



KOREAN SOCIETY FOR INTERNET INFORMATION

*APIC-IST & ICONI 2009, December 17 -21
NUSA DUA (Bali), Indonesia*

Final Program

| Host by |

Korean Society for Internet Information (KSII)
Korea Institute of Science and Technology Information (KISTI)

| Sponsored by |

Korea Internet and Security Agency (KISA)
Korea Electronics Technology Institute (KETI)

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Message from General Chair

It is my great pleasure to welcome you to the Asia Pacific International Conference on Information and Technology 2009 (APIC-IST 2009) and the International Conference on Internet 2009 (ICONI 2009) in Nusa Dua (Bali), Indonesia on December 17-21, 2009. We are very fortunate to have so many talented and well recognized people involved in the process of submitting papers, chairing sessions, and reviewing papers. We also feel grateful for the support we received from Korean Electronics Technology Institute (KETI) and Korea Internet and Security Agency (KISA).



This year's joint conference again received a large number of high-quality submissions. This was attributed to the very strong conference committee that worked so hard to make the conference advertisement reach so many people in the world. Also strong commitment of many of the session chairs was outstanding. After the submission deadline, they worked very hard with their committee members to turn around a very high standard review that led to the strong conference program before you.

We are very proud of the conference program we have and assure you that you will find it very interesting, informative, and inspiring. Besides the conference sessions, we have two high-profile keynote speakers. I invite you to attend and communicate with the keynote speakers as they are all distinguished in their fields.

In addition, you can have chance to relax and recharge your batteries for your research here at Nusa Dua. The city of Nusa Dua where APIC-IST & ICONI 2009 are held is an international resort located in the southern east of Bali and famous for its beautiful sceneries. The name of the island, Nusa Dua, comes from the shape of this place where two islands are connected by a reef resembling peninsula. Nusa Dua is surrounded by coral reefs and the wind is soft that you can enjoy swimming and several sea sports.

Again, I would like to express my sincere appreciation for the committee members' and the referees' contributions to help us prepare the event. I thank the Program Committee and the Committee Chair Prof. Hyunseung Choo and Mr. In Hur for their hard work and support. Also, I must thank all the authors for the papers on their precious achievements. I have no doubt of successful APIC-IST & ICONI 2009, and I hope you will enjoy both the technical excellence during the sessions and the recreational content at the beautiful landscapes of Nusa Dua. Lastly, I hope that your stay in Indonesia will be a pleasant and memorable one.

Yongwan Koo
General Chair
APIC-IST & ICONI 2009

Message from Program Committee Chair

I would like to welcome to APIC-IST & ICONI 2009! It is a great pleasure to host this conference in Nusa Dua (Bali) which is one of the most popular and market resort in the world.

APIC-IST & ICONI 2009 is a KISA and KETI-sponsored annual conference providing an open forum for researchers, engineers, policy makers, network planners, and service providers in telecommunications. Extensive exchange of information will be provided on newly emerging systems, standards, regulations, services, and variety of applications in the area of Systems and telecommunications. APIC-IST & ICONI 2009 consists of 2 keynote speeches by remarkable world experts, 10 oral sessions, and 2 poster sessions.



This year's program is extremely strong, and the review process was very competitive and rigorous. We received 208 submissions from many countries around the world. As a result of careful review process, we selected 99 papers to be presented in the oral and poster sessions. The papers will be presented in 12 sessions, and they cover a number of fascinating topics, including Software Architecture & Algorithms, Intelligent System, Internet Security, Green Computing & Internet, Internet-Based Service and Applications, Digital Convergence, Mobile Networks, Mobility & Communications, Wireless Networks & Telecommunication, Ubiquitous Computing & Techniques, and Next-generation Networks. Furthermore, the program includes distinguished keynote speeches and an interesting discussions with poster presenters.

We are grateful to all of the authors, reviewers, and members of the program committee for their considerable efforts and contributions. Handling of submission and review of papers could not have been completed without their helps and cooperation. We also appreciate the enthusiastic effort by session chairs who accept our request to manage sessions of the conference.

We hope these sessions will help you obtain better insights into the latest trends and directions for the competitive communications and Internet markets. We believe that APIC-IST & ICONI 2009 will provide an abundance of intelligent debate and information exchange, and a look at what is new in the field and technology.

We thank the Steering Committee and the General Chair Yongwan Koo for their support and help. Thank you everyone who has contributed to the program – the authors, the reviewers, the program committee members and other organizing committee members for their terrific works. I wish you a productive and enjoyable conference.

