UM Global Academic Symposium 2024
Summary of Profile of invited speakers

1. Kim Rasmussen
    Full Professor at University of Sydney, Australia
    Kim Rasmussen is the Challis Professor of Civil Engineering at the University of Sydney. He earned his MSc in Engineering from the Technical University of Denmark and his PhD and DEng from the University of Sydney. Joining the School of Civil Engineering in 1989, he served as Head of School from 2005 to 2016, and held various leadership roles including Deputy Dean and Associate Dean Research until 2022.

    He has been actively involved in the Centre for Advanced Structural Engineering and numerous Standards Australia committees. His research focuses on structural mechanics, particularly in steel, cold-formed steel, stainless steel, and aluminium structures. He has led ARC-funded projects for over 20 years and received prestigious awards like the Shortridge Hardesty Award and the Lynn Beedle Award for his contributions to structural stability. More details on his work can be found here.

2. Gao Cong
    Full Professor at Nanyang Technological University, Singapore
    Academic Qualifications:
    *   PhD in Computer Science (2000-2004) - National University of Singapore
    *   Master of Engineering in Information Systems (1996-1999) - Tianjin University, China
    *   Bachelor of Engineering in Information Systems (1992-1996) - Tianjin University, China
    Working Experience:
    *   Professor (2018-Present) - School of Computer Science and Engineering, Nanyang Technological University, Singapore (also affiliated with the School of Physical and Mathematical Sciences)
    *   Associate Professor (2015-2018) - School of Computer Engineering, Nanyang Technological University, Singapore
    *   Assistant Professor (2010-2015) - School of Computer Engineering, Nanyang Technological University, Singapore
    *   Assistant Professor (2008-2010) - Department of Computer Science, Aalborg University, Denmark
    *   Researcher (2006-2008) - Microsoft Research Asia
    *   Postdoc Research Fellow (2004-2006) - Database group, School of Informatics, University of Edinburgh, UK

- Pre-doctor Researcher (2004) - School of Computing, National University of Singapore
- Engineer (1999) - Shenzhen Huawei Company, China

Key Areas of Research

Data Management, Spatial Data Mining and Smart City, Recommendation Systems

Specifically, his current research interests include:

- Spatial +X Data Systems
- Machine Learning for Data Management
- Spatial-temporal Data Mining and Smart City
- Recommendation Systems

3. Jing Qiu
Senior Lecturer at University of Sydney, Australia
Dr. Qiu is a Senior Lecturer in Electrical Engineering at the University of Sydney, having joined in November 2017. He holds a Bachelor of Engineering from Shandong University, an M.Sc. in Environmental Policy and Management from The University of Manchester, and a Ph.D. in Electrical Engineering from The University of Newcastle. His career includes roles as a Research Associate at the Centre for Intelligent Electricity Networks and an Energy Economics Scientist at CSIRO, where he led projects on low-carbon energy transition.

Dr. Qiu specializes in energy planning and electricity markets, focusing on sustainable energy policies to support Australia's low-carbon transition. His research aims to improve the reliability and economic efficiency of electricity supply networks, addressing environmental impacts and climate change. He has secured over $2.6 million in funding for various projects and has been recognized for his contributions to energy policy and planning, including acknowledgments from the Australian Prime Minister.

4. Yan Xu
Associate Professor at Nanyang Technological University, Singapore
Dr. Xu is a prominent figure in electrical engineering, currently holding the Cham Tao Soon Professorship in Engineering at Nanyang Technological University (NTU) since 2024. He received his B.E. and M.E. degrees from South China University of Technology and his Ph.D. from The University of Newcastle, Australia. His career includes postdoctoral research at the University of Sydney and a tenure-track position at NTU, where he was promoted to Associate Professor in 2021.

Dr. Xu leads the SODA (Stability, Optimization, and Data-Analytics) power system research group, focusing on:
1. Stability and control of renewable-energy power systems
2. Microgrids and distributed energy resource (DER) integration

3. Data-analytics for smart grid applications

He has published extensively, including 3 books and numerous highly cited papers, and has received multiple prestigious awards. His research is funded by various national and international organizations, and many of his findings have been applied in the industry. Dr. Xu also serves in several editorial roles and has been actively involved in professional societies, including serving as Chairman of the IEEE Power & Energy Society Singapore Chapter.

5. Tek Tjing Lie
    Full Professor at Auckland University of Technology, New Zealand
    Professor Tek Tjing Lie is the Interim Head of School at the Auckland University of Technology (AUT) School of Engineering, Computer and Mathematical Sciences. He received his BS degree from the Oklahoma State University, MS and PhD degrees from Michigan State University. He has previously held academic positions in the School of Electrical and Electronic Engineering at the Nanyang Technological University. His research interests are in the fields of Power System Operation and Control, Deregulated Electrical Power Markets, AI Application to Power Systems, Renewable Energy and Smart Grids.

