

CONFERENCE PROGRAM

Day 1 – 23 April 2018

8:00 – 8:45 REGISTRATION

8:45 – 9:00 WELCOME MESSAGE/OPENING SPEECH

9:00 – 9:40 **KEYNOTE SPEECH 1**

Professor Soung Chang Liew, The Chinese University of Hong Kong, Hong Kong

What has Deep Learning got to do with Wireless Networking?

9:40 – 10:20 **KEYNOTE SPEECH 2**

Professor Tek Tjing Lie, Auckland University of Technology, New Zealand

Electricity Utility and Grid of the Future: Implementation, Technology, Regulations & Policy

10:20 – 10:40 MORNING TEA

10:40 – 12:00 Presentation Session 1

Chair: Dr. Saeed Rehman

1. *Temporary Internet Access for Authentication and Key Agreement for LTE Networks*

Xue Jun Li¹, Maode Ma², and Jiecheng Xie² (¹Auckland University of Technology, NZ; ²Nanyang Technological University, Singapore)

2. *A Smartphone and IoT-Assisted Post-Disaster Communication and Recovery Method*

Md Akbar Hossain¹ and Sayan Kumur Ray² (¹Auckland University of Technology, NZ; ²Manukau Institute of Technology, NZ)

3. *Heuristics-based Detection for Abnormal Energy Consumption*

Ankur Sial¹, Amarjeet Singh¹, Aniket Mahanti², and Mingwei Gong³ (¹IIT-Delhi, India; ²University of Auckland, NZ; ³Mount Royal University, Canada)

4. *Real-time CPU Scheduling Approach for Mobile Edge Computing System*

Xiaoyi Yu, Ke Wang, Wenliang Lin, and Zhongliang Deng (Beijing University of Posts and Telecommunications, China)

5. *Optimal placement & sizing of DG & shunt capacitor for power loss minimization in an islanded distribution system*

Mingu Kang and Ramon Zamora (Auckland University of Technology, NZ)

12:00 – 13:15 LUNCH BREAK

13:15 – 3:00 Presentation Session 2

Chair: Dr. Hakilo Sabit

Invited Speaker 1

Professor Yong Liang Guan, Nanyang Technological University, Singapore

Applications of Temporal Network Coding in V2X Communications

Xiaoli Xu, Yumeng Gao, and Yong Liang Guan (Nanyang Technological University, Singapore)

1. *Blockchain based Energy Trading Model for Electric Vehicle Charging Schemes (Invited Paper)*

Chao Liu, Kok Keong Chai, Eng Tseng Lau, Yue Chen (Queen Mary University of London, UK)

2. *Energy-Efficiency Maximisation in Random Cognitive Radio Networks*

Saifur Rahman Sabuj¹, Md Akbar Hossain², and Edmund Lai² (¹BRAC University, Bangladesh; ²Auckland University of Technology, NZ)

3. *Opportunistic Fog Computing for 5G Radio Access Networks: A Position Paper*

Jofina Jijin and Boon-Chong Seet (Auckland University of Technology, NZ)

15:00 –15:15 AFTERNOON TEA

15:15 –17:00 Presentation Session 3

Chair: Dr. Ramon Zamora

Invited Speaker 2

Professor **Ho-Pui Ho**, The Chinese University of Hong Kong, Hong Kong

A wireless biosensor platform based on the lab-on-a-disc approach for point-of-care DNA screening applications

Minghui Tang, Yuye Wang, Jacky Fong-Chuen Loo, Siu-Kai Kong, Ho-Pui Ho (The Chinese University of Hong Kong, Hong Kong)

1. *A Sustainable Connectivity Model of the Internet Access Technologies in Rural and Low-Income Areas*

Maria E. Villapol, William Liu, Jairo Gutierrez, ... (Auckland University of Technology, NZ)

2. *E-Mobility: smart grid and charging session of electric vehicles*

Gabriele Corzato¹, Luca Secco², Arslan Rasheed³, Atulya Kumar Nagar⁴, Emanuele Lindo Secco⁴ (¹University of Padova, Italy; ²DriWe, Italy; ³Auckland University of Technology, NZ; ⁴Liverpool Hope University, UK)

3. *Optimizing Sliding Performance in iOS*

Qin Zhao, Qi Qi, Lejian Zhang, Qiwei Shen (Beijing University of Posts and Telecommunications, China)

4. *A Dialog Robot Based on WeChat*

Xiaoyi Chen, Jing Wang, Qiwei Shen, Qi Qi, Jingyu Wang (Beijing University of Posts and Telecommunications, China)

