

KEYNOTE SPEAKER

PROF. RAO KOTAGIRI

University of Melbourne, Australia

DOMAIN OF RESEARCH

Machine Learning and Data mining, Big Data, Distributed Systems and Cloud Computing, Robust Agent Systems, Intrusion Detection, Bioinformatics and Medical Imaging, Logic Programming and Deductive Databases, Information Retrieval

BIOGRAPHY

Professor Ramamohanarao (Rao) Kotagiri received PhD from Monash University in 19080. He was awarded the Alexander von Humboldt Fellowship in 1983. He has been at the University Melbourne since 1980 and was appointed as a professor in computer science in 1989. Rao held several senior positions including Head of Computer Science and Software Engineering, Head of the School of Electrical Engineering and Computer Science at the University of Melbourne and Research Director for the Cooperative Research Centre for Intelligent Decision Systems. He served on the Editorial Boards of the Computer Journal Universal Computer Science, IEETKDE and VLDB (Very Large Data Bases) Journal. He was the program Co-Chair for VLDB, PAKDD, DASFAA and DOOD conferences. He is a steering committee member of IEEE ICDM, PAKDD and DASFAA. He received Distinguished Contribution Award by PAKDD for Data Mining; Distinguished Contribution Award in 2009 by the Computing Research and Education Association of Australasia; Distinguished Contribution Award by DASFAA for Database Research; Distinguished Service Award by IEEE ICDM for Data Mining. Rao is a Fellow of the Institute of Engineers Australia, a Fellow of Australian Academy Technological Sciences and Engineering and a Fellow of Australian Academy of Science.

KEYNOTE TITLE: SMARTS: SCALABLE MICROSCOPIC ADAPTIVE ROAD TRAFFIC SIMULATOR

Microscopic traffic simulators are important tools for studying transportation systems as they describe the evolution of traffic to the finest level of detail. My talk will highlight major challenges faced in microscopic simulations due to the complexity of the traffic models. I will describe SMARTS: Scalable Microscopic Adaptive Road Traffic Simulator, we are currently developing. It is a distributed microscopic traffic simulator that can achieve significant boost of simulation speed by utilizing network-connected computing nodes in parallel. For example, the time for simulating one million vehicles in an area the size of Melbourne is 1:67 times faster than the real time when the traffic is updated once per second with 30 computing nodes. SMARTS supports a number of driver models and traffic rules, such as car-following model and lane-changing model, which can be driver dependent. The simulator is equipped with a wide range of features that help to customize, calibrate and monitor simulations.

KEYNOTE SPEAKER

PROF. KOHEI ARAI

Saga University, Japan

DOMAIN OF RESEARCH

Technology Trends, Computer
Vision, Decision Making,
Information Retrieval, Networking,
Simulation

BIOGRAPHY

Dr Kohei Arai, a Scientist, Professor and Author. He is currently Professor at Saga University, Japan and Adjunct Prof. of the University of Arizona, USA since 1998. Dr Arai received PhD degree in Information Science from Nihon University in June 1982 and MS degree in Electronics Engineering from Nihon University in March 1974. His current research concerns are Satellite Remote Sensing, Radiative Transfer Equation, Human-Computer Interaction, Image Recognition and Understanding, Non-Linear Optimization Theory and Wavelet Analysis. Dr Arai holds 42 patents and received numerous awards, including the Patent Award of the Year. Dr Arai has been featured in Japan Times and Italian Newspapers for his work on Eyes only Computer System. He has worked on several global research collaboration projects during his career. He wrote 31 books and published 490 journal papers and 390 of conference papers.

KEYNOTE TITLE: WEARABLE COMPUTING WITH EYE BASED HCI AND HEALTH MONITORING SENSORS

Wearable computing with eye based Human-Computer interaction and physical and psychological health monitoring is proposed. One of the weak points of the conventional wearable computing is computer input device. Computer input just by sight would be a breakthrough. The proposed wearable computing also allows physical and psychological monitoring. Therefore, it would be helpful for guide and navigation as well as health monitoring for the peoples in particular for disable persons, elderly persons.

