出國報告(出國類別:國際會議)

# 第十屆智慧訊息隱藏及多媒體訊號 處理之國際會議報告書

服務機關:國立虎尾科技大學

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派赴國家:日本 北九州

出國期間:103/8/27-8/31

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# 摘要

國際會議的舉行,其主要是將近來相關專業研究具有創新、獨特性等特性的研究方法或理念,藉由論文的發表或是展示來呈現其成果。讓與會來自世界各地該方面的專家、學者或開發研究者得以學習觀摩且具意義的交流機會。本次國際會議『The Tenth International Conference on Intelligent Information Hiding and Multimedia Signal Processing』已邁入第十屆,定期每年在不同國家來舉辦,藉由會議的舉行,交換新知及吸收新的科技,提升自我專業方面的在精進。

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# 一、目的

本次出國的主要目地是參加 8/27-8/29 在日本北九州所舉行的國際會議,會議名稱是『International Conference on Intelligent Information Hiding and Multimedia Signal Processing』。並將自己的研究成果以口頭報告之方式在會議中報告,與與會的專家學者分享研究成果,並進行討論。藉以達成參加本次會議的效益。

# 二、過程

本次出國期間是從103年8月27日~至8月31日,主要是參加由IEEE Taiwan Section Taiwan Chapter of IEEE Signal Processing Society, National Kaohsiung Univ. Applied Science, Waseda University 等共同舉辦在日本北九州國際會議中心為期三天的國際會議『International Conference on Intelligent Information Hiding and Multimedia Signal Processing,IIHMSP2014』。該國際會議今年是第十屆,該會議所發表的文章將收入至IEEE Xplore 查詢系統(EI 索引內)。在本次的會議中被接受一篇文章以口頭(oral)方式進行發表,並安排在會議舉行期間(8/28)的 SessionF2:Intelligent Image and Signal Processing中發表。本次大會之所有論文皆經嚴格的審查處理,共有346篇投稿,最後僅有238篇論文通過審查並獲得刊登及收入在EI index 之內。所有被接受的論文皆以口頭報告。

本次會議也有另一國際會議『CARE2014』併入一同舉行,會議屬於IIHMSP2014有三個場地及屬於CARE2014會議有一個場地共四個 section 在同一時段進行報告,三天共有 40 場次。同時前兩天早上皆有 2 場 keynote speak.因場次相當多,分別有來自世界各地不同專家等在該相關領域的場次中聆聽及與報告者互相交換意見等。Keynote speak 由 Charles E. Perkins 教授講述『Redesigning the Future Mobile Internet: the whole world is going mobile』,Yao Zhao 教授講述『distributed/Multiple description Image and video coding』,Alessandro Piva 教授講述『Tracing back the processing history of multimedia content』,及 Isao Echizen 教授講述『Security and privacy challenges at border between cyber and physical worlds』。

此次 IIHMSP2014,我的論文在會議中是以口頭方式進行成果報告。安排在 8/28 下午 Section F2:Intelligent Image and Signal Processing, Prof. Wen-Yuan Chen 所主持的議場發表『Blurred image restoration using fast blur-kernel estimation』論 文。每人有 15min 左右時間進行口頭報告及 Q&A。報告者可以面對面的與與會 的相關資訊科技領域的專家、科技人才、學者及學生等進行研究交流。在會場巧 遇了多位同樣來自台灣的學者,大家同在會場中彼此交換參與會議與研究的心得 等。讓這次會議除了獲得眾多專業新知之外也被感親切萬分。

此次除了參加會議之外,由於本人報告的時間是 8/28 下午 3:20 的這個場次,當天早上亦隨同會議主持人勤益科技大學電資學院院長 Prof. Chen 一行人,參訪位於北九州市的-『九州工業大學』拜訪該校副校長-芹川聖一 教授及工學研究院電器電子工業研究所張力峰 教授。此次的參訪主要是勤益科技大學有意跟九州工業大學進行國際交流等合作事宜,而我們一行人陪同聽取合作項目,會後並參觀其校園。

圖一~五為大會開會地點: KICC: Kitakyushu International Conference Center,現場及報告時的照片。圖六-七九州工業大學參訪。圖八九州工業大學校園。本次會議主題主要議題有如下:

# Track I: Information Hiding and Security

- Watermarking: techniques, attacks, protocols, applications
- Steganography and steganalysis: techniques, protocols, applications
- Cryptography and cryptanalysis: techniques, protocols, applications
- Data authentication issues and access control themes
- Broadcast and public-key encryption
- Forensic analysis and tracing traitors
- Digital rights management and legal aspect
- RFID security and home network privacy
- Platform integrity and trusted computing

- Systems engineering and development for information hiding & security
- VLSI/ASIC/FPGA/SOC design and implementation for information hiding & security
- Enabling technologies and emerging standards for information hiding & security

# Track II: Multimedia Signal Processing and Networking

- Multimedia sensing and sensory systems
- Multimedia source coding and channel coding
- Multimedia signal analysis and visualization
- Multimedia signal mining and data fusion
- Multimedia networking and communication techniques (wired & wireless)
- Multimedia/multimodal signal interpretation and automatic recognition
- Multimedia databases and retrievals
- Multimedia hyperlink techniques and applications
- Advances in multimedia content description interfaces
- Advances in multimedia framework: (e.g. MPEG-21)
- Systems engineering and development for multimedia systems
- Enabling technologies and emerging standards for multimedia systems

# Track III: Bio-Inspired Multimedia Technologies and Systems

- Artificial neural networks for multimedia processing: models, learning paradigms, architectures, and implementations
- Fuzzy systems and evolutionary computing for intelligent multimedia processing
- Human-machine multimodal interaction: e.g. face/speech recognition, facial expression and emotion categorization, gesture analysis and recognition, etc.