18:00 CONFERENCE GALA DINNER

Day 2 – 24 April 2018

8:30 – 9:00 REGISTRATION

9:00 – 9:40 **KEYNOTE SPEECH 3**

Professor Maode Ma, Nanyang Technological University, Singapore

Efficient and Secure Authentication Schemes for IEEE 802.11ah Networks

9:40 – 10:05 **Invited Speaker 3**

Professor Ivan Wang-Hei Ho, The Hong Kong Polytechnic University, Hong Kong

NO-V2X: Non-Orthogonal Multiple Access with Side Information for V2X Communications

Zhenhui Situ and Ivan Wang-Hei Ho (The Hong Kong Polytechnic University, Hong Kong)

10:05 – 10:25 MORNING TEA

10:25 – 12:00 Presentation Session 4

Chair: Dr. Ivan Ho

1. *Connecting Makaraka – A Case Study for Rural Connectivity in New Zealand*

Syeda Kanwal Zaidi, Ali Abdul Adheem, Syed Faraz Hasan, and Xiang Gui (Massey University, NZ)

2. *A New Energy Efficient Big Data Dissemination Approach Using the Opportunistic D2D Communications*

Ambreen Memon¹, William Liu, and AdnanAl-Anbuky (Auckland University of Technology, NZ)

3. *Prediction of Electricity consumption for residential houses in New Zealand*

Aziz Ahmad¹, Timothy. N. Anderson², and Saeed Ur Rehman² (¹Unitec Institute of Technology, NZ; ²Auckland University of Technology, NZ)

4. *Physical-Layer Network Coding with High-order Modulations*

Xuesong Wang and Lu Lu (Chinese Academy of Sciences, China)

5. *Non-Orthogonal Multiple Access for Similar Channel Conditions*

Asim Anwar, Boon-Chong Seet, and Xue Jun Li (Auckland University of Technology, NZ)

12:00 – 13:15 LUNCH BREAK

13:15 – 15:00 Presentation Session 5

Chair: Dr. Xuejun Li

1. *IoT Based Experimental Study to Modify Water Consumption Behavior of Domestic Users (Invited Paper)*

Aneeq-ur-Rehman¹, Reeba Raza¹, Naveed Ul Hassan¹, Yuren Zhou², Rui Liu², Benny Kai Kiat Ng² and Chau Yuen² (¹Lahore University of Management Sciences, Pakistan; ²Singapore University of Technology and Design, Singapore)

2. *A Sustainable Marriage of Telcos and Transp in the Era of Big Data: Are We Ready? (Invited Paper)*

Salman Naseer, William Liu, Nurul I Sarkar, ... (Auckland University of Technology, NZ)

3. *Review of Cost Optimization of Electricity Supply by Using HOMER and A Case Study for A Big Commercial Customer in Brazilian Amazon Area*

Abdulrahim Hamed S Alghamdi, Carlos Henrique Marciano Rodrigues Castro, and Ramon Zamora (Auckland University of Technology, NZ)

4. *Efficient Fault Identification Protocol for Dynamic Topology Networks using Network Coding*

Hazim Jarrah, Peter H. J. Chong, Nurul I. Sarkar, Jairo Gutierrez (Auckland University of Technology, NZ)

15:00 –15:15 AFTERNOON TEA

15:15 –17:00 Presentation Session 6

Chair: Dr. Maode Ma

1. *Performance Evaluation of Handover Protocols in Software Defined Networking Environment*

Syed Faraz Hasan², , Shan Jaffry², , Yaw-Wen Kuo¹, and Xiang Gui², Dong-Ru Lee¹ (¹National Chi Nan University, Taiwan; ²Massey University, NZ)

2. *Dynamic Spectrum Management in 5G: Lessons from Technological Breakthroughs in Unlicensed Bands Use*

Fernando Beltrán¹, Sayan Kumar Ray², and Jairo Gutiérrez³ (¹University of Auckland, NZ; ²Manukau Institute of Technology, NZ; ³Auckland University of Technology, NZ)

3. *Dual Sensing Scheduling Algorithm for Wireless Sensor Network based Road Segment Surveillance*

Farhan Khan and Sing Kiong Nguang (University of Auckland, NZ)

4. *A Clique based Asymmetric Rendezvous Scheme for Cognitive Radio Ad-Hoc Networks*

Md Akbar Hossain and Nurul I Sarkar (Auckland University of Technology, NZ)

5. *The Blockchain Marketplace as the fifth type of electricity market*

Yueqiang Xu¹, Petri Ahokangas¹, Seppo Yrjölä², Timo Koivumäki¹ (¹University of Oulu, Finland; ²Nokia, Finland)

17:00 – 17:10 Conference Closing Remark