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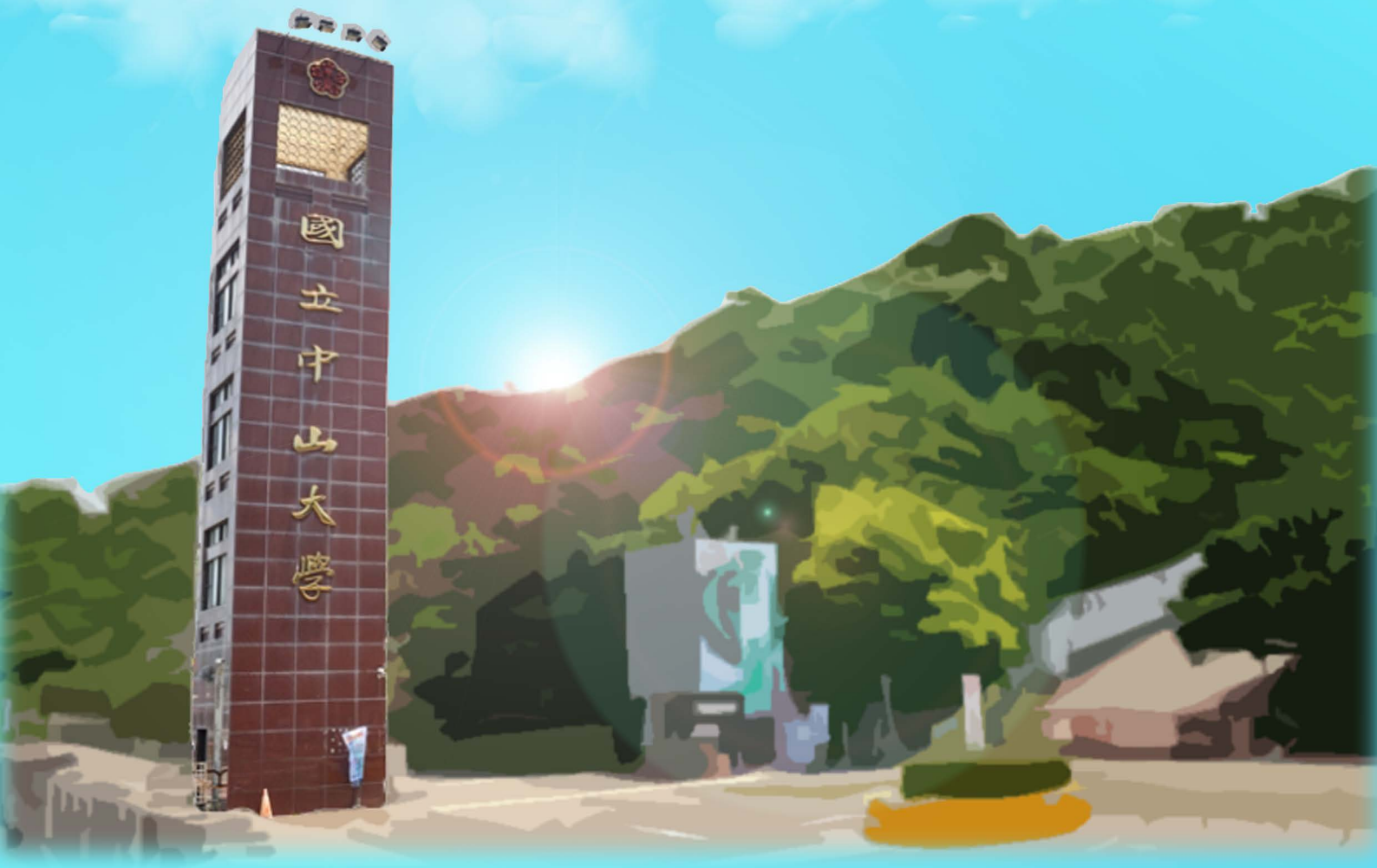

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序言

本屆ROCLING共收到投稿數為41篇，每篇論文都均邀請至少3位該領域的專家學者進行審查，最後議程委員會共接受17篇oral presentation論文和12篇poster presentation論文，包含了語音辨認與合成、機器翻譯、語音學與音韻學之分析及應用、自然語言處理之應用、工具與資源、及語音識別和理解等領域，此審查結果維持了ROCLING歷屆以來一貫的論文品質，並兼顧多層面研究人員的參與，在此非常感謝論文審查委員的把關。