KEYNOTE SPEAKER

PROF. STÉPHANE BRESSAN

National University of
Singapore, Singapore

DOMAIN OF RESEARCH

Integration and the
management of disparate
information, i.e. the
integration and management
of multi-modal and
multimedia information from
distributed, heterogeneous,
and autonomous sources

BIOGRAPHY

Stéphane Bressan is Associate Professor in the Department of Computer Science of the School of Computing (SoC) at the National University of Singapore (NUS). Stéphane is Track leader for Maritime Information Technologies at NUS Centre for Maritime Studies (CMS). He is Affiliate Professor at NUS Business Analytics Centre. He is researcher at Image & Pervasive Access Lab (IPAL) (Singapore-France CNRS UMI 29255). Stéphane's research interest is the integration, management and analysis of data from heterogeneous, disparate and distributed sources.

He is the author of more than 100 articles in international peer reviewed conferences and journals. He is member of the steering committee of the Database Systems for Advanced Applications conference series (DASFAA) and founding and steering committee member of the International Organization for Information Integration and Web-based Applications & Services (@WAS). He serves on the committees of numerous international peer reviewed conferences and journals.

Stéphane graduated in 1987 with a degree in Computer Science, Electronics and Process Automation from the Ecole Universitaire D'Ingénieurs de Lille (France) (now Polytech Lille) and received his Master and his Ph.D. in Computer Science in 1988 and 1992, respectively, from the Laboratoire D'informatique Fondamentale of the University of Lille (France). In 1990, Stéphane joined the European Computer-industry Research Centre (ECRC) of Bull, ICL, and Siemens in Munich (Germany). In 1994, he was appointed site Leader of the Database Platform project and Principal Investigator and Work-package Manager for the European IDEA ESPRIT project on Intelligent Databases. From 1996 to 1998, he was Research Associate at the Sloan School of Management of the Massachusetts Institute of Technology (MIT) (United States of America)

KEYNOTE TITLE: MOVING THE CHEESE: DESIGNING SPATIO-TEMPORAL COLLABORATIVE CROWD SOURCING PLATFORMS

From Amazon Mechanical Turk and Uber, to TaskRabbit and Go-Jek, crowd and manpower sourcing is defining a new labour economy. In "Who Moved My Cheese? An Amazing Way to Deal with Change in Your Work and in Your Life" Spencer Johnson metaphorically commented on change and adaptiveness. Crowd sourcing and the Uberization of the economy create one major disruption unfolding in front of our eyes. It is time to harness the challenges and devise algorithms that make this new labour distribution and management paradigm sustainable and, more specifically, equitable. Crowd sourcing platform must balance the workload, costs and benefits among the

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platform operator, the requesters and the workers.

Crowdsourcing is an activity consisting in outsourcing tasks to a community of online, yet on-ground and mobile, workers. A spatio-temporal collaborative task is characterized by the requirement that a set of workers meeting some complementary skills requirements must move from their current location to a specified location to accomplish the task under some time constraints.

In this presentation we discuss selected issues and challenges in the design and implementation of effective, efficient and equitable spatio-temporal collaborative crowdsourcing platforms. We examine pricing mechanisms, their truthfulness and their social fairness as well as the management of uncertainty.