Hyunseung Choo
Program Committee Chair
APIC-IST & ICONI 2009

Committee

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| Co-General Chairs |

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Youngsuh Park *KISTI, Korea*
Pyungrak Choi *KETI, Korea*

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Jeongik Min *IBM, Korea*
Kyu-Seok Park *Kyungnam University, Korea*
Kyeung-Hak Seo *KETI, Korea*
Dongkyoo Shin *Sejong University, Korea*
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Athanasios Vasilakos *University of Western Macedonia, Greece*
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Vyacheslav Zalyubovskiy *Sobolev Institute of Mathematics, Russia*
Lin Zhang *Tsinghua University, China*
Yan Zhang *Simula Research Laboratory, Norway*

Program at a Glance

| December 18, 2009 (Friday) |

	Room A	Room B
08:30-	Registration Open	
09:00-10:30	Session 1: Software Architecture & Algorithms	Session 2: Intelligent System
10:30-10:45	Coffee Break	
10:45-12:15	Session 3: Internet-Based Service and Applications	Session 4: Green Computing & Internet
12:15-12:45	Opening Ceremony	
12:45-14:15	Lunch	
14:15-15:45	Session 5: Wireless Networks & Telecommunication with Keynote Speech 1 (Dr. Jonggyu Lee)	
15:45-16:45	Coffee Break & Poster Session 1: Telecommunication & Next-generation Networks	

| December 19, 2009 (Saturday) |

	Room A	Room B
08:30-	Registration Open	
09:00-10:30	Session 6: Mobile Networks	Session 7: Digital Convergence
10:30-10:45	Coffee Break	
10:45-11:45	Session 8: Mobility & Communications	Session 9: Internet Security
12:00-12:45	Keynote Speech 2 (Prof. Hsiao-Hwa Chen)	
12:45-14:15	Lunch	
14:15-15:45	Session 10: Ubiquitous Computing & Techniques	
15:45-16:45	Coffee Break & Poster Session 2: Ubiquitous Computing & Digital Convergence	
18:00-20:30	Gala Dinner	

Keynote Speakers



Friday, 18 December 2009, 14:15 – 15:45

Jonggyu Lee

Director, Seoul Development Institute, South Korea

R&BD Policies and ICT Projects in Metropolitan SEOUL

Director, Seoul Research and Business Development Center, Seoul Development Institute (present)

Director, Department of Urban Management, SDI (fomer)

Research Fellow, Korea Research Institute for Human Settlements (fomer)

Ph'D in Planning, Univ. of Southern California, USA



Saturday, 19 December 2009, 12:00 – 12:45

Hsiao-Hwa Chen

Full Professor, National Cheng Kung University, Taiwan

e-Health R&D Activities

Hsiao-Hwa Chen is currently a full Professor in Department of Engineering Science, National Cheng Kung University, Taiwan, and he was the founding Director of the Institute of Communications Engineering of the National Sun Yat-Sen University, Taiwan. He received BSc and MSc degrees from Zhejiang University, China, and Ph.D. degree from University of Oulu, Finland, in 1982, 1985 and 1990, respectively, all in Electrical Engineering. He has authored or co-authored over 300 technical papers in major international journals and conferences, five books and several book chapters in the areas of communications, including the books titled Next Generation Wireless Systems and Networks (512 pages) and The Next Generation CDMA Technologies (468 pages), both published by John Wiley and Sons in 2005 and 2007, respectively. He has been an active volunteer for IEEE various technical activities for over 20 years. Currently, he is serving as the Chair of IEEE ComSoc Radio Communications Committee, and the Vice Chair of IEEE ComSoc Communications & Information Security Technical Committee. He served or is serving as symposium chair/co-chair of many major IEEE conferences, including VTC, ICC, Globecom and WCNC, etc.

He served or is serving as Associate Editor or/and Guest Editor of numerous important technical journals in communications. He is serving as the Co-Editor-in-Chief of KSII Transactions on Internet and Information Systems, the Chief Editor (Asia and Pacific) for Wiley's WIRELESS COMMUNICATIONS AND MOBILE COMPUTING (WCMC) Journal and Wiley's INTERNATIONAL JOURNAL OF COMMUNICATION SYSTEMS, etc. He is the founding Editor-in-Chief of Wiley' SECURITY AND COMMUNICATION NETWORKS journal (www.interscience.wiley.com/journal/security). He is also an adjunct Professor of Zhejiang University, China, and Shanghai Jiao Tong University, China. Professor Chen is a recipient of the Best Paper Award in IEEE WCNC 2008.

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Conference Program

| 09:00-10:30, Fri, December 18, 2009 |

Session 1: Software Architecture & Algorithms (Room A)

09:00-10:30, Fri, December 18, 2009

Chair: Prof. You-Sik Hong

1-1	Concatenated Signature-based Indexing Scheme and Similarity Measure Algorithm using Temporal and Spatial Features in Spatial Road Networks Kyoung-Jong Kim, Chun-Bo Sim, Chang-Sun Shin(Sunchon National Univ.), and Kang Soo You(Jeonju Univ.)
1-2	On Evaluating JARS: Job History-based Adaptive Grid Resource Selection Cinyoung Hur and Yoonhee Kim(Sookmyung Women's Univ.)
1-3	An Efficient Load Balancing scheme in Virtual Server-based DHT systems Byunggyu Park, Xuan Tung Hoang, and Younghee Lee(KAIST)
1-4	A Study of Adaptive Social Network Service Based on Mash-up of Ontology and Open API Su-Kyoung, Kim and Ho-Jin Choi(KAIST)
1-5	Experimental Study to Improve Resource Utilization and Performance of Cloud Systems based on Grid Middleware Hyukho Kim, Woongsup Kim, Kangwoo Lee(Dongguk Univ.), Gregory B. Newby(University of Alaska Fairbanks), and Yangwoo Kim(Dongguk Univ.)
1-6	Design and Implementation of a Fault Tolerant Computing Platform for Service Robots Heejune Ahn(Seoul National Univ. of Technology) and Sang Chul Ahn(KIST)