今年的議程安排，除了最新的學術論文的發表外，也邀請兩位語音及自然語言處理領域專家給予專題演講，包括美國University of Illinois at Chicago (UIC)的Bing Liu教授以及來自於日本Tokyo Institute of Technology的Sadaoki Furui教授，分別就Sentiment and Opinion Centric Analysis of Social Media Content以及Data-intensive Automatic Speech Recognition Based on Machine Learning給予精彩的演講。非常感謝他們遠道而來為大會增色不少。

我們同時要感謝國科會工程科技推展中心、中央研究院資訊科學研究所、中華電信研究所、資訊工業策進會、工業技術研究院、賽微科技與致遠科技的協辦與贊助。擴大接觸層面，將產業界與學術界結合做為語言處理與語音技術之共同夥伴。

最後，感激各位與會先進的積極參與和支持，使本次研討會得以順利舉行。

大會主席 楊弘敦、陳嘉平、許聞廉
議程主席 張嘉惠、王家慶
2013 年 10 月 04 日

Program Overview

October 4, 2013		
09:00-09:40	Registration	
09:40-10:00	Opening Ceremony	Hung-Duen Yang President of National Sun Yat-sen University
10:00-11:00	Keynote A: Sentiment and Opinion Centric Analysis of Social Media Content	Speaker: Bing Liu Prof. University of Illinois at Chicago (UIC)
11:00-11:10	Coffee Break	
11:10-12:30	Session: Speech Processing (I)	
12:30-13:30	Lunch	
13:30-14:10	ACLCLP Assembly	
14:10-15:10	Session: Machine Translation	Chair: Jason S. Chang
15:10-16:10	Session: Speech Synthesis and Conversion	
16:10-16:20	Coffee Break	
16:20-16:30		IJCLCLP editors meeting
16:30-16:40	Poster and System Demo	
16:40-17:00		
17:00-17:40		ACLCLP 理監事聯合會議
17:40-18:00		
18:00-20:00	Banquet	
October 5, 2013		
08:45-08:55	Photo session	
09:00-10:00	Keynote B: Data-intensive Automatic Speech Recognition Based on Machine Learning	Speaker: Sadaoki Furui Prof. Tokyo Institute of Technology Chair: Hsin-min Wang
10:00-10:10	Coffee Break	
10:10-11:20	Panel Discussion	
11:20-12:20	Session: NLP	Chair: Chao-Lin Liu
12:20-13:30	Lunch	
13:40-15:00	Session: Speech Processing (II)	
15:10-16:10	ACLCLP Best Dissertation/Thesis Section	Chair: Berlin Chen
16:10-16:30	Closing Ceremony and Best Paper Award	

目錄

Keynote Speech

ROCLING 2013 Paper

Keynote Speech

Keynote A

Sentiment and Opinion Centric Analysis of Social Media Content

Invited Speaker : Prof. Bing Liu

Abstract

Social media analysis has become a major research direction in recent years due to numerous applications and challenging research problems. In this talk, I will present a sentiment and opinion centric framework for social media content analysis because in most applications of social media the most important information that one wants to mine are what people talk about and what their opinions are. These are exactly the tasks of sentiment analysis. In fact, many social media mining tasks can be seen as post-processing of sentiment analysis results. Additionally, sentiment information tells us the importance of topics, events and people because everything that we consider important arouses our emotions which are expressed in text as opinion and sentiment expressions. In recent years, sentiment analysis (also called opinion mining) has grown to become a very active research area in natural language processing and in data mining. The research has in fact spread outside of computer science to management science and many areas of social science such as communication and political science due to its importance to business and society as whole. After all, opinions are central to almost all human activities and are key influencers of our behaviors. Whenever we need to make a decision, we want to hear others' opinions. In this talk, apart from discussing the above framework, I will describe some current research in sentiment analysis and go beyond the current mainstream sentiment analysis research to discuss some emerging and closely related topics in the crossroad of computer science and social science.

