085</i> <u>Aboma Wagari Gebisa</u> and Hirpa Gelgele Lemu
12 00 – 12 10 <i>Sliding wear reliability studies of inconel 625 components manufactured by direct metal deposition (dmd)</i> <u>Anil Pm</u> and Naiju Cd

<p style="text-align: center;">12 10 – 12 20 <i>Internal positioning system for cardiotocograph transducers at MacKay base hospital</i> Kaisha Andrew and <u>Prasad Gudimetla</u></p>
<p style="text-align: center;">12 30 - 13 30</p> <p style="text-align: center;">Lunch and Poster session</p>
<p style="text-align: center;">13 35 - 14 15 KEYNOTE LECTURE 2 <i>Additive Manufacturing for the Aerospace Industry</i> Prof. Sarat Singamneni Chair: Dr. Jyoti Sharma</p>
<p style="text-align: center;">Session 2 14 20 – 15 20 Chair: Dr. Yanling Cai, Co-Chair: Ms. Alka Jaggesar</p>
<p style="text-align: center;">14 20 – 14 30 <i>Experimental investigations on magnetic field assisted abrasive finishing of ss316</i> <u>T C Kanish</u>, S Narayanan, P Kuppan and S Denis Ashok</p>
<p style="text-align: center;">14 30 - 14 40 <i>Establishment process of the secondary development platform of diversified role management - a study of the cloud building construction management system</i> <u>Yu-Tsung Ho</u>, <u>Shih-Tsung Yu</u>, <u>Chung-Chyi Chou</u>, <u>Yu-Ming Chang</u> and <u>I-Chen Chen</u></p>
<p style="text-align: center;">14 40 - 14 50</p> <p style="text-align: center;">TBA</p>
<p style="text-align: center;">14 50 – 15 00 <i>Characterization on aluminum alloy 7050 metal matrix composite reinforced with graphene nanoparticles</i> <u>Venkatesan S</u> and Anthony Xavier Michael</p>
<p style="text-align: center;">15 00 - 15 10 <i>Experimental investigation and optimization of cutting parameters on force, surface roughness and tool wear on turning of incoloy 800h using al2o3 nano fluid in coconut oil</i> Venkatesan K, Devendiran S, Nouby M Ghazaly, Rahul R and <u>Mughilan T</u></p>
<p style="text-align: center;">15 10 - 15 20 <i>Influence of critical plasma spray parameter on microstructural and tribological characteristics of nanostructured tungsten carbide-cobalt coatings</i> <u>Bolleddu Venkateshwarlu</u>, Mohammed Thalib Basha.G and Akella Srikanth</p>
<p style="text-align: center;">15 25 – 15 45</p> <p style="text-align: center;">Coffee</p>
<p style="text-align: center;">Session 3 15 50 – 16 50 Chair: Dr. Sabrina Fawzia, Co-chair: Mr. Jingyu Liu</p>
<p style="text-align: center;">15 50 – 16 00 <i>The supply chain coordination of risk preferred retailer under information asymmetry</i> <u>Jin Fa Li</u>, Nan Chen and Boyu Su</p>
<p style="text-align: center;">16 00 – 16 10 <i>Reversible defect motion in brittle layered sodium titanate nanowires</i> <u>Arixin Bo</u>, Kai Chen, Edmund Pickering, Haifei Zhan, John Bell, Yongqiang Zhang, Xiaoguang Wang, Huaiyong Zhu, Zhiwei Shan and Yuantong Gu</p>
<p style="text-align: center;">16 10 – 16 20 <i>Construction of social responsibility engineering system of manufacturing enterprise</i> <u>Yongming Zhu</u></p>
<p style="text-align: center;">16 20 – 16 30 <i>Effects of surface topography and chemistry modifications of stainless steel through ion implantation on icephobicity</i> Thomas Loho, Jerome Leveneur and <u>John Kennedy</u></p>

<p style="text-align: center;">16 30 – 16 40 <i>Optimality of inventory decisions in a joint three-echelon inventory model under stock dependent demand</i> Aadhavan Alakan, <u>D Nishanth Srinivas</u>, Dega Nagaraju, S Narayanan and S Devendiran</p>
<p style="text-align: center;">16 40 – 16 50 TBA</p>
<p style="text-align: center;">16 50- 17 00 TBA</p>
<p>GCMM BOARD MEMBERS MEETING</p>
<p style="text-align: center;">18 00 – 19 00</p>