Session 2: Intelligent System (Room B)

09:00-10:30, Fri, December 18, 2009

Chair:

2-1	Adaptive User Profile Management for Community-based Question Answering System Kigon Lyu, Jungyong Lee, Hyeoncheol Kim, and Heuseok Lim(Korea Univ.)
2-2	A Connectionist Model of Korean Visual Word Recognition Kinam Park, Soonyoung Jung, and Heuseok Lim(Korea Univ.)
2-3	Design of Intelligent Driving System based on Physics Engine Taehyun Kim and Dongkyoo Shin, and Dongil Shin(Sejong Univ.)
2-4	Behavior Pattern Prediction Algorithm Based on User Profile in Ubiquitous Home Network Wonjoon Kang, Dongil Shin, Dongkyoo Shin, Wonjoon Kang, Dongil Shin, and Dongkyoo Shin(Sejong Univ.)
2-5	Opinion Mining for Comments on News Articles on the Web Jae-Hoon Kim(Korea Maritime Univ.), Kong Joo Lee(Chungnam National Univ.), Hyung-Won Seo, and Hyung-Chul Kim(Korea Maritime Univ.)
2-6	Topic Maps Selection and Matching based on Topic Characteristics Analysis Jung-Min Kim(Daejin Univ.), Hyun-Sook Chung(Chosun Univ.), and Guk-Boh Kim(Daejin Univ.)

Conference Program

| 10:45-12:15, Fri, December 18, 2009 |

Session 3: Internet-Based Service and Applications (Room A)

10:45-12:15, Fri, December 18, 2009

Chair:

3-1	AHP-Based Quality Centric Architecture Evaluation Methodology Jung-Been Lee, Dong-Hyun Lee, Neung-Hoe Kim, and Hoh Peter In(Korea Univ.)
3-2	A Study on a Standard Establishment Re-Thesis Necessity of Software Quality evaluation Methodology KyungSang Sung(CST. Ltd.), Inhwa Choi(Seoul Women's Univ.), JaeYoung Choi(Kyungwon Univ.), and Jun Hwang(Seoul Women's Univ.)
3-3	A Novel Approach to Generate Test Cases from UML Activity Diagram based on Active Message Inwha Choi(Seoul Woman's Univ.), KungSang Sung(CST Co., Ltd.), YoungJu Choi(ISET Co., Ltd.), Jun Hwang(ISET Co., Ltd.), SaetBeeol Yu, Jaeho Lee, and WoongJae Lee(Seoul Woman's Univ.)
3-4	Program Readability: A Proposed Software Metric Paul S. Fisher, Jinsuk Baek(Winston-Salem State Univ.), and Minho Jo(Korea Univ.)
3-5	Toward Utilization of Software Configuration Management Metrics into Software Process Measure Byong Gul Lee, Bo Yoon Choi(Seoul Women's Univ.), and Hyuk-Soo Han (Sang Myung Univ.)
3-6	Region Restoration for Complex Object of Asterias Amurensis using Structural Features Young-Cheol Jeon, Jong-Ik Kim, Jun-Ki Choi, Hyung-Gwan Lee, Young-Soo Park, Sam Cha, Do-Hong Jeon, and Sung-Rak Kim(Kwandong Univ.)

Session 4: Green Computing & Internet (Room B)

10:45-12:15, Fri, December 18, 2009

Chair:

4-1	Developing of a Dedicated Collision Avoidance Algorithm for Indoor Active RFID Tracking System Sekyung Han(The Univ. of Tokyo), Yeonsuk Choi(Hoseo Univ.), Masayuki Iwai, and Kaoru Sezaki(The Univ. of Tokyo)
4-2	Semantic Grid Middleware System for Effective Scheduling and Monitoring Services based on Multi Dimension Semantic Information Hyung-Lae Kim, Byong-John Han, and Chang-Sung Jeong(Korea Univ.)
4-3	Design of Optimal Green Time by Fuzzy Control simulator Jae Pil Chung(Gachon Univ. of Medicine and Science) You-Sik Hong(Sangji Univ.), and Sang Yep. Nam(Kookje College)
4-4	Effective Edge Selection for Graph-based Image Segmentation on Mobile SeokHoon Kang(Univ. of Incheon) and JongHo Baek(TecAce Solutions, Inc.)
4-5	Efficient Classification Algorithm for Microarray Data Storage Based on Structural Similarity among MAGE-ML Elements Jonghan Yun, Jaewan shin, Dongkyoo Shin, and Dongil Shin(Sejong Univ.)
4-6	Applying Reputation and Trust Model to Online Internet Transactions Sanguk Noh(The Catholic Univ. of Korea)

Conference Program

| 14:15-15:45, Fri, December 18, 2009 |

Session 5: Wireless Networks & Telecommunication (Room A)

14:15-15:45, Fri, December 18, 2009

Chair:

5-1	BotXrayer : Exposing Botnets by Visualizing DNS Traffic Inhwan Kim, Hyunsang Choi, and Heejo Lee(Korea Univ.)
5-2	Mobility Detection-Based Deep Packet Inspection (DPI) Architecture for Tracking Malicious Users in IEEE 802.16e/WiBro Networks Myoungrak Lee, Donghyun Lee(Korea Univ.), Byungsik Yoon, Song in Choi(ETRI) and Hoh Peter In(Korea Univ.)
5-3	A New Clock-Controlled Generator : Switching Generator Dukjae Moon, Jun Choi, and Seokhie Hong(Korea Univ.)
5-4	Secure 6LoWPAN Mobility Support Scheme Employing PMIPv6 Sang-Ho Na, Eui-Nam Huh, Aymen Al-Saffar(KyungHee Univ.), Seung-Teak Lee, and Hyun-Ho Choi(NIA)
5-5	Deep Packet Inspection Architectures for the IEEE 802.16e Wireless Networks and Performance Evaluation Myoungrak Lee, Donghyun Lee(Korea Univ.), Byungsik Yoon, Song in Choi(ETRI), and Hoh Peter In(Korea Univ.)