圖一 開會地點1



圖三 報到處



圖四 現場報到



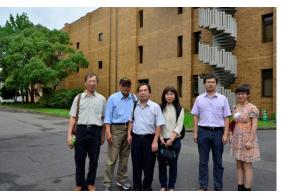
圖五 口頭報告



圖六 九州工業大學參訪 1



圖七 九州工業大學參訪



圖八九州工業大學校園

# 三、心得及建議事項

由於本次的會議是聯合眾多議題豐富了整個大會的內容,讓參與的專家學者獲得不同之科技技術及新知是相當有趣且難得的經驗。對我而言,如同以前出國參加國際會議一樣,不斷累積自己參與國際性會議的經驗更是拓展自己學術領域的機會,打開國際視野,提升自己在研究專長上能更具多樣性及應用性。

本次除了既定的會議行程之外,也隨同 Prof. Chen 教授一行人至以工業為主軸的工業大學參訪。讓我受益良多。

参加國際性會議除了既定的會意義議程之外,若主辦單位能在安排當地相關 大學的參訪或是該地方具有文化藝術地點的參觀,將可以讓與會專家學者獲得更 多實際的經驗亦可更深入瞭解該地方的歷史。對於這樣的方式,建議國內將來舉 行大型知名國際會議時,不妨可以列入建議之行程之中。讓遠道而來的學者專家 留下深刻的印象,既可達到學術交流也做了最佳的國民外交。

# 四、附件

部分會議議程資料如附件一。

# Program Book of

# IIH-MSP2014

The Tenth International Conference on Intelligent **Information Hiding and Multimedia Signal Processing** 

> August 27 ~ 29, 2014 Kitakyushu, Japan

















JSPS/NSGC/NRF S3Foresight Program "Ultra-realistic Accou Interactive Communication on next-generation Internet





# IIH-MSP2014 Welcome Message

Welcome to the 10<sup>th</sup> International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIH-MSP 2014) held in Kitakyushu, Japan on August 27-29, 2014. IIH-MSP 2014 is hosted by the Waseda University, Japan and technically co-sponsored by IEEE and National Kaohsiung University of Applied Sciences. It aims to bring together researchers, engineers, and policymakers to discuss the related techniques, to exchange research ideas, and to make friends.

We received a total of 346 papers and finally 238 papers are accepted after the review process. Three keynote speeches were kindly provided by Professor Isao Echizen, (National Institute of Informatics, Japan), on "Security and privacy challenges at border between cyber and physical worlds", Prof. Alessandro Piva (University of Florence, Italy), on "Tracing back the processing history of multimedia content" and Prof. Yao Zhao (Beijing Jiaotong University, China), on "Distributed/Multiple Description Image and Video Coding". All the above speakers are leading experts in related research area.

We would like to thank the authors for their tremendous contributions. We would also express our sincere appreciation to the reviewers, Program Committee members, and the Local Committee members for making this conference successful. Finally, we would like to express special thanks for IEEE, IEEE Tainan Section, IEEE Tainan Chapter of IEEE Signal Processing Society, Waseda University, National Kaohsiung University of Applied Sciences, International Society of Management Engineers, and JSPS/NSFC/NRF A3 Foresight Program "Ultra-realistic acoustic interactive communication on next-generation Internet" for their generous support in making IIH-MSP 2014 possible.

August 2014

Junzo Watada Akinori Ito Jeng-Shyang Pan Han-Chieh Chao Chien-Ming Chen

# **IIH-MSP 2015**

# The Eleventh International Conference on Intelligent Information Hiding and Multimedia Signal Processing

September 23-25, 2015 Adelaide, Australia http://bit.kuas.edu.tw/~iihmsp15/



# CALL FOR PAPERS AND PROPOSALS

Broadcast and public-key encryption Forensic analysis and tracing traitors

If the paper is not presented in the conference, the paper

IIH–MSP 2015, the eleventh International Conference on Intelligent Information Hiding and Multimedia Signal Processing, is technically co-sponsored by IEEE and Harbin Institute of Technology Shenzhen Graduate School and hosted by the University of South Australia.

Technology Shenzhen Graduate School and hosted by the University of South Australia.