<p style="text-align: center;">Day 2 (6/12/2018)</p>
<p style="text-align: center;">8 30 – 9 00</p>
<p style="text-align: center;">Registration</p>
<p style="text-align: center;">9 00 - 9 40 KEYNOTE LECTURE 3 <i>Metal Additive Manufacturing: the return of process planning</i> Prof. Ian Gibson Chair: Prof Azharul Karim</p>
<p style="text-align: center;">Session 1 9 45 – 10 35 Chair: Prof. Anthony Xavier Michael, Co-chair: Mr. Amar Velic</p>
<p style="text-align: center;">9 45 - 9 55 <i>An experimental investigation on thinning and formability in hybrid incremental sheet forming process</i> Rahul Jagtap and <u>Shailendra Kumar</u></p>
<p style="text-align: center;">9 55 - 10 05 <i>Development of relationship between triaging of patients and emergency department performance</i> <u>Kazi Badrul Ahsan</u>, M.A. Karim, Gerard Fitzgerald, Doug Morel and John Burke</p>
<p style="text-align: center;">10 05 - 10 15 <i>Modeling, analysis and effective improvement of aluminum bowl embossing process through robot simulation tools</i> <u>Khongsak Srasrisom</u>, Pramot Srinoi, Seksan Chaijit and Fasai Wiwatwongwana</p>
<p style="text-align: center;">10 15 - 10 25 <i>Image-based visual fuzzy-copying control strategy of an eye-in-hand Robot for dynamic characteristic locus acquiring</i> <u>Jieyin Lyu</u>, Shouqin Zhou, Guangzhong Cao and Prasad K.D.V Yarlagadda</p>
<p style="text-align: center;">10 25 - 10 35 <i>A comparison of traditional manufacturing vs additive manufacturing, the best method for the job</i> <u>Tanisha Mary Pereira</u>, John V Kennedy and Johan Potgieter</p>
<p style="text-align: center;">10 35 - 10 55</p>
<p style="text-align: center;">Morning Tea</p>
<p style="text-align: center;">Session 2 11 00 – 12 20 Chair: Dr. Jyoti Sharma, Co-chair: Ms. Lijuan Fan</p>

<p style="text-align: center;">11 00 – 11 10 <i>Real-time scheduler for middleware of industrial robot</i> Dong-Hyeon Park and <u>Hong Seong Park</u></p>
<p style="text-align: center;">11 10 - 11 20 <i>Cad and 3d printing could help on in-silico atherosclerosis study</i> <u>Jiaqiu Wang</u>, Phani Kumari Paritala, Yuantong Gu and Zhiyong Li</p>
<p style="text-align: center;">11 20 - 11 30 TBA</p>
<p style="text-align: center;">11 30 - 11 40 <i>Studies of the solidification characteristics in Sn-Ag-Cu-Bi solder alloys</i> <u>Ayodele Olofinjana</u>, Rezwanul Haque, Nyuk Yoong Voo and Mashdalina Mathir</p>
<p style="text-align: center;">11 40 - 11 50 <i>Advanced animal track-&-trace supply-chain conceptual framework: an internet of things approach</i> <u>Richard Addo-Tenkorang</u>, Norman Gwangwava, Enoch Ogunmuyiwa and Albert Ude</p>
<p style="text-align: center;">11 50 - 12 00 <i>Birnbaum importance analysis of supply chain fault risks based on binary decision diagram</i> Shumin Li and <u>Chaogai Xue</u></p>
<p style="text-align: center;">12 00 - 12 10 <i>Cloud based disassembly of electric vehicle battery</i> Maharshi Singh and <u>K Janardhan Reddy</u></p>
<p style="text-align: center;">12 10 - 12 20 <i>On consonance between a mathematical method for the CET prediction and constrained / unconstrained solidification</i> <u>Waldemar Wolczyński</u>, Anna A. Ivanova and Piotr Kwapisiński</p>
<p style="text-align: center;">12 25 - 13 30 Lunch/ Poster</p>
<p style="text-align: center;">13 30 – 14 10 KEYNOTE LECTURE 4 <i>Additive manufacturing technology platform for melt electro writing – a systems engineering approach</i> Prof. Dietmar Hutmacher Chair: Prof. Anthony Xavier Michael</p>
<p style="text-align: center;">Session 3 14 15 - 15 05 Chair: Dr. Kanchana Janganathan, Co-chair: Mr. Jiaqiu Wang</p>
<p style="text-align: center;">14 15 - 14 25 <i>Evaluating the machinability of Inconel 718 under different machining conditions</i> <u>Jeyapandiarajan P</u> and Anthony Xavior Michael</p>
<p style="text-align: center;">14 25 - 14 35 <i>On the temperature-dependent non-isosensitive mechanical behaviour of polyethylene in a hydrogen pressure vessel</i> <u>Martin Mahl</u>, Christopher Jelich and Horst Baier</p>
<p style="text-align: center;">14 35 - 14 45 <i>A review on supply chain performance measurement systems (1998-2018)</i> Jagan Mohan Reddy K, Neelakanteswara Rao A and <u>Krishnanand L</u></p>
<p style="text-align: center;">14 45 - 14 55 <i>An overview of next-generation manufacturing execution systems: how important is MES for industry 4.0?</i> <u>Soujanya Mantravadi</u> and Charles Møller</p>
<p style="text-align: center;">14 55 - 15 05 <i>Intelligent materials in modern production - current trends for thermal shape memory alloys</i> <u>Joachim Strittmatter</u>, Paul Gümpel and Marc Hiefer</p>