Conference Program

| 09:00-10:30, Sat, December 19, 2009 |

Session 6: Mobile Networks (Room A)

09:00-10:30, Sat, December 19, 2009

Chair: Prof. Sang-Sun Lee

6-1	Address Auto-configuration Method of Interworking Mobile Ad-hoc Networks Kyou Ho Lee(Inje Univ.), Sun Hwa Kim(Segifuture, Co. Ltd.), and Won Ick Jang(ETRI)
6-2	Seamless Handoff Support Scheme by Using Multicast Group and Packet Caching in PMIPv6 Hyunwoo Hwang, Ju-Hyun Kim(Sejong Univ.), Sang-Yep Nam(Kookje College), and Kyung-Geun Lee(Sejong Univ.)
6-3	Second Order Movement Prediction Based Preemptive Local Repair Scheme for AODV YoungChul Kang, SeokHoon Kang, ByoungJo Choi, and JinTak Choi(Univ. of Incheon)
6-4	Arithmetic Mapping for Supporting Complex Query in Structured Peer-to-Peer Systems XuanTung Hoang and Younghee Lee(KAIST)
6-5	An Adaptive Cross-Layer FEC Mechanism for Video Transmission over 802.11 WLANs Longzhe Han(Korea Univ.), Sungjun Park(Korea Univ.), Seung-Seok Kang(Seoul Women's Univ.), and Hoh Peter In(Korea Univ.)

Session 7: Digital Convergence (Room B)

09:00-10:30, Sat, December 19, 2009

Chair: Prof. Yang-woo Kim

7-1	Fair Scheduling Algorithms for Dirty Paper Coding H-J. Joung, D-Y. Kim, H-S. Jo(Yonsei Univ.) , C. Mun(Chungju National Univ.), J. Moon(Samsung Electronics), and J-G. Yook(Yonsei Univ.)
7-2	Intellectual Routing Protocol for Road-Side Information Station in Vehicular Ad Hoc Networks (VANETs) Abhijit Saha, Gyung-Leen Park, In-Hye Shin, Junghoon Lee, and Khi-Jung Ahn(Jeju National Univ.)
7-3	Mining User Intentions from Web Search Query Logs Kinam Park, Taemin Lee, Hyesung Jee(Korea Univ.), Jungsun Chang(Sktelecom), Soonyoung Jung, Kichun Nam, and Heuseok Lim(Korea Univ.)
7-4	Receiver-based Greedy Forwarding Using Candidate Forwarding Nodes in Lossy Wireless Sensor Networks In Hur(Sungkyunkwan Univ.), Moonseong Kim(Michigan State Univ.), Jaewan Seo, and Hyunseung Choo(Sungkyunkwan Univ.)
7-5	Closed-Form Symbol Error Probabilities of Higher-Level 3-Dimensional Signal Constellations for Digital Communication Ju Yeong Kim and Seog Geun Kang(Gyeongsang National Univ.)
7-6	Development of Access Control Certification System based on P2P for Real Time Security Contents Sharing KwangJin Lee, SeungHa Lee, SeChung Pang(Dongguk Univ.), KiHong Kim(Netsecure Technology), and Yangwoo Kim(Dongguk Univ.)

Conference Program

| 10:45-11:45, Sat, December 19, 2009 |

Session 8: Mobility & Communications (Room A)

10:45-11:45, Sat, December 19, 2009

Chair: Prof. Seokhie Hong

8-1	Adaptive Binary Negative-Exponential Backoff Algorithm Based on Estimated Number of Stations in IEEE 802.11 WLAN Bum-Gon Choi, Ju Yong Lee, and Min Young Chung(Sungkyunkwan Univ.)
8-2	A Study on Enhancing the Similarity Verification of Simulated Traffic and Methodology Simulation Youngmin Lee, Seongjin Ahn, and Jin Wook Chung(SungKyunKwan Univ.)
8-3	Energy-Efficient Greedy Forwarding Scheme for Unreliable and Asymmetric Links in Wireless Sensor Networks Dongju Bae, Jaewan Seo, Hyunseung Choo(Sungkyunkwan Univ.), and Wook Choi(Hankuk Univ. of Foreign Studies)
8-4	The Superframe Structure with Cognitive Radio Capability in Wireless Personal Area Network Byunghwa Lee, Minho Park, and Kijun Han(Kyungpook National Univ.)
8-5	Side Information Refinement Using Decoded Partial Frequency Bands for TDWZ Codec Chan-Hee Han, Yeong-Il Jeon(Hanbat National Univ.), Yun-Ho Ko(Chungnam National Univ.), and Si-Woong Lee(Hanbat National Univ.)