Multimedia technologies facilitate the creation of global information infrastructure for acquiring, storing, communicating data with different forms. Proliferation of multimedia applications raises challenges such as multimedia soccurity and privacy, big data in multimedia intelligence in multimedia processing [IH-MPS] is an annual event serving as an international forum for researchers and practitioners from information hiding and multimedia processing to exchange latest research outcomes. We invite submissions of original research papers for the conference tracks: (1) Information Hiding and Security, (2) Multimedia Signal Processing and Retworking, and (3) Bio-inspired Multimedia Technologies and Systems. Topics of interest include, but are not limited to:

Track I: Information Hiding and Security

Watermarking: Iechniques, attacks, protocols, applications

Steganography and steganalysis: techniques, protocols, applications

Cryptography and cryptanalysis: techniques, protocols, applications

Data authentication issues and access control themes

Broadcast and public-key encryption

Forensic analysis and tracing trailors
Digital rights management and legal aspect
RFID security and home network privacy
Platform integrity and trusted computing
Systems engineering and development for information hiding & security
ASICIPPGA/GIGPU design and implementation for information hiding & security
Enabling technologies and emerging standards for information hiding & security
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Multimedia byperlink techniques and applications
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Multimedia by data

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Multimedia big data
Systems engineering and development for multimedia systems
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Pizzzy systems and evolutionary computing for intelligent multimedia processing
Human-machine mültimedia interaction: e.g. face-speech recognition, ficial
expression and emotion categorization, gesture-panalysis and recognition, etc.

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Yongjian Hu, South China University of Technology, China Ahmed Bouridane, Northumbria University, UK

Abhir Bhalerao, University of Warwick, Uk Zhe We, McMaster University, Canada

Huanqiang Zeng, Huaqiao University, China Mu-Song Chen, Da-Yeh University, Taiwan

August 27, 2014 (Wednesday) 9:30-10:20

Room I

Keynote 1

Charles E. Perkins, senior principal engineer IETE USA



Redesigning the Future Mobile Internet: The whole world is going mobile



## Abstract:

Technology marches forward and provides ever more useful (and complicated) wireless devices for our entertainment and profit. Handheld devices commonly have more storage and computing power than the roomful of equipment popularized as futuristic in so many science fiction movies. Even more impressive is the capacity for convenient wireless access to information around the world, at the click of a finger. And yet, the wireless revolution has just begun. Both licensed and unlicensed band communications have been growing at a prodigious rate, and, to the surprise of many industry experts, the IEEE 802 Wireless family now appears to be the dominant wireless family if measured by total traffic over the air. If measured by direct profit from subscribers, however, licensed-band cellular wireless channels have a tremendous advantage.

Users are confronted with a confusing array of applications, configuration choices, underlying technologies, pricing schedules, product features, and upgrade options. Unfortunately, it is often the case that applications that work on one radio technology may fail on another radio technology, or have prohibitive cost. More often than not, applications work differently or fail entirely depending upon the underlying operating system, but aside from this "bug", the only reason users typically care about the operating system is because of some perceived status imputed to it. That status is not really based on technology. We observe that these "bugs" are mostly built-in to the operating system, and vendors perceive that fixing such bugs would enable the customer to use competitive products. In other words, these bugs are seen as a way to segment the market, presenting a competitive advantage, forcing customers to choose one product that seems least inconvenient for the desired uses. This effect is even more prominent when considering uses for licensed-band communication technologies and products (i.e., smartphones for cellular networks).

There are several technology vectors that will work against this enforced market segmentation.

Quick review of Internet Mobility Management

- Early days and dreams
- Basics:
  - = identity management
  - = capability advertisement
  - = binding location address to routing address
  - = rerouting technology choices
  - = preserving the subnet fiction
- $^{\circ}$  Mobile IPv4, Mobile IPv6, Proxy Mobile IP, Seamoby, DMM

Future Internet Design directions (distributed mobility management in particular):

- "level" of mobility support (none, short
- term, medium, real-time)
- interactions between access domains
- $\hbox{-} \ Multipath \ considerations \\$
- Vehicular / Internet of Things
- $\dot{}$  Ownership of location information (hint, it's not owned by the NSA)

# Biography

Charles E. Perkins is a senior principal engineer at Futurewei,investigating mobile wireless networking and dynamic configuration

protocols, in particular LTE and various IEEE and IETF efforts. He is serving as document editor for the 802.21 group of the IEEE as well as chair for 802.21m, and is author or co-author of IETF standards-track documents in many working groups past

and present, currently including dmm, mip4, manet, and netext. Recently his technical endeavor has extended into leadership roles within the ONF working group investigating applications for SDN related to Wireless and Mobility. He is an editor

for several journals in areas related to wireless networking. He has continued strong involvement with performance issues related to Internet access for billions of portable wireless devices as well as activities for ad hoc networking and scalability.

- Multifunction / multiradio devices will dominate the market, and users will be frequently confronted by the abovementioned "bugs"
- Conservation of battery power remains crucial, motivating the dynamic selection of the closest access point as well as reductions in signaling requirements during idle times.
- The availability of "media-independent" protocols which can provide wireless communication and handover services that are not closely tied to the specific wireless technology.