6. Weizhu Bao
    Chair Professor at National University of Singapore, Singapore
    Academic Qualifications and Working experience:
    - Bsc, 1992, Tsinghua University
    - Msc & PhD, 1995, Tsinghua University
    - Postdoc., 01/1996 — 03/1997, Department of Mathematics, Imperial College
    - Associate Professor (1998 — 2000) and Lecturer (1995 — 1998), Tsinghua University
    - Visiting Assistant Professor (1998 — 2000), Georgia Institute of Technology
    - Van Vleck Visiting Assistant Professor (09/2000 — 12/2000), University of Wisconsin-Madison
    - Provost's Chair Professor (2013–2016, 2023–), Professor (2009–), Associate Professor (2005–2009) and Assistant Professor (2001–2004), National University of Singapore

7. Behzad Fatahi
    Professor at University of Technology Sydney, Australia
    Professor Behzad Fatahi is a distinguished civil engineer known for his work in enhancing infrastructure safety under complex conditions. He has held various leadership roles at the University of Technology Sydney (UTS), including Head of Discipline and Deputy Head of School - Teaching and Learning. Recognized for his exceptional teaching, he has received multiple awards, including the UTS Vice-Chancellor's Learning and Teaching Citation.

Professor Fatahi's research focuses on unsaturated soil mechanics, dynamic soil-structure interaction, and ground improvement techniques. He has published over 240 peer-reviewed papers and has been involved in significant infrastructure projects in Australia and overseas. His contributions to the field have earned him numerous accolades, including the Australasia Young Railway Engineer of the Year award.

In addition to his academic achievements, Professor Fatahi has served as an external assessor for various research grant bodies and has supervised 21 PhD students to completion. He is also a Chartered Professional Engineer and Fellow member of Engineers Australia.

8. Kok-Leong Ong
   Professor at RMIT, Australia
   Kok-Leong Ong is currently a Professor of Business Analytics in the College of Business & Law, RMIT University.

   His research focuses on analytics and machine learning translation into practice within different business verticals, and the development of new techniques as required to meet individual business needs. As a result, Kok-Leong's research has had a strong focus on impact, where many of his works were ranked by Altmetric to be in the top 25% and 5% of research in their respective domains. He has received over $1.4m in research grants and serves in various conferences related to analytics, including the prestigious KDD and PAKDD.

   Kok-Leong is also well-known for his strategic leadership in programs. He was one of the members that started Australia's first degree in Business Analytics and led the development of La Trobe Business School's foray into Business Analytics from 2015 to 2019. From 2020, he contributed to the Business School's digital transformation program before joining RMIT in September 2021. He has won several teaching and service awards, including two VC's Teaching Award. In 2021, he was one of the four Australia-based academics to be named the Leading Data Academics by CDO Magazine.

9. Jie Lu
   Distinguished Professor at University of Technology Sydney, Australia. Officer of the Order of Australia, FIEEE
   Distinguished Professor Jie Lu AO is a leading expert in computational intelligence, known for her significant contributions to fuzzy transfer learning, concept drift, data-driven decision support systems, and recommender systems. Her work has had a profound impact on both the research community and broader society.

   Professor Lu is an IEEE Fellow, IFSA Fellow, Australian Computer Society Fellow, and Australian Laureate Fellow in AI. She has published six research books and around 500

papers, secured numerous ARC projects, and supervised 50 PhD students. As the Director of the Australian Artificial Intelligence Institute (AAII) at UTS, she leads the largest AI center in Australia, driving advancements in data-driven decision-making.

Her research has practical applications across various sectors, including transportation, telecommunications, healthcare, and education. She has received numerous awards, including the UTS Vice-Chancellor's Research Medal and the Australian NSW Premier Prize for Excellence in Engineering or ICT. Professor Lu also serves as the Editor-In-Chief for the journal Knowledge-Based Systems and frequently delivers keynote speeches at international conferences.

10. Ho Seok Ahn

Senior Research Fellow at University of Auckland, New Zealand

Dr. Ho Seok Ahn is a Senior Lecturer at the University of Auckland's Department of Electrical, Computer, and Software Engineering since 2015. He earned his B.S. in Information and Communication Engineering from Sungkyunkwan University and his Ph.D. in Electrical Engineering and Computer Science from Seoul National University. His career includes roles as a researcher at Samsung Electronics, a visiting researcher at AIST in Japan, a senior researcher at KITECH, and a research scientist at ATR in Japan.