Session 9: Internet Security (Room B)

10:45-11:45, Sat, December 19, 2009

Chair:

9-1	Reversible Watermarking Method Using Optimum Histogram Pair Shift Based on Prediction and Sorting Hwang Hee Joon, Kim Hyoung Joong, and Vasily Sachnev(Korea Univ.)
9-2	Sinkhole Router based IP Traceback Mechanism Against DDoS Attack Hyung-Woo Lee(Hanshin Univ.) and Sung-Hyun Yun(Baekseok Univ.)
9-3	Effective Distributed Detection of Clones in Mobile Wireless Sensor Networks Kwan Tae Cho, Minho Jo, and Dong Hoon Lee(Korea Univ.)
9-4	Bonet Damage Propagation Estimation Model Do-Hoon Kim, Taek Lee, Hoh Peter In(Korea Univ.), and Hyun-Cheol Jeong(KISA)
9-5	Domain-based Information Control to Enhance Security in Mobile Platforms Guntae Bae Gaeil An, Kiyong Kim, and Dong Il Seo(ETRI)

Conference Program

| 14:15-15:45, Sat, December 19, 2009 |

Session 10: Ubiquitous Computing & Techniques (Room A)

14:15-15:45, Sat, December 19, 2009

Chair: Prof. Suk-Hoon Kang

10-1	A Computer Assisted Language Learning system based on Principles of Human Language Processing: The English Brain Enhancement System
	Dai-Young Kwon, Sabyuk Lee, Heui-Seok Lim, WonGyu Lee, Hyeon-Cheol Kim, SoonYoung Jung, and Kichun Nam(Korea Univ.)
10-2	Critical Success Factors and Innovative Practices for Using the Digital Textbook in u-Learning Green Environment
	Bong Gyou Lee(Yonsei Univ.), Seong Jin Kim(NIPA), Su Jin Kim, Keon Chul Park(Yonsei Univ.), and Eui Suk Jeong(KERIS)
10-3	A Prerequisite-driven e-Learning Activity Modeling System
	Hyuna Kim, Suki Paik, Junchul Chun, Kwanghoon Kim(Kyonggi univ.), Changmin Kim(Sungkyul Univ.), and Mingyu Kang(Bangsol Corp.)
10-4	Metadata-driven Subspace Collaborative Filtering
	Qingsong Jin, Jaewoo Kang, and Injoon Lee(Korea Univ.)
10-5	Human-Computer Interaction and Space Perception in 3D Contents
	Sang-Hee Kweon and Eun-Joung Cho(SungKyunKwan Univ.)
10-6	Research of IT Governance Resistance
	Young Soon Han(Yonsei Univ.), Kyoung Seok Oh(ETRI), Hyun Sik SEO, and Bong Gyou Lee(Yonsei Univ.)

Conference Program

Poster Session 1: Telecommunication & Next-generation Networks (Main Hall)

15:45-16:45, Fri, December 18, 2009

P1-1	A Semantic Description Framework for Java Language Junglan Han(Hyupsung Univ.)
P1-2	Dynamic TAI List Allocation Method in LTE Network Sangho Lee, Nakpo Kim, and Youngha Ji(KT)
P1-3	Arbitrator based Designated Verifier Signature for Proof of Ownership on Biometrics Hyung-Woo Lee(Hanshin Univ.) and Sung-Hyun Yun(Baekseok Univ.)
P1-4	Attack Event Extraction and Monitoring Mechanism for Detecting Web Attack Hyung-Woo Lee(Hanshin Univ.)
P1-5	An Interactive Method for Volumetric Human Organ Models on Augmented Reality Hwajung Park, Dongsun Kim, and Junchul Chun(Kyonggi Univ.)
P1-6	Drive In Picking System Using RFID and USN Technique Jung-Oh Park, Moon-Seog Jun(Soongsil Univ.), Sang-Geun Kim, and Chang Min Kim(Sungkyul Univ.)
P1-7	A Pixel Interleaving Approach in Distributed Video Coding Chang-Gyoon Lim(Chonnam National Univ.), June Young Chang(ETRI), Kang-Chul Kim(Chonnam National Univ.), and Sang-Hyun Bae(Chosun Univ.)
P1-8	A Study on the Voice Continuity Technology on LTE networks Jinho Hwang, Cheolhyun Kang, Nakpo Kim, Yunggha Ji, and Jongseog Koh(KT)
P1-9	Intelligent Multi-Agent Middleware for Mobile RFID-Based Home Networking Environments Hoichang Kim, Taehyun Kim, Dongil Shin, and DongKyo Shin(Sejong Univ.)
P1-10	An Evaluation Algorithm of Multimedia Fingerprinting using BIBD code Kang Hyeon Rhee(Chosun Univ.)
P1-11	Energy Efficient Data Transmission Method in Cluster-based Sensor Networks Kwang-Won Lee, Young-Min Kim, Yoon-Cheol Hwang(Chung-ju National Univ.), Jung-Hwan Park(TELECOMLAND), and Ryum-Duck Oh(Chung-ju National Univ.)
P1-12	A novel method using multicast for fast inter-cell handoff and efficient network management in PMIPv6 Ju-Hyun Kim, Hyunwoo Hwang(Sejong Univ.), Sang-Yep Nam(Kookje College), and Kyung-Geun Lee(Sejong Univ.)
P1-13	Mobile Phone Context Aware Application Development Framework Muhammad Taufiq N(Univ. of Yogyakarta), Bo-Young Lee, Kyung-Wook Kang, and Deok-Jai Choi(Chonnam National Univ.)
P1-14	Automated migration to Semantic Web Service via ontology construction Mye M. Sohn and Dong Geun Park(Sungkyunkwan Univ.)
P1-15	Intelligent PID and Fuzzy Control System for Stable Load Carrying of Multi - Humanoid Robots Han GuenKim, Won Man Park, Yoon Hyuk Kim(Kyunghee Univ.), Sang-Yep Nam(KookjeCollege), and Dong Han Kim(Kyunghee Univ.)

