**人工智能与大数据系列学术报告会**

**报告题目1**：Using Companion Robots for Research and Education

**报告人**： Patrick C. K. Hung，Faculty of Business and IT, University of Ontario Institute of Technology, Canada

**报告时间**：2018年10月13日（周六）下午 14:30-15:15

**报告地点**：安徽大学（磬苑校区）理工D楼318会议室

**报告摘要**：The concept of robots, or other autonomous constructions, can be found in many different cultures dating back to ancient times. A companion robot is defined as a device consisting of a physical robot component that connects to Cloud services to improve the ease and productivity of activities through networking, multi-media and sensory technologies. It is believed that robotic computing can provide a good experience to engage university and pre-university students in Science, Technology, Engineering, and Mathematics (STEM) education. Many studies found out that anthropomorphic designs of what robots are, what they can do, and how they should be understood resulted in greater user engagement within the history of Western countries. Humanoid robots usually behave like natural social interaction partners for human users, with features such as speech, gestures, and eye-gaze, in referring to the personal data and social background of the users. Cultural differences may influence human-robot interaction with different social norms and cultural traits, especially in West and East. In contrary to the Western image of robots as frightening machines, there is a different culture in the East. This talk discusses several research and education studies on companion robots from this socio-technical perspective.

报告人简介：Patrick C. K. Hung is a Professor and Director of International Programs at the Faculty of Business and Information Technology in University of Ontario Institute of Technology, Canada. the Patrick worked with Boeing Research and Technology at Seattle on aviation services-related research with two U.S. patents on mobile network dynamic workflow system.Before that, he was a Research Scientist with Commonwealth Scientific and Industrial Research Organization in Australia. He is a founding member of the IEEE Technical Committee on Services Computing, and the IEEE Transactions on Services Computing. He has Ph.D. and Master in Computer Science from Hong Kong University of Science and Technology, Master in Management Sciences from the University of Waterloo, Canada and Bachelor in Computer Science from University of New South Wales, Australia.

**报告题目2**：Smart car

**报告人**： Shih-Chia Huang， Department of Electronic Engineering at National Taipei University of Technology

**报告时间**：2018年10月13日（周六）下午 15:15-16:00

**报告地点**：安徽大学（磬苑校区）理工D楼318会议室

**报告摘要**：In contrast to a traditional mechanical car, the Smart Car is a highly computerized automobile featuring ubiquitous computing, intuitive human-computer interaction and an open application platform. In this talk, we propose an advanced Smart Car demonstration platform with a transparent windshield display and various motion sensors where drivers can manipulate a variety of car-appropriate applications in augmented reality. Similar to smartphones, drivers can customize their Smart Car through free downloads of car-appropriate applications according to their needs. Additionally, three potential car-appropriate applications related to computer vision are investigated and implemented in our platform for increased driving safety. The first and second carappropriate applications aim to enhance the driving visual field by restoring the low-visibility scenes captured during inclement-weather or nighttime driving conditions to be high-visibility ones, respectively, and display them on a transparent windshield display. We also survey pedestrian tracking techniques that combine multiple driving recorders' information as a mobile surveillance network, including one proposed framework we have developed as the third car-appropriate application. By embedding these carappropriate applications, the Smart Car has the potential to increase safety of driving conditions both in daytime and nighttime, even in bad weather.

