# 学术报告会

时间：**2017年4月24日(周一)10:00**
地点：电院群楼**2-410**会议室

## Unsupervised Multi-Author Document Decomposition based on Hidden Markov Model

### Professor Xiangjian (Sean) He

**University of Technology, Sydney (UTS)**

## Abstract:

This talk presents an unsupervised approach for segmenting a multi-author document into authorial components. The key novelty is that we utilize the sequential patterns hidden among document elements when determining their authorships. For this purpose, we adopt Hidden Markov Model (HMM) and construct a sequential probabilistic model to capture the dependencies of sequential sentences and their authorships. An unsupervised learning method is developed to initialize the HMM parameters. Experimental results on benchmark datasets including a corpus of blogs and a group of New York Times articles have demonstrated the significant benefit of our idea and our approach has outperformed the state-of-the-arts on all tests. As another example of its applications, the proposed approach is applied for attributing authorship of a document and has also shown promising results.

## Biography:

Professor Xiangjian He is the Director of Computer Vision and Pattern Recognition Laboratory at the Global Big Data Technologies Centre (GBDTC), at the University of Technology, Sydney (UTS). He is also the Director of UTS-NPU International Joint Laboratory on Digital Media and Intelligent Networks. He is an IEEE Senior Member and has been an IEEE Signal Processing Society Student Committee member. He has been awarded 'Internationally Registered Technology Specialist' by International Technology Institute (ITI). He has been carrying out research mainly in the areas of computer vision, network security, and pattern recognition in the previous years. He has played various chair roles in many international conferences such as ACM MM, MMM, IEEE TrustCom, IEEE CIT, IEEE AVSS, IEEE ICPR and IEEE ICARCV. In recent years, he has many high quality publications in IEEE Transactions journals such as IEEE Transactions on Computers, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Multimedia, IEEE Transactions on Circuits and Systems for Video Technology, IEEE Transactions on Cloud Computing, IEEE Transactions on Reliability, IEEE Transactions on Consumer Electronics, and in Elsevier's journals such as Pattern Recognition, Signal Processing, Neurocomputing, Future Generation Computer Systems, Computer Networks, Computer and System Sciences, Network and Computer Applications. He has also had papers published in premier international conferences and workshops such as ACL, IJCAI, CVPR, ECCV, ACM MM, TrustCom and WACV. He has recently played editorial roles for various international journals such as Journal of Computer Networks and Computer Applications (Elsevier) and Signal Processing (Elsevier). He is currently an Advisor of HKIE Transactions. Since 1985, he has been an academic, a visiting professor, an adjunct professor, a postdoctoral researcher or a senior researcher in various universities/institutions including Xiamen University, China, Shanghai Jiaotong University, China, Northwestern Polytechnical University, China, University of New England, Australia, University of Georgia, USA, Electronic and Telecommunication Research Institute (ETRI) of Korea, University of Aizu, Japan, Hongkong Polytechnic University, and Macau University.