ADVANCE PROGRAM

Monday, October 17th, 2016-CONFERENCE			
Time	Event	Event Details	Rooms
07.30-08.30		Registration	
08.30-08.40	Opening Ceremony	Opening speech from the General Chair of SIET 2016, Tri Astoto Kurniawan, S.T, M.T, Ph.D	Auditorium, Widyaloka Building, Universitas Brawijaya
08.40-08.50		Opening speech from the Rector of Universitas Brawijaya, Prof. Dr. Ir. Mohammad Bisri, M.S.	
08.50-09.35	Keynote Speaker	Prof. Rao Kotagiri from University of Melbourne, Australia Moderator : Tri Astoto Kurniawan, ST., MT., Ph.D.	
09.35-09.45		SIET Photo Session	
09.45-10.00	Coffee Break		
10.00-10.45	Keynote Speaker	Prof. Kohei Arai from Saga University, Japan Moderator : Dr. Eng. Herman Tolle, ST., MT.	Auditorium, Widyaloka Building, Universitas Brawijaya
10.45-11.30	Invited Speaker	Prof. Stéphane Bressan From National University of Singapore, Singapore Moderator : D.Sc. Fatwa Ramdani, S.Si., M.Sc.	
11.30-13.00	Lunch		
13.00-15.00	Parallel Session : Two Parallel Sessions		Auditorium, Room A
15.00-15.30	Coffee Break		
15.30-16.00	Closing Ceremony		Auditorium, Widyaloka Building, Universitas Brawijaya

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Parallel Session I (Auditorium) Monday, October 17th, 2016 Session Chair : Tibyani, ST, MT.		
Time	Paper	Rooms
13.00-13.20	Cost and Time Optimization in Project Management via Project Management Process Methodology (PM2) <i>Dana Aditya , Riyanarto Sarno</i>	Auditorium
13.20-13.40	Pattern for Business Process Decomposition Using BPMN and Redundancy <i>Anuruddha De Alwis, Indika Perera, and Akila Pemasiri</i>	
13.40-14.00	Optimal Camera Captured Image Identification and Description by using Machine Vision Techniques <i>Anuruddha De Alwis, Minsara Madhawa ,Lochandaka Ranathunga</i>	
14.00-14.20	Implementation of Real Coded Genetic Fuzzy System for Rainfall Forecasting <i>Tirana Noor Fatyanosa and Wayan Firdaus Mahmudy</i>	
14.20-14.40	Analysis and Design of Parking Negotiation System using MaSE Methodology <i>Hilman Nuril Hadi and Tri A. Kurniawan</i>	
14.40-15.00	Authentication Face Recognition Pattern System in Customers ATM Service Using Linear Distance Analysis and Bayes Algorithms <i>Satria Habiburrahman Fathul Hakim and Fitri Utaminingrum</i>	

ADVANCE PROGRAM

Parallel Session II (Room A) Monday, October 17th, 2016 Session Chair : Sabriansyah Rizqika A., ST., MT.		
Time	Paper	Rooms
13.00-13.20	Development of Mobile Braille Touch (MBT) as Learning Braille Media for Visually Impaired Users <i>Anik Nur Handayani, Triyanna W, Aji Prasetya W, M.Rizky Kurniawan</i>	Room A
13.20-13.40	Sentiments Behind Citations: Tracking the Need, Current Work and Future Directions of Citation Sentiment Analysis. <i>Dr. Sarabjeet Kaur , Uma Ojha, Urvashi Choudhary, Vasundhra Dahiya</i>	
13.40-14.00	On Comparing Smart City Assesment Frameworks <i>Ahsanun N. Khudori , Angga Santoso, Afta R. Zayn, Tri A. Kurniawan</i>	
14.00-14.20	Sensor Data Transmission using Lossless Network Streams for Smart Home Application <i>Barlian Henryranu Prasetio , Dahnial Syauqy, Rizal Maulana, Gembong Edhi Setyawan</i>	
14.20-14.40	Simulation of Coordinated Traffic Light Control Using Fuzzy Controller <i>Gembong Edhi Setyawan, Wijaya Kurniawan, Barlian Henryranu Prasetio, Shanti Siburian</i>	
14.40-15.00	Analytic Hierarchy Process (AHP) Method for the Winner of e-Procurement Determination <i>Heru Nurwarsito, Indriati, and Gusti Eka Yuliasuti</i>	