Wireless devices naturally provide continuous opportunities for user mobility, and people love the freedom provided by radio communications. The natural feeling of freedom and convenience afforded by wireless Internet access has raised customer expectations, and one result will be the continued increase in the number of Internet access points. We can expect to see near-ubiquitous coverage of urban a reas by both licensed and unlicensed band radio access points, with the choice increasingly made by the user based on convenience, rather than dictated by application limitations or contract limitations.

Unfortunately, what seems natural to the user is not very naturally provided by traditional Internet protocols. As a result, there have been numerous attempts to provide a natural user experience with the assistance of the application. In particular, applications running on unlicensed band radio channels have been instrumented with features to help with handover from one access point (or base station) to the next. This trend has been driven particularly because of the lack of operating system support for mobility management. The result is that some applications can survive movement to new locations in the Internet, and other applications cannot. When the application does survive, the results are still quite variable, including temporary lock-up, request for reauthorization, loss of streaming video, and restarting transfers for files and webpages.

As new real-time applications (such as virtual reality) become popular, this handover behavior will increasingly be seen as amateurish and annoying. Application-based mobility management is typically different for each application, with different characteristics and surprises. Vendor-centric mobility management, as practiced in today's cellular networks, can respond somewhat more quickly, but is usually encumbered with accounting protocol gadgetry that limits performance. Moreover, suitable handover performance is strictly limited to the particular vendor's network.

It is the thesis of this presentation that wireless is the future of the Internet, and high-performance mobility management is crucial for enabling a satisfactory user experience. Just as we have become accustomed to beautiful imagery that was infeasible on the "web" of the 80's at 2400 baud, we will soon become to smooth and convenient streams of data uninterrupted by artifacts related to handovers.

August 27, 2014 (Wednesday) 10:50-11:40 Room I

Keynote 2 Professor Yao Zhao Beijing Jiaotong University, China

Topic:

Distributed / Multiple Description Image and Video Coding

# A1. ......

Multiple description coding (MDC) and distributed video

coding (DVC) are two novel techniques designed to address the problems of conventional image and video compression coding. MDC has emerged as an effective method for video transmission over unreliable and non-prioritized networks. It can effectively combat packet loss without retransmission, thus satisfying the demand of real time services and relieving the network congestion. DVC is a new video coding framework based on Slepian-Wolf and Wyner-Ziv theories, its main goal is to achieve low-complexity encoding to meet the demands of friendly uplink communication services, possibly at the expense of high-complexity dearling.

In the talk, we will first introduce the concept, the basic principle and implementation of the MDC and DVC. Then we will survey the state-of-the-art and analyze the challenging problems of the two techniques. Finally, we will present some relative works in our lab. Biography:

Yao Zhao received the B.S. degree from Fuzhou University, Fuzhou, China, in 1989, and the M.E. degree from Southeast University, Nanjing, China, in 1992, both from the Radio Engineering Department, and the Ph.D. degree from the Institute of Information Science, Beijing Jiaotong University (BJTU), Beijing, China, in 1996. He became an Associate Professor at BJTU in 1998 and became a Professor in 2001. From 2001 to 2002, he was a Senior Research Fellow with the Information and Communication Theory Group, Faculty of Information Technology and Systems, Delft University of Technology, Delft, The Netherlands. He is currently the Director of the Institute of Information Science, BJTU. His current research interests include image/video coding, digital watermarking and forensics, and video analysis and understanding. He is leading several national research projects from the 973 Program, 863 Program, and the National Science Foundation of China. He serves on the ditorial boards of several international journals, including as an Associate Editor of the IEEE Signal Processing Letters,



Area Editor of Signal Processing: Image Communication (Elsevier), and Associate Editor of Circuits, System, and Signal Processing (Springer). He was named a Distinguished Young Scholar by the National Science Foundation of China in 2010 and was elected as a Chang Jiang Scholar of Ministry of Education of China. He is a fellow of IET and a senior member of IEEE.

encrypted domain. He is now working to the development of multimedia forensic techniques. In the above research topics he has been co-author of more than 35 papers published in international journals and 100 papers published in international conference proceedings. He is lecturer for the course "Image Processing and Protection" of the Laurea Degree in Telecommunications Engineering of the University of Florence.

He is IEEE Senior Member, and he was IEEE Information Forensics and Security Technical Committee Member: he serves as Associate Editor of the, of the IEEE Trans. on Multimedia, of the EURASIP Journal on Information Security and of the LNCS Trans. on Data Hiding and Multimedia Security, and he served as AE of the IEEE Trans. on Information Forensics and Security and of IEEE Trans. on Circuits and Systems for Video Technology. He was Technical Co-Chair of IEEE MMSP2004, Program Co-Chair of 2nd ACM Workshop on Information Hiding and Multimedia Security (IH&MMSEC14), Publications Chair of IEEE WIFS 2013, co-Publications Co-Chair of IEEE ICASSP2014. He also was Co-Organizer of the First IEEE SPS Italy Chapter Summer School on Signal Processing, held on September 2013.