15 05 - 15 25
Coffee/Poster
Session 4 15 30 – 17 00 Chair: Dr. Jafar Hasan, Co-chair: Dr. Janani Ganapathi
15 30 - 15 40 <i>Facilitating industry translation of custom 3d printed bone prostheses and scaffolds through quality by design</i> <u>Daniel Marquez-Marquez</u>, Ali Mirnajafizadeh, Christopher P Carty and Rodney A Stewart
15 40 – 15 50 <i>A study on intelligent algorithm to control welding parameters for lab joint</i> <u>Tae-Jong Yun</u>, Won-Bin Oh, Bo-Ram Lee, Chang-Gon Kim, Zong-Liang Lianga and Ill-Soo Kim
15 50 – 16 00 <i>Intention to apply mobile device in emergency medical service sites for fire fighters</i> <u>Yi-Ching Chen</u> and Shin-Kai Lin
16 00 - 16 10 <i>Optimal allocation method of discrete manufacturing resources for demand coordination between suppliers and customers in a fuzzy environment</i> <u>Wei Xu</u>
16 10 – 16 20 <i>Sustainable operations management in logistics using simulations and modelling: a framework for decision making in delivery management</i> Saeed Rahimpour Golroudbarya, Seyed Mojib Zahraeeb, <u>Usama Awan</u> and Andrzej Kraslawski
16 20 – 16 30 <i>Effect of alloying elements on the mechanical behavior of microwave synthesized composites</i> <u>Joel J</u> and Anthony Xavier Michael
16 30 – 16 40 <i>Fuzzy logic performance evaluation and linear programming model for managing manufacturing cluster bus body</i> <u>Suthep Butdee</u>
16 40 – 16 50 <i>Charcoal Briquettes from Madan Wood Waste as an Alternative Energy in Thailand</i> <u>Nattapong Kongprasert</u>, Pilada Wangphanich and Anuwat Jutilarptavorn
16 50 – 17 00 TBA
18 30 - 21 00 Kookaburra Cruise Dinner See Map for directions