Conference Program

P1-16	Study for Improving the Urine Incontinence Therapeutic Environment with Self-diagnosis
	Si-Cheol Noh, Jae-Hyun Park, Dong-Hwan Jung(Inje Univ.), Hae-Ki Min(MEDISON CO.,LTD.), Hong-Ki Min(Univ. of Incheon), and Heung-Ho Choi(Inje Univ.)
P1-17	A Data Analysis Model based on MapReduce for Storage Management in Cloud Environment
	Hana Lee, Hyukho Kim(Dongguk Univ.), Pillwoo Lee(KISTI), Alan Wagner(Univ. of British Columbia), and Yangwoo Kim(Dongguk Univ.)
P1-18	A Mobile Digital Rights Management for Android-based SmartPhone
	Sung-Sam Hong, Jong-Hyun Sun, Bong-Ju Kim, Myung-Mook Han(Kyungwon Univ.), Sehwan Yoo(Ajou Univ.), Yungi Baik(B&S Media Co.), and Taikyeong Jeong(Myungji Univ.)
P1-19	The Study of MCBF Algorithm for Pedestrian Location Tracking System
	Jung Jong-In and Kim Jun-Seong, and Lee Sang-Sun(Hanyang Univ.)
P1-20	Malicious Botnet Traffic Analysis for Botnet Detection Measure
	Dae-il Jang(Chonnam National Univ.), Minsoo Kim(Mokpo National Univ.), Hyun-chul Jung(KISA), and Bong-Nam Noh(Chonnam National Univ.)
P1-21	Face Detection Using Edge Intensity, Directional Features and a Support Vector Machine in IR Images
	Dong-Wook Kim(Kyungpook National Univ.), Sang-Heon Lee, Myoung-Kyu Sohn, Chi-Ho Park(DGIST), and Chul-Ho Won(Kyungil Univ.)

Poster Session 2: Ubiquitous Computing & Digital Convergence (Main Hall)

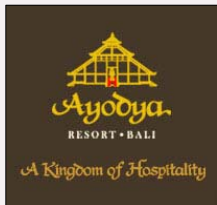
15:45-16:45, Sat, December 19, 2009

P2-1	Implementation of a Samulnori Ensemble System using Hand-held Devices
	Yong-Woong Lee, Jong-Gil Ju, Jong-Sik Cho, Jeong-Hwan Hwang, Ho-Chul Lee, Meong-Hun Lee, Hyun Yoe, and Chang-Sun Shin(Sunchon National Univ.)
P2-2	Implementation of Secure control Algorithm on Device Monitoring system using SMS
	Sungbin Ye, Yongmin Kim, Jeongseon Park, Moonsuk Jang, and Soonhee Han(Chonnam National Univ.)
P2-3	Heart Rate Estimation in PPG and Its Application to Human Sensibility Ergonomics
	Young-Soo Kim, Hyun-Min Lee, Dong-Jun Kim(Cheongju Univ.), Jeong-Whan Lee, and Kyeong-Seop Kim(Konkuk Univ.)
P2-4	Application Models of Clustering for Water Sensor Data Monitoring
	Soosun Cho and Daehyeon Kwon(Chungju National Univ.)
P2-5	A Reverse Tracking Method against Attack Packets using an Advanced Compressed Bloom Filter
	Jong won Yang, Joon Woo, Youn Keun Choi, and Sang Dong Lee(KISTI)
P2-6	Automated differentiation of urine dipstick test results by computer scanning
	KA Kim, SB Lee, CS Choi, IK Lee, WJ Kim, and EJ Cha(Chungbuk National Univ.)
P2-7	Window based Integral TS Demultiplexer for DVB-T/T-DMB
	M.G.Kang, S.C.Hong(Hanshin Univ.), J.W.Lee(Dongaeltek Co.), Y.J.Woo, K.W.Kwon(KETI), S.J.Kang(Korea University of Tech. and Educ.), J.G.Song(Hannam Univ.), and Yong Woo LEE(Univ. of Seoul)
P2-8	Multimodal Biological Signal Analysis System using Intelligent Wireless Sensor and EMLR Algorithm
	Young-Gie Kim, Hun Seo(Chosun Univ.), Byoung-Ho Song(Murdoch Univ.), and Sang-Hyun Bae(Chosun Univ.)

