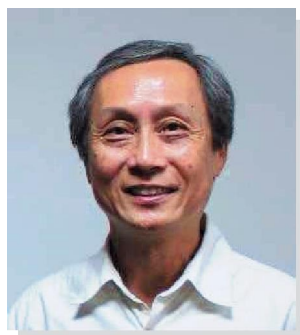


2018/09/06 (Thu) 13:00-16:00

Bldg. 4, Room 722
Language: English



Speaker 1.
Prof. Kwei-Jay Lin
(University of California, Irvine)

Talk Title:

ArPico: Using Pictures to Build Localization Service for Indoor IoT Applications

Abstract:

The emergence of the Internet-of-Things (IoT) has changed the way humans interact with the real world. Many IoT systems have been deployed for indoor applications that must be location- and context-aware. In this talk, we present an innovative technology that uses a single camera to inspect framed pictures in the surrounding environment and produces the device locations. Our idea is motivated by the popular ARUco markers. By using simple transformation algorithms, our service converts framed pictures into ARUco markers and then identifies their marker ID's and locations. We have used the technology to deploy indoor drones so that each drone can be location-aware. The drone camera can also stream video frames back to edge servers for human face recognition in order to identify the locations of specific persons. We believe our proposed picture as marker model offers an attractive and low-cost localization technology for many indoor IoT applications.

About the Speaker:

Kwei-Jay Lin is a Professor at the University of California, Irvine, USA and Nagoya Institute of Technology, Japan. He is the Chief Scientist of the NTU IoX Research Center at the National Taiwan University. He is also an Adjunct Professor at the National Taiwan University and National Tsinghua University, Taiwan, Zhejiang University, China. He was an Associate Professor at the University of Illinois, Urbana-Champaign 1985-1993. He was a Visiting Research Fellow at the Academia Sinica, Taiwan in Spring 2016. Prof. Lin is an IEEE Fellow, and Editor-In-Chief of the Springer Journal on Service-Oriented Computing and Applications (SOCA). He was the Co-Chair of the IEEE Technical Committee on Business Informatics and Systems (TCBIS) until 2012. He was an Associate Editor of IEEE Transactions on Parallel and Distributed Systems, 2002-2006, and an Associate Editor of IEEE Transactions on Computers, 1996-2000. He was the External Examiner for the Hong Kong University's Program on E-Commerce and Internet Computing during 2006-2009. Prof. Lin has published more than 200 papers in journals and conferences. He has served on many international conferences, recently as PC-chair of IEEE SOCA 2017 and conference co-chair of CBI 2015. He has given keynote speeches in the 22nd IEEE Conference on Embedded and Real-Time Computing Systems and Applications in August 2016, the 6th IEEE Symposium on Cloud and Service Computing, in December 2016, and the 11th IEEE International Symposium on Service-Oriented System Engineering, in April 2017. His research interest includes service-oriented systems, intelligent IoT applications, middleware and kernel, real-time computing, and distributed computing.



Speaker 2.
Dr. Quan Bai
(Auckland University of Technology)

Talk Title:

Agent-based influence propagation modelling

Abstract:

Agent-based technique is one of the most effective method for modelling complex systems. With the arrival of the 3rd "AI summer", more and more people have realized the importance of such techniques, especially in the fields such as IoT, Online Social Networks and crowd computing. In this talk, I will briefly introduce my recent research findings in agent-based modelling and agent-based data mining, and their applications.

About the Speaker:

Dr Quan Bai received the MSc and PhD degrees from the University of Wollongong, Australia, in 2002 and 2007, respectively. He is currently a senior lecturer and the Head of Doctoral Studies at the School of Engineering, Computer and Mathematical Sciences, Auckland University of Technology, New Zealand. After he had received his PhD, he worked as a postdoctoral research fellow for the University of Wollongong, and for the Commonwealth Scientific and Industrial Research Organisation (CSIRO). His research mainly focuses on multi-agent coordination, trust analysis, data mining and agent-based modelling for complex systems. He is currently serving as an associate editor for the Decision Support Systems, and a local organisation chair for AAMAS2020.

本講義は博士前期・博士後期「特別演習」認定講義となりますので、出席の上、必要な条件を満たした場合は、以下の科目の認定要件に加算されます。

- ・材料・エネルギー特別演習 1、材料・エネルギー特別演習 2
- ・情報・社会特別演習 1、情報・社会特別演習 2
- ・材料・エネルギー先進特別演習 1、材料・エネルギー先進特別演習 2
- ・情報・社会先進特別演習 1、情報・社会先進特別演習 2

※学生証要持参