August 28, 2014 (Thursday) 8:30-9:20 Room I

Keynote 3 Professor Alessandro Piva University of Florence, Italy

Topic:

Tracing back the processing history of multimedia content

## Abstract

When observing an image or a video on a web site, often people do not realize that such media have undergone a long series of transformations before appearing in the current

Recovering the correct sequence of processing steps or, in short, the processing history of an image or a video, is an important task in multimedia forensics. A natural application is to verify whether the recovered history is consistent in different spatial or temporal portions of the same image or video, which can be a direct proof of manipulation of the original medium. The main challenge in audio, image and video processing history recovery is that one usually does not have access to the original media. Nevertheless, each of the processing operations usually leave a trace on the final signal. By tracking those traces, it is often possible to recover a sequence of processing steps, that, even if approximated, is still useful to reconstruct the actual processing history.

In this talk, the most useful traces that can be used for audio image and video processing history recovery, and the main forensic techniques that are based on them, will be described. Due to the ubiquitous diffusion of compressed audio files, images and videos, major focus will be given to traces relying on specific properties of the compression process.

## Biography:

Alessandro Piva received his Ph.D. degree in "Computer Science and Telecommunications Engineering" from the University of Florence on 1999. From 2002 until 2004 he was Research Scientist at the National Inter-university Consortium for Telecommunications (CNIT). Since 2005 he's with the Department of Information Engineering of the University of Florence.

His research interests lie in the areas of Information Forensics and Security, and of Image and Video Processing. In particular, he was interested in digital watermarking techniques for digital images and video sequences: then he studied new methods for signal processing in the

August 28, 2014 (Thursday) 9:20-10:10 Room I

Keynote 4
Professor Isao Echizen
National Institute of Informatics, Japan

Topic:

Security and privacy challenges at border between cyber and physical worlds



# Abstract:

Due to developments of the Internet of Things, computers, sensors and their networks are located in all places, and useful services can now be received at all times and in all spaces of our lives. On the other hand, however, there is now the actual problem at border between cyber and physical worlds that personal and confidential information is easily shot and shared in a second as a result of the popularization of portable terminals with built-in cameras and other sensors. So far conventional IT security and privacy focus on cyber world. Establishing security and privacy countermeasures are now essential requirements at border between cyber and physical worlds.

In this talk, our security challenges for overcoming analog-hole problems: techniques to prevent unauthorized copying of screens and displays utilizing the difference the differences in spectral sensitivity characteristics between human beings and imaging devices will be described. Our recent privacy challenges for preventing privacy invasion through face detection from camera images through the use of a device (Privacy Visor) worn on the face that appends noise to photographed images which makes faces in images undetectable without affecting human visibility. For each challenge, testing of a prototype are shown through fruitful demonstrations.

Biography:

Isao Echizen received B.S., M.S., and D.E. degrees from the Tokyo Institute of Technology in 1995, 1997, and 2003. He joined Hitachi, Ltd. in 1997 and until 2007 was a research engineer in Hitachi's Systems Development Laboratory. He is currently a professor at the National Institute of Informatics (NID). He was a visiting professor at the University of Freiburg in 2010 and a visiting professor at the University of Freiburg and the University of Halle-Wittenberg in 2011. He is currently conducting research in the fields of content security and privacy and of multimedia application systems. He received the President's Technology Award from Hitachi in 2000, the Best Paper Award from the Information Processing Society of

# Aug. 28 (Thurs)

08:30~9:20	Keynote 3 (Room K1)	1)		
	Tracing Cack the processing history of multimedia content Professor Alessandro Piva, University of Florence Session Chair:	istory of multimedia content iversity of Florence		
9:20~10:10	Keynote 4 (Room K1)	1)		
	Security and privacy challenge	Security and privacy challenges at Corder Cetween cyCer and physical worlds	l physical worlds	
	Professor Isao Echizen, National institute of informatics Session Chair:	nal institute of informatics		
10:10~10:30	Coffee Break			
10:30~12:00	Oral Session D1	Oral Session D2	Oral Session D3	CARE 2014
	Signal Processing Methods for	Cross-discipline Techniques in	Multimedia Services and Security	(Room D4~D5)
	Music Information Retrieval in the	Signal Processing and Networking		
12:00~13:30	Lunch			
13:30~15:20	Oral Session E1	Oral Session E2	Oral Session E3	CARE 2014
	Technologies for Speech	Intelligent Video Processing	SYSTEM-ON-CHIP FOR SIGNAL	(Room E4~E5)
	Communication in the future Internet		PROCESSING	
15:20~15:40	Coffee Break			
15:40~17:10	Oral Session F1	Oral Session F2	Oral Session F3	CARE 2014
	3D Spatial Audio Technologies in	Intelligent Image and Signal	IPv6 Applications and Services	(Room F4~F5)
16.30	Going Rue Departure	Pilocessing		
17:30	Going Bue Departure			
200				
17:00~20:00	Banquet			
18:20	Return Bus Departure			
20:20	Return Bus Departure			

Japan (IPSJ) in 2005 and 2014, the Best Paper Award at IEEE IHMSP in 2006, the Fujio Frontier Award and the Image Electronics Technology Award in 2010, and the IPSJ Nagao Special Researcher Award in 2011. In addition, his paper was named "One of the Best Papers"

He is an editorial board member of the Journal of Business & Information Systems Engineering (Wirtschaftsinformatik) and of the Journal of Innovation in Digital Ecosystems, Elsevier, and an associate editor of Multidimensional Systems and Signal Processing, Springer. He is a guest editor in chief of the Special issue on Enriched Multimedia, IEICE Transactions on Information and Systems, and a guest editor of the Special issue on Secure Communications, Telecommunication Systems, Springer. He is a WG Secretary of IFIP

TC8-information systems: WG8.4 E-Business Information Systems: Multi-disciplinary research and practice.