<p>Day 3 (7/12/2018)</p>
<p>8 30 – 8 55</p>
<p>Registration 8 55 - 9 35 KEYNOTE LECTURE 5 <i>Role of nanoscale surface treatment of the skeleton implant-scaffolds fabricated by selective laser sintering in dentistry</i> Prof. Leszek Adam Dobrzański Chair: Dr. John Kennedy</p>
<p>Session 1 9 35 – 10 25 Chair: Prof. Azharul Karim, Co-chair: Ms. Alka Jaggessar</p>
<p>9 35 - 9 45 <i>An analysis of heat distribution in the production of sic process</i> Govind Gupta, Prince Raj and Kartikeya Tiwari</p>
<p>9 45 - 9 55 <i>Conventional and additive manufacturing with metal matrix composites: a perspective</i> Malaya Prasad Behera, Troy Dougherty and Sarat Singamneni</p>
<p>9 55 - 10 05 <i>The role of filleting on the stressed state of a square grid auxetic structure</i> Kusum Meena and Sarat Singamneni</p>
<p>10 05 - 10 15 <i>A review of dynamic job shop scheduling techniques</i> Jatoth Mohan, Krishnanand Lanka and A. Neelakanteswara Rao</p>
<p>10 15 - 10 25 <i>Machinability study and multi-response optimization of cutting force, surface roughness and tool wear on CNC turned inconel 617 superalloy using Al2O3 nanofluids in coconut oil</i> Venkatesan Kannan, Arun Tom Mathew, Devendiran S, Nouby M Ghazaly, S Sanjith, Mughilan Tamilarasu and R Raghul</p>
<p>10 25 - 10 45</p>
<p>Coffee</p>
<p>10 45 – 11 25 KEYNOTE LECTURE 6 <i>Advanced Manufacturing from Discovery to Commercialization</i> Prof. Peter Hodgson Chair: Prof Prasad K.D.V. Yarlagadda</p>
<p>Session 2 11 25 – 12 25 Chair: Dr. David Holmes, Co-chair: Ms. Phani Kumari Paritala</p>
<p>11 25 - 11 35 <i>Virtual reality barrel shaft design and assembly planning accompany with cam</i> Channarong Trakunsaranakom and Suthep Butdee</p>
<p>11 35 - 11 45 <i>Comparing WiFi RSS filtering for wireless robot location system</i> Thewan Thongkot, Seksan Chaijit, Pramot Srinoi, Abdul Halim Ismail and Kazuhiko Terashima</p>
<p>11 45 - 11 55 <i>Charcoal briquettes from madan wood waste as an alternative energy in Thailand</i> Nattapong Kongprasert, Pilada Wangphanich and Anuwat Jutilarptavorn</p>

<p style="text-align: center;">11 55 - 12:05 <i>Automatic seam ripping system</i> <u>Deepak Panghal</u>, Prabir Jana and Abhilasha Singh</p>
<p style="text-align: center;">12 05 - 12 15 <i>Fabrication of bioinspired composites with enhanced fracture toughness</i> <u>Jingyu Liu</u>, Prasad K.D.V. Yarlagadda and Cheng Yan</p>
<p style="text-align: center;">12 15 - 12 25 <i>Simulation on high speed train with driving algorithm and rules for operation image control</i> <u>Suthep Butdee</u></p>
<p style="text-align: center;">12 25 - 13 30 Lunch/ Poster</p>
<p style="text-align: center;">Session 3 13 35 - 15 05 Chair: Dr. Asha Matthew, Co-chair: Mr. Amar Velic</p>
<p style="text-align: center;">13 35 - 13 45 <i>Studies on mechanical properties of graphite reinforced Ti (cx, n1-x) using nanoindentation techniques</i> <u>Ojo Jeremiah Akinribide</u>, Gadifele Mekgwe, Olawale Ajibola, Babatunde Obadele, Samuel Akinwamide and Peter Olubambi</p>
<p style="text-align: center;">13 45 - 13 55 <i>Crystallite size determination of thermally deposited gold nanoparticles</i> Olasupo Daniel Ogundare, <u>Ojo Jeremiah Akinribide</u>, Adelana Adetunji, Mosobalaje Adeoye and Peter Olubambi</p>
<p style="text-align: center;">13 55 - 14 05 <i>Synthesis and characterization of SnO₂ nanofiller from recycled expanded polystyrene</i> <u>Olusola Olaitan Ayeleru</u>, Sisanda Dlova, Freeman Ntuli, Williams Kehinde Kupolati and Peter Apata Olubambi</p>
<p style="text-align: center;">14 05 - 14 15 <i>Development and size distribution of polystyrene/zno nanofillers</i> <u>Olusola Olaitan Ayeleru</u>, Sisanda Dlova, Freeman Ntuli, Williams Kehinde Kupolati and Peter Apata Olubambi</p>
<p style="text-align: center;">14 15 - 14 25 <i>Study of Forces, Surface Finish and Chip Morphology on Machining of Inconel 825</i> Venkatesan Kannan, Manivannan K, Devendiran S, Nouby M Ghazaly, Aadhavan Karuppanan, Mughilan Tamilarasu, <u>Nishanth Srinivas</u> and Mathews Neha Benny</p>
<p style="text-align: center;">14 25 - 14 35 <i>Life cycle assessment of carbon footprint in buses - a case study of bus route no.2 in tainan city</i> Ching-Chih Chang, Yi-Ting Liao and <u>Yu-Wei Chang</u></p>
<p style="text-align: center;">14 35 - 14 45 <i>Carbon allowance allocation in the shipping industry under different economic activities</i> Ching-Chih Chang, Po-Chien Huang and <u>Chu-Chin Hsieh</u></p>
<p style="text-align: center;">14 45 - 14 55 <i>The analysis of reduction strategies on port emissions inventory -a case of Kaohsiung port</i> Ching-Chih Chang and <u>Yi-An Tsai</u></p>
<p style="text-align: center;">14 55 - 15 05 <i>Enhancement of seismic performance of steel frame through CFRP strengthening</i> <u>Tafsirojjaman Tafsirojjaman</u>, Sabrina Fawzia and David Thambiratnam</p>
<p style="text-align: center;">15 05 - 15 25 Coffee/Poster</p>