Dr. Ahn's research focuses on social robots, Human-Robot Interaction, affective computing, and intelligent interactive systems. He has published over 100 research papers, authored 2 books, and holds 18 patents. His work has earned him numerous accolades, including 19 Best Paper Awards and 29 awards from robotics competitions.

His contributions to the field are significant, particularly in developing intelligent service robots and modular robot systems. Dr. Ahn's extensive experience and research have made him a prominent figure in the robotics and intelligent systems community.

11. Aiguo Patrick Hu

Full Professor at University of Auckland, New Zealand

Dr. Aiguo Patrick Hu is a distinguished expert in wireless power transfer and micro-computer control technologies. He migrated to New Zealand from Xian, China, in 1996. Before his move, he held various roles, including lecturer, director of the electrical section at the China-Italy Cooperative Technical Training Center, and general manager of a technical development company.

Dr. Hu holds over 50 patents and has published more than 300 refereed journal and conference papers. He authored the first monograph on wireless/contactless power transfer and contributed to four book chapters on electrical machines and wireless power transfer systems.

He has served in several leadership positions, including Deputy Head of Department (Research), Chair of the IEEE New Zealand North Section, and Chair of the IEEE North

Joint Industrial Electronics and Industry Applications Chapter. He was also the founding President of the Xian Jiaotong University New Zealand Alumni Association and currently holds roles such as Treasurer of the NUS Auckland Alumni Chapter and Chairman of the New Zealand Chinese Scientists Association.

Dr. Hu was the Head of Research/CTO of PowerbyProxi, a company acquired by Apple Inc. in 2017, and is an executive editor of the Journal of Wireless Power Transfer. His extensive contributions to the field have significantly advanced the technology and its applications.

12. Minh Kieu
    Senior Lecturer at University of Auckland, New Zealand
    Dr. Minh Kieu specializes in leveraging AI, machine learning, and data analytics to address complex urban transport challenges, including reducing emissions and enhancing transport resilience. He has played a significant role in the development and delivery of major research projects, such as ERC Horizon 2020 in the UK and the Premier Innovation Initiative in Australia.

13. Prakash Ranjitkar
    Senior Lecturer at University of Auckland, New Zealand
    Dr Prakash Ranjitkar is a Senior Lecturer in the Department of Civil and Environmental Engineering at the University of Auckland. He has more than 20 years of experience in a range of transport and other infrastructure projects as an academician, researcher and consultant. Prakash's research interests are in modelling and simulation of transport facilities, intelligent transportation systems, resilience of road networks, traffic operations, traffic safety, public transport, active transport and applications of emerging technologies in transportation.

14. Jiling Cao
    Full Professor and head of Mathematic Science Department at Auckland University of Technology, New Zealand
    Professor Jiling Cao (Chinese: 曹继岭) is a distinguished mathematician who began his journey in a small village near Nanyang, China, inspired by the national hero Jingrun Chen. He pursued his undergraduate studies in China and completed his doctorate at the University of Auckland, where he received the inaugural Vice-Chancellor's Prize for the Best Doctoral Thesis in the Faculty of Science in 1998-1999.

    Professor Cao held research fellowships at Ehime University and the University of Auckland before joining AUT in 2006. He played a pivotal role in developing the Mathematical Sciences program, which now includes majors in Analytics and Mathematical Modelling and Computation. Since January 2015, he has been the Head of the Mathematical Sciences Department.

His research spans mathematical analysis, topology, game theory, and mathematical modelling in economics and finance. He has been an investigator on several significant research projects and has published extensively. Professor Cao has also held visiting professorships and delivered invited addresses worldwide, emphasizing the importance of mathematics in technological advancements and problem-solving skills.

15. Chu Jian
Professor and Chair, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore

Professor Jian Chu is President's Chair in Civil Engineering, Chair of the School of Civil and Environmental Engineering, founding Director of the Centre for Urban Solutions at Nanyang Technological University (NTU), Singapore. He is a Fellow of the Academy of Engineering Singapore.

Prof Chu worked for Iowa State University, USA, from 2011 to 2014 as professor and James M. Hoover Chair in Geotechnical Engineering. Currently, he is the Chair for Technical Committee TC217 on Land Reclamation under ISSMGE, a member of TC211 on Soil Improvement and a past president of the Geotechnical Society of Singapore. He is an Editor for a high impact journal Acta Geotechnica, Editor-in-Chief for a new journal Biogeotecnics, and Associate Editor for ASCE Journal of Materials in Civil Engineering.