He served as a conference co-chair of IIHMSP 2013, program co-chair of IFIP ICT-EURASIA 2014, IIHMSP 2010, and IWSEC 2010, publication co-chair of IWSEC 2007, 2008, 2009, and CANS 2009, and as local arrangement chair of IFIP I3E 2008. He also served as a program committee member for numerous conferences, including those of the ACMMM, ICME, AINA,

at IFIP SEC 2011.

and ASIPA.

# Aug. 29 (Fri)

08:30~10:00	08:30~10:00 Oral Session G1	Oral Session G2	Oral Session G3	CARE 2014
	Intelligent Multimedia Tools and	intelligent Multimedia Tools and Security and Privacy in Computer   New Advances in Communication   (Room G4~G5)	New Advances in Communication	(Room G4~G5)
	Applications (1)	Forensics Applications	and Multimedia Security (1)	
10:00~10:20	10:00~10:20 Coffee Break			
10:20~11:40	10:20~11:40 Oral Session H1	Oral Session H2	Oral Session H3	
L	Intelligent Multimedia Tools and	Intelligent Multimedia Tools and Ergonomic Information and Control New Advances in Communication	New Advances in Communication	
72	Applications (2)	Systems	and Multimedia Security (2)	
10:20~12:00	.0:20~12:00 Oral Session H4	Oral Session H5		-
L	Intelligent and Multimedia	Session 13: Network Testbed and		
Υ	Computing for Real-Life	Industrial Control System Security		
,	Annlications	(		

		Floor 2F		Floor 3F
Indication	Room 1	Room 2	Room 3	Rooms 4 & 5
	Keynote			
	Session A1	Session A2	Session A3	Sessons A4 & A5
	Session B1	Session B2	Session B3	Sessons B4 & B5
	Session C1	Session C2	Session C3	Sessons C4 & C5
	Session D1	Session D2	Session D3	Sessons D4 & D5
	Session E1	Session E2	Session E3	Sessons E4 & E5
	Session F1	Session F2	Session F3	Sessons F4 & F5
	Session G1	Session G2	Session G3	Sessons G4 & G5
	Session H1	Session H2	Session H3	Sessons H4 & H5

# Aug. 27 (Wedn)

IIH-MSP 2014 Conference Program

08:60~00:60	Opening			
09:30~10:20	Keynote 1 (Room K1) Redesigning the Future MoCile Internet The whole world is Charles E. Perkins, Senior Principal Engineer at Futureweil Session Chair.	Keynote 1 (Room K1) Redesigning the Future McCile Internet The whole world is going moCile Casalose. E Perkins, Senior Principal Engineer at Futurewei Session Chalir:	ing moCile	
110:20~10:50	110:20~10:50 Coffee Break			
10:50~11:40	10:50~11:40   Keynote 2 (Room K1)	1)		
	DistriCuted / Multiple Description Image and Video Coding Professor Yao Zhao, Beijing Jiaotong University, China	ion Image and Video Coding actong University, China		
11:40~13:20	Lunch			
13:20~15:10	Oral Session A1	Oral Session A2	Oral Session A3	CARE 2014
	Advanced Multimedia Processing and Retrievals	Information Processing	Applying Histogram Modification to (Room A4~A5) EmCed Secret Message in AMCTC	(Room A4~A5)
15:10~15:30	15:10~15:30 Coffee Break			
15:30~17:20	15:30~17:20 Oral Session B1	Oral Session B2	Oral Session B3	CARE 2014
	Recent Advances in RoCust Information Hiding against Print- Scan Process	Recent Advances in Information Hiding and Enrichment Technologies for Audio and Speech Signals	Network Technology	(Room B4~B5)
17:20~17:40	17:20~17:40 Coffee Break			
17.40~19.30	17.40~19.30 Oral Coccion C1	Charles Coccion	Oral Coccion C3	CARE 2014

- 13:30~15:20 Session E3: SYSTEM-ON-CHIP FOR SIGNAL PROCESSING
  - Session Organizers: Prof. Ming-Hwa Sheu
    E3-01 "Hardware and Software Co-design of the Moving Object Tracking System" by Yeu-Horng Shiau, Cheng-Han Li, Zhi-hao Wang and Yi-Tai Guo
  - "Low-Cost and Low-Complexity Electrocardiogram Signal Recorder Design Based on Arduino
  - E3-02 "Low-L ost and Low-L omplexity electrocardiogram Signal Recorder Design Based on Ardunio Platform" by Shin-Chi Lai, Wen-Chih Li, Sin-He You, Da-Wei Zhuang and Shih-Ting Gao