Conference Program

P2-9	Design of a Smart Energy Home based on IEEE802.15.4 and ZigBee Dae Man Han(Kongju National Univ.), Yong Wan Koo(Univ. of Suwon), and Jae Hyun Lim(Kongju National Univ.)
P2-10	Market Test for Introducing New Mobile Telecommunications Policies in Korea Jemin Yang and Jaechon Park(Inha Univ.)
P2-11	A Study of Relationship between App Store Policy and Development Motive Applying ANP Method Bong Gyou Lee, Gun Hee Lee, Yong Ho Shim, and A Jin Choi(Yonsei Univ.)
P2-12	Designing of KREONET Traffic Pattern Analysis System Daejoong Yoon, Seongjin Ahn, and Jinwook Chung(SungKyunKwan Univ.)
P2-13	Design of Intelligent Cyber University Using Fuzzy Logic Jang-Kwon Kim(Daelim Univ. College) You-Sik Hong(Sangji Univ.) Young-Jun Song(Chungbuk National Univ.) Cheon-shik Kim(Anyang Univ.) Seong-Cheol Kim(Dankook Univ.), and Sang Yep. Nam(Kookje College)
P2-14	Performance Analysis of Adaptive Collision Resolution Algorithm Based on DFQ for HomePNA Sueng Jae Bae, Bum-Gon Choi, Ju Yong Lee, and Min Young Chung(SungKyunKwan Univ.)
P2-15	A Method of SW Installation and Execution Information Extraction using Virtual Execution Handler and Multiple Virtual Execution Environments on Dirty PC Environment WonHyuk Choi, Won-Young Kim, and Sung-Jin Hur(ETRI)
P2-16	Design and Implementation of automatic chlorine Input System on the Complex Proportional Method Kyung-min Eom, Chi-ho Lin, and Jin-chun Kim(Semyung Univ.)
P2-17	A Design of P-WASec(Pattern based Web Application Security) Eun-Hee Jeong(Kangwon National Univ.), and Byung-Kwan Lee(Kwandong Univ.)
P2-18	Survey and Analysis on Cryptographic Module Security Testing for Side-Channel Attacks Young-Hwan Bang(KISTI), Kab-Seung Kou, and Gang-Soo Lee(Hannam Univ.)
P2-19	A Design and Implementation of Stock Price Data Prediction System using Neural Network and Decision Tree Tae-Yeun Kim(Chosun Univ) , Byoung-Ho Song, Jang-Jae Lee, and Mike Lee(Murdoch Univ)
P2-20	A Design Speech Signal and Image Data Matching System based on Sensibility Tae-Yeun Kim , Kwang-Ok Lee , Dae-Woong Seo, and Sang-Hyun Bae(Chosun Univ.)
P2-21	A RFID Event Management Policy Modeling System Jihye Song, Kyonghwa Lee, Namgi Kim, Kwanghoon Kim(Kyonggi univ.), Haksung Kim(Dongnam Health College), and Mingyu Kang(Bangsol Corp.)

Hotel Information



AYODYA RESORT BALI
 Jalan Pantar Menglat
 P.O. Box 46, Nusa Dua
 80363 Bali - Indonesia
 T: 62 361 771102
 F: 62 361 771616
 E: info@ayodyaresortbali.com
 W: www.ayodyaresortbali.com

| Ayodya Resort Bali |

Ayodya Resort Bali is a place of quintessential Balinese architectural style and elegance. The resort is designed to resemble a Balinese water palace, expanded to the maximum grandeur. The art of stone statues, fountains, carved relief and lagoon pools proclaim "the Ramayana Epic theme" throughout the Hotel.

| Facilities |

Individuality controlled air conditioning
 Spacious bathroom (tub and shower)
 International direct dial telephone (IDD)
 In-house music
 Cable television and movies
 Mini Bar
 Hair dryer, shaver outlets
 Electric current: 220 volts, 50 cycles
 Private Balcony
 Security electronic card key system
 Coffee & tea making facilities

Cotton robe
 Electronic safety box
 Check out time: 12 am. Day use till: 18 pm
 Complimentary soft drinks, tea and coffee
 Complimentary rental of CDs and DVDs
 Free access to the Ayodya Resort Bali – Bali Gym and Health Club
 Shuttle service to the main Ayodya Resort Spa and the main lobby

| Transportation to Hotel |

From	Distance	Time	By
Airport	12 km	15 min	Car
City Center	30 km	30 min	Car

| Hotel Location |



Travel Information - About Bali & Nusa Dua -

| About Bali |

There is a legend told of an island east of Java. It was a beautiful island, but its fertile plains and palm fringed shores rocked and were unsteady. The gods conferred. They decided the answer lay in placing a mountain upon the island, to balance, calm and soothe it. And so they did.

Happiness then reigned on the island and all was at peace. The mountain was called Great Mountain - GUNUNG AGUNG - (Click for postcard) and the island is BALI,

"The Morning of the World", a magical island full of legends and mystical tales set amid the thousands of islands that are INDONESIA.