Biography

Bing Liu is a professor of Computer Science at the University of Illinois at Chicago (UIC). He received his PhD in Artificial Intelligence (AI) from University of Edinburgh. Before joining UIC, he was with the National University of Singapore. His current research interests include sentiment analysis and opinion mining, opinion spam detection, and social media modeling. He has published extensively in top conferences and journals in these areas, and has given numerous keynote and invited talks. His work on opinion spam detection has received world-wide press coverage including a front page article of The New York Times. In 2012, he

published a book titled "Sentiment Analysis and Opinion Mining" (Morgan and Claypool Publishers). Liu's earlier work was in the areas of data mining, Web mining, and machine learning, where he also published extensively in leading conferences and journals, and a textbook titled "Web Data Mining: Exploring Hyperlinks, Contents and Usage Data" (Springer). On professional services, Liu has served as program chairs of KDD, ICDM, CIKM, WSDM, SDM, and PAKDD, and as area/track chairs or senior PC members of many data mining, natural language processing, Web technology and AI conferences. Additional information about him can be found at <http://www.cs.uic.edu/~liub/>

Keynote B

Data-intensive Automatic Speech Recognition Based on Machine Learning

Invited Speaker : Prof. Dr. Sadaoki Furui

Abstract

Since speech is highly variable, even if we have a fairly large-scale database, we cannot avoid the data sparseness problem in constructing automatic speech recognition (ASR) systems. How to train and adapt statistical models using limited amounts of data is one of the most important research issues in ASR. This talk summarizes major techniques that have been proposed to solve the generalization problem in acoustic model training and adaptation, that is, how to achieve high recognition accuracy for new utterances. One of the common approaches is controlling the degree of freedom in model training and adaptation. The techniques can be classified by whether a priori knowledge of speech obtained from a speech database such as those recorded using many speakers is used or not. Another approach is maximizing “margins” between training samples and the decision boundaries. Many of these techniques have also been combined and extended to further improve performance.

Although many useful techniques have been developed, we still do not have a golden standard that can be applied to any kind of speech variation and any condition of the speech data available for training and adaptation. We need to focus on collecting rich and effective speech databases covering a wide range of variations, active learning for automatically selecting data for annotation, cheap, fast and good-enough transcription, and efficient supervised, semi-supervised, or unsupervised training/adaptation, based on advanced machine learning techniques. We also need to extend current efforts to understand more about human speech processing and the mechanism of natural speech variation.

Biography

Sadaoki Furui received the B.S., M.S., and Ph.D. degrees from the University of Tokyo, Japan in 1968, 1970, and 1978, respectively. After joining the Nippon Telegraph and Telephone Corporation (NTT) Labs in 1970, he has worked on speech analysis, speech recognition, speaker recognition, speech synthesis, speech perception, and multimodal human-computer interaction. From 1978 to 1979, he was a visiting researcher at AT&T Bell Laboratories, Murray Hill, New Jersey. He was a Research Fellow and the Director of Furui Research Laboratory at NTT Labs. He became a Professor at Tokyo

Institute of Technology in 1997, and was given the title of Professor Emeritus in 2011. He is now serving as President of Toyota Technological Institute at Chicago (TTI-C). He has authored or coauthored over 900 published papers and books including “Digital Speech Processing, Synthesis and Recognition.” He was elected a Fellow of the IEEE (1993), the Acoustical Society of America (ASA) (1996), the Institute of Electronics, Information and Communication Engineers of Japan (IEICE) (2001) and the International Speech Communication Association (ISCA) (2008). He received the Paper Award and the Achievement Award from the IEICE (1975, 88, 93, 2003, 2003, 2008), and the Paper Award from the Acoustical Society of Japan (ASJ) (1985, 87). He received the Senior Award and Society Award from the IEEE SP Society (1989, 2006), the ISCA Medal for Scientific Achievement (2009), and the IEEE James L. Flanagan Speech and Audio Processing Award (2010). He received the NHK (Nippon Hoso Kyokai: Japan Broadcasting Corporation) Broadcast Cultural Award (2012) and the Okawa Prize (2013). He alsoreceived the Achievement Award from the Minister of Science and Technology and the Minister of Education, Japan (1989, 2006), and the Purple Ribbon Medal from Japanese Emperor (2006)

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