    E3-03 "A Novel Coherence-Function-based Noise Suppression Algorithm by Applying Sound-Source Localization and Awareness-Computation Strategy for Dual Microphones" by Shin-Chi Lai, Hsu-Cheng Lai, Feng-Chung Hong, Huan-Ru Lin and Sheau-Fang Lei

    E3-04 "High Dynamic Range Image Based on Block-Based Edge Strength for Embedded System Design"

  - by Wen-Kai Tsai, Chang-Jie Lai, Ming-Hwa Sheu and Tsu-Hsiung Chen "Ultra Low Power Circuit Design Based on Adiabatic Logic" by Chi-Chia Sun, Cheng-Chih Wang E3-05 and Ming-Hwa Sheu
    E3-06 "Real-time text detection using PAC/DUE embedded system" by Shih-Chang Hsia, Cheng-Nan Ho

  - and Chien-Hung Liu
    E3-07 "Feature Points Based Video Object Tracking for Dynamic Scenes and Its FPGA System
    Prototyping" by Yin-Tsung Hwang, Bing-Cheng Tsai, Yu-Ting Pai and Ming-Hwa Sheu
- 15:40~17:10 Session F1: 3D Spatial Audio Technologies in the Future Internet
  - Session Organizers: Prof. Yoiti Suzuki, Prof. Li Junfeng and Prof. Seong-Cheol Kim
  - F1-01 "Virtual Auditory Display by Remote Rendering Via Computer Network" by Yukio Iwaya, Makoto
    Otani, Takao Tsuchiya and Junfeng Li
    F1-02 "Effect of Interaural difference for localization of spatially segregated sound" by Daisuke Morikawa

  - F1-03 "Representation of individual HRTFs using weighting coefficients of SENZI" by Shuichi Sakamoto, Yoshiki Satou, Jorge Trevino and Yotit Suzuki F1-04 "Feasibility Study for Objective Measurement on Sound Localization Using Auditory Evoked
  - Tosiniki Satou, Jorge Tevino and Totti Suzuki "Feasibility Study for Objective Measurement on Sound Localization Using Auditory Evoked Potential" by Chan Jun Chun, Seok Hee Jeong, Jong Won Shin, Hong Kook Kim and Jin Ah Kang
  - F1-05 "Auralization of musical instruments in virtual halls considering source directivity" by Park
  - Kyoungsoo, Jeong-Hun Seo, Kim JeungHun and Cheon Sung Jun
    F1-06 "On the Performance and Robustness of Crosstalk Cancelation with Multiple Loudspeakers" by Xing
    Yang, Risheng Xia, Zhonghua Fu, Junfeng Li, Yonghong Yan, Shuichi Sakamoto and Yoiti Suzuki
- 15:40–17:10 Session F2: Intelligent Image and Signal Processing
  Session Organizers: Prof. Wen-Yuan Chen
  F2-01 "Based on the texture analysis to inspect the tread worm status on the tire" by Shih-Yen Hung and You-Jvun Svu
  - F2-02 "Blurred Image Restoration using Fast Blur-kernel Estimation" by Hui-Yu Huang and Wei-Chang
  - Tsai
    "The Cleaning Machine Path Design Using Image Recognition Techniques" by Wen-Yuan Chen,
    Shih-Sung Cheng, Ching-Te Wang, Chin-Fu Tsai and Chiou-Kou Tung
    "Particle Swarm Optimization Enhancement by Applying Global Ratio Based Communication
    Topology" by Ruey-Maw Chen and Hua-Tsun Huang F2-03

  - F2-05 'A Modified K-means Algorithm - Two-Layer K-means Algorithm" by Chen-Chung Liu, Shao-Wei Chu, Yung-Kuan Chan and Shyr-Shen Yu
  - "License Plate Location System Using Smart-Phone with G-Sensor" by Chuin-Mu Wang, Jian-De F2-06 Hong, Geng-Cheng Lin, Jing-Yuan Su and Zhe-Fu Lin
- 15:40-17:10 Session F3: IPv6 Applications and Services
  Session Organizers: Dr. Shian-Shyong Tseng and Dr. Ching-Heng Ku
  F3-01 "Building an IPv6 Virtual Lab with the Multi-level Training Mechanism" by Shian-Shyong Tseng,
  - Ching-Heng Ku, Ai-Chin Lu, Jun-Ming Su and Geng-Da Tsai F3-02 "An Enhancement of IPv4-in-IPv6 Mechanism" by N. Chuangchunsong, S. Kamolphiwong, T. Kamolphiwong and R. Elz

  - Kamopinwong and K. Etz
    F3-03 "A light-weight penetration test tool for IPv6 threats" by Gu-Hsin Lai
    F3-04 "Design and Implementation of Health Monitoring System for Solar Panel in IPv6 Network" by Wen
    Yen Lin, Kuang-Po Hsueh, Wang-Hsin Hsu, Liew Gha Yie and Wei-Chen Tai