<p>Session 4 15 30 – 17 05 Chair: Prof Prasad K.D.V. Yarlagadda Co-chair: Jingyu Liu</p>
<p>15 30 - 15 40 <i>Impact of passenger arrival patterns in airports outbound mandatory processes</i> <u>Sultan Alodhaibi</u>, Robert L Burdett and Prasad K.D.V. Yarlagadda</p>
<p>15 40 – 15 50 <i>Vertical segregation: issues and challenges of women engineers</i> <u>Jyoti Sharma</u>, Tejasri Yarlagadda, Sarthak Sharma and Prasad K.D.V. Yarlagadda</p>
<p>15 50 - 16 00 <i>Application of nanoengineering: development of bio-implants</i> <u>Tejasri Yarlagadda</u>, Sarthak Sharma, Prasad K.D.V. Yarlagadda and Jyoti Sharma</p>
<p>16 00 - 16 10 <i>Manufacturing and profile accuracy testing of a portable parabolic trough concentrating collector test rig suitable for low income group</i> <u>Majedul Islam</u>, Mohiuddin Sadi, Amir Hamza Limon, Omar Faruque Md. and Prasad K.D.V. Yarlagadda</p>
<p>16 10 - 16 20 <i>Prediction of the atherosclerotic plaque life – perceptions from fatigue analysis</i> <u>Phani Kumari Paritala</u>, Tejasri Yarlagadda, Jiaqiu Wang, Yuan Tong Gu and Zhiyong Li</p>
<p>16 20 - 16 30 <i>Evaluation of particle beam lithography for fabrication metallic bioinspired nano-structure</i> <u>Hesam Shahali</u>, Jafar Hasan, Hongxia Wang, Tuquabo Tesfamichael, Cheng Yan and Prasad K.D.V. Yarlagadda</p>
<p>16 30 - 16 40 <i>Investigation of mechanical properties and morphology of hydrothermally manufactured titanium dioxide nanostructured surfaces</i> <u>Alka Jaggessar</u>, Prasad K.D.V. Yarlagadda, Tuquabo Tesfamicheal, Cheng Yan and Hongxia Wang</p>
<p>16 40 - 16 50 TBA</p>
<p>16 50 – 17 05 Thank You Note</p>

Map and Directions

Kookaburra Cruise Dinner: 1 Eagle St, Brisbane

The map and directions to the dinner venue from the conference venue is uploaded on the website.

From Royal On The Park Brisbane – Take the 7 min walk (from the map). Walk north-east on Alice St towards Edward St (170 m). Alice St turns slightly left and becomes Edward St (100 m). Turn right onto Margaret St 65 m. Margaret St turns slightly left and becomes Felix St (120 m). Turn right onto Mary St (69 m). Continue onto Eagle St. Destination will be on the right. May require the stairs/ramp to reach.

Or Take the 9 min walk along the river (from the map).