**报告人简介**：Shih-Chia Huang is a Full Professor with the Department of Electronic Engineering at National Taipei University of Technology, Taiwan, and an International Adjunct Professor with the Faculty of Business and Information Technology, University of Ontario Institute of Technology, Canada. He has been named a senior member of the Institute of Electrical and Electronic Engineers (IEEE). He is currently the Chair of the IEEE Taipei Section Broadcast Technology Society, and was a Review Panel Member of the Small Business Innovation Research (SBIR) program for the Department of Economic Development of Taipei City and New Taipei City, respectively.Professor Huang has published more than 50 journal and conference papers and holds more than 50 patents in the United States, Europe, Taiwan, and China. In 2009, he received a doctorate degree in Electrical Engineering from National Taiwan University, Taiwan. Dr. Huang was presented with the Kwoh-Ting Li Young Researcher Award in 2011 by the Taipei Chapter of the Association for Computing Machinery, as well as the Dr. Shechtman Young Researcher Award in 2012 by National Taipei University of Technology. Professor Huang was the recipient of an Outstanding Research Award from National Taipei University of Technology in 2014 and the College of Electrical Engineering and Computer Science, National Taipei University of Technology in 2014-2016. In addition, he is an associate editor of the Journal of Artificial Intelligence and a guest editor of the Information Systems Frontiers and the International Journal of Web Services Research. He is also the Services and Applications Track Chair of IEEE CloudCom conference in 2016-2017, the Deep learning, Ubiquitous and Toy Computing Minitrack Chair of Hawaii International Conference on System Sciences in 2017-2018, and was the Applications Track Chair of IEEE BigData Congress in 2015 and General Chair of IEEE BigData Taipei Satellite Session in 2015-2016.His research interests include intelligent multimedia systems, image processing and video coding, video surveillance systems, cloud computing and big data analytics and mobile applications and systems.

**报告题目3**：基于混合模式的大数据处理沙箱技术研发

**报告人**： 吕智慧副教授， 复旦大学

**报告时间**：2018年10月13日（周六）下午 16:00-16:45

**报告地点**：安徽大学（磬苑校区）理工D楼318会议室

**报告摘要**：在大数据处理平台，面对多个用户不同数据大小、不同性能和代价要求的大数据交易和处理请求，系统需要适配各种应用特征，动态高效的完成多种计算沙箱（ Hadoop、 Spark、Storm）的自动快速配置，形成每个用户的专用空间，在该相对隔离的空间内进行安全可信和高效的大数据分析处理。 因此，大数据处理沙箱是在共享物理和虚拟计算/存储资源池云平台基础上，承载特定大数据处理分析任务的，与其它计算资源相对安全隔离的自完整的独立虚拟环境专用空间。本研究内容围绕支持构建大数据处理专有空间，通过动态软硬件环境自动配置及机器学习方法， 在基于虚拟化技术构建的共享 IT 基础设施上建立起高效、可信、具有安全隔离机制的大数据处理沙箱，并支持虚机和容器资源混合模式，提供大数据处理软硬件专用环境供用户使用，保证处理顺利进行，并防止敏感信息从大数据处理沙箱泄露。

**报告人简介**：吕智慧，博导，2004.7复旦大学博士毕业后留校工作，复旦大学计算机科学技术学院副教授，中国信息技术标准化委员会云计算标准工作组专家成员，DMTF国际标准组织大学成员代表，IEEE会员，国际服务计算学会青年科学家论坛2015中国副主席，中国计算机学会服务计算专委会委员，中国通信学会会员，上海计算机学会会员，NEINE2004-2008,ICCS2008，ICPADS2012,SCC2013-2014,BigData2014, CloudCom2014,DataCloud2014,CSE2014，IEEE BigData2015,UIC2015，UIC2016, SCC2016, IEEE ICIoT2017多个国际会议PC委员，IEEE CSCloud&EdgeCom 2018 本地主席。主要研究领域包括：网络多媒体技术、内容分发技术、云计算和边缘计算、大数据架构技术。在近二十年的科研生涯中，先后组织和参加若干项国家级项目和重点项目的研发，在国内外权威核心期刊和高水平国际会议发表了一系列论文100多篇，其中60多篇被SCI/EI核心索引，主导申请15项专利，6项获得授权，获得5项软件著作权。由于在网络多媒体内容分发和云架构领域工作突出， 2015年作为第二完成人获得上海市科技进步一等奖：基于网宿全球混合云架构的CDN及P2P内容优化分发平台关键技术研究及应用。