- F3-05 "Ontology-based Anti-threat Decision Support System for IPV4/IPV6" by Shian-Shyong Tseng, Jui-Feng Weng, Li-Ling Hu and Hsu Nai-Wen F3-06 "Modification of Disparity Vector Derivation from Neighbouring Blocks in 3D-HEVC" by Yu-Xin
- Song and Ke-Bin Jia

# Aug. 29 (Fri.)

- 08:30~10:00 Session G1: Intelligent Multimedia Tools and Applications (1)
  - F-10:00 Session G1: Intelligent Multimedia Tools and Applications (1) Session Organizers: Or Ran-Zan Wang and Dr. Wen-Pinn Fang G1-01 "Bezier Curve-Based Tour Generator for Navigation in Google Earth-Based Virtual Campus" by Jen-Perng Yu, Jyh-Jong Lin, Met-Chen Chu and Yuh-Hwa Pai G1-02 "Eye Tracking for Analyzing Applied Effects on Instructional Graphics Directing Visual Attention" by Hui-Hui Chen, Bor-Jiunn Hwang, Chiao-Wen Kao, Hung-Sheng Lai and Shih-Yu Huang

  - G1-03 "Applying Media Richness Theory to Essay Writing Instruction . A Case of an Elementary School" by Shyi-Huey Wu, Bor-Jiunn Hwang, Ya-Ping Fan and Ching-Hui Chen
    G1-04 "A Dead-Reckoning Positioning Scheme Using Inertial Sensing for Location Estimation" by Yih-
  - Shyh Chiou, Fuan Tsai and Sheng-Cheng Yeh

  - Silvi Chindy, Tukan Fasa diud osheng-cheng, Tedy G1-05 "High-payload lossless data hiding scheme with block statistics characteristics" by Shang-Kuan Chen, Ran-Zan Wang and Wen-Pinn Fang G1-06 "Dtat Transmission System for Mobile Device by Audio Hiding approach" by Wen-Pinn Fang, Ran-Zan Wang, Tzu-Hsuan Liao, Shang-Kuan Chen and Yeuan-Kuen Lee
- 08:30-10:00 Session G2: Security and Privacy in Computer Forensics Applications
  Session Organizers: Dr. Chia-Chen Lin and Dr. Chuan Qin
  G2-01 "A Webpage Data Hiding Method by Using Tag and CSS Attribute Setting" by Yung-Chen Chou
  - and Hsin-Chi Liao G2-02 "Transmissions for Delay-Guaranteed Information using Smart Antenna Systems" by Li-Ling Hung,

  - G2-402 "Transmissions for Delay-Guaranteed Information using Smart Antenna Systems" by Li-Ling Hung,
    Yu-Wei Huang and Sheng-Han Wu
    G2-03 "Tampering Detection and Content Recovery for Digital Images Using Halftone Mechanism" by
    Shanshan Yang, Chuan Qin, Zhenxing Qian and Boqing Xu
    G2-04 "Novel Image Authentication Scheme for AMBTC-compressed Images" by Chia-Chen Lin,
    Yuehong Huang and Wei-Liang Tai
    G2-05 "A Novel Reversible Data Hiding Scheme Using Ripple Strategy and Histogram Shifting" by YungChen Chen Chen Chen Change Change In Strategy and Histogram Shifting" by Yung-
  - Chen Chou, Huang-Ching Lee and Yong-Jin Yu
- 08:30~10:00 Session G3: New Advances in Communication and Multimedia Security (1)
  - Session Granizers: Prof. Qiong Li,
    G3-01 "Flexible Quantum Image Secret Sharing Based on Measurement and Strip" by Xianhua Song, Shen
    Wang, Jianzhi Sang, Xuehu Yan and Xiamu Niu
    G3-02 "A FPGA-based Design of Efficient QKD Sifting Module" by Qiong Li, Zhibin Lin, Dan Le and

  - Hucheng Liu G3-03 "Equivalence proof of two (2, n) progressive visual secret sharing" by Xuehu Yan, Shen Wang and
  - G3-04 "A FPGA-based Communication Scheme of Classical Channel in High-speed OKD system" by

  - G3-04 A PTGA-based Communication Scheme of Classical Channel in High-speed QKD system" by Qiong Li, Siyou Ma, Haokun Mao and Lin Meng
    G3-05 "Spam Detection Approach Based on C-Support Vector Machine and Kernel Principal-Component Analysis" by Shu Geng, Liu Lv and Rongjun Liu
    G3-06 "A Method to Generate Random Number for Cryptographic Application" by Xiamu Niu, Yongting Wang and Di Wu
- 10:20~11:40 Session H1: Intelligent Multimedia Tools and Applications (2)
  - Session Organizers: Dr. Ran-Zan Wang and Dr. Wen-Pinn Fang
    H1-01 "Video Resizing for Mobile Device" by Wen-Pinn Fang, Ming-Hao Liu, Yeuan-Kuen Lee and Rei-Heng Cheng