Bali is one of the 17,508 islands which make up of the archipelagic Republic of Indonesia. It is easily one of Indonesia's most popular tourist destinations known throughout the world as a paradise isle set in the southern seas with its story-book setting of sun-drenched beaches, rolling surf, rustic villages, fertile plains and sculptured rice terraces. Bali is also graced by colorful temple festivals accompanied by spritely music and dance watched by the local populace, tourists, and the unseen gods from their dwelling places perched on majestic mountains. Located near the eastern-most tip of Java island across the narrow Straits of Bali, this 'Isle of the Gods' is peopled by the friendly Balinese who are more exposed to international tourists than many people in other parts of Indonesia.



| About Nusa Dua |

Crystal clear water and stretches of white sandy beach of Nusa Dua makes Nusa Dua a perfect spot for luxurious resorts to which your exhausted bodies, after a Barong performance at Batubulan and a long climb of the steps of the Mother Temple Besakih, will want to rest. Some of the most sumptuous and luxurious hotels in the world find their home in Nusa Dua Bali. You can relax in the Thalasso spa of the Grand Mirage Resort after a day of surfing or diving.

Or you can tee off into the sunset, while watching the gentle waves come from the blue sea and caress the banks surrounding the luscious greens. Tranquil swimming pools under the coconut trees seem to be one with the distant blue sea. Art galleries and numerous shops surround them.

Travel Information - General Information -

| Banking Service |

Automatic Teller Machines are quite common, especially at shopping centers and bank branches. Most of them are connected to international banking networks, thus making it possible to look for machines that are affiliated with your own ATM network.

Most major banks have branches in the main tourist centers and provincial capitals. Banking hours are generally from 8 am to 2 pm Monday to Friday and until 11 am on Saturdays.

| Credit Card |

Visa, Mastercard, and American Express are accepted by most of the bigger businesses and at hotels. Many shops that accept credit cards add a 3%-5% service fee. Cash advances can be obtained in all major tourist resorts in Denpasar, Kuta, Sanur and Ubud. The amount signed for is in rupiah and the bill is then converted to your domestic currency.

| Currency |

The rupiah is the basic unit of money, normally abbreviated to Rp followed by the value. Denominations of Rp 50 and 100 are in the form of coins; Rp 100, 500 and 1,000 are in either coins or bills. Rp 5,000, 10,000, 20,000 and 50,000 are only available in bills. Values below Rp 50 are rarely seen except as change and are often substituted by sellers with sweets in lieu of change. In Bali, carry a handful of coins or Rp 100 notes and do not exchange large sums of money even if you plan to be there for a long time.

| Currency Exchange |

Foreign currency, whether in banknotes or traveler's checks, should be exchanged at major banks or authorized moneychangers. Exchange rates offered by the moneychangers are generally better than the banks; they also stay open longer and transactions are quicker. Look around for variable exchange rates advertised on boards along the footpaths or windows outside shops. Always ask about any commission imposed before the exchange as many moneychangers with better rates often charge a small commission.

You can get a cash advance on credit cards as well. **(Note)** Due to the volatility of the rupiah, most mid-range hotels, all top-end hotels, restaurants, some tourist attractions, car rental agencies and tour companies list their prices in US dollars

| Electricity |

Most hotels use 220 volts 50 cycles and two-pronged plugs. However it is not uncommon to find some hotels using 110 volts, particularly in the provinces. Check before using an appliance. Some hotels supply adaptors on request.

| Language |

The official language is Bahasa Indonesia. Bahasa simply means language. In the major cities and in hotels English is widely understood. A few Indonesian words are highly appreciated, but not really necessary. In the outer regions such as Nusa Tenggara, English is not spoken widely. In the main destinations many Balinese speak German, French, Italian, Spanish and Japanese.

| Climate |

Bali has a tropical climate all year. The average temperature hovers around 30 degrees Celsius year-round. There are dry and rainy seasons - dry from April to September and rainy from October to March - but it can rain at any time of year and even during the rainy season, rain is likely to pass quickly. In general, May through August is the best time to visit Bali. At that time of year the climate is likely to be cooler and the rains lightest.

Around the coast, sea breezes cool the heat coming off the land and as you move inland you also move up, so the altitude works to keep things cool. It can get very chilly in the highlands and a warm sweater is a good idea in mountain villages like Kintamani or Bedugul.

| Office Hours |

Business Offices: Monday - Friday 8 or 9 am to 4 or 5 pm Some offices are open half day on Saturday
Government Offices: Monday - Thursday 8 am to 3 pm Friday 8 am to 11.30 am Saturday 8 am to 2 pm

| Time Zone |

Indonesia stretches across three time zones: Western Indonesia (Sumatra, Java, West and Central Kalimantan) + 7 GMT Central Indonesia (Bali, South and East Kalimantan, Sula wesi, Nusa Tenggara) + 8 GMT East Indonesia (Maluku and Irian Jaya) , +9 GMT

Travel Information - General Information -

| Tipping |

Major hotels and restaurants usually add 21% service charge and tax to bills. Where it is not included a tip of 5% to 10% of the bill would be appropriate if the service is satisfactory. Airport porters expect Rp. 1,000 for a small bag and Rp. 2,000 for bags weighing more than 20 kg. Tipping taxi and hire car drivers is not mandatory; if however the service was satisfactory a basic tip of 5% is sufficient for a taxi driver but hired car drivers normally expect a larger tip.

(Useful Telephone Numbers)

Long distance calls within Indonesia may be made by direct dialling through International Direct Dial (IDD) in major cities or through operator-assisted calls. Internet and fax services are readily available in major hotels and larger cities.

| Emergency Number |

Ambulance: 118
Fire: 113
Police: 110
Search & Rescue: 51111
Red Cross: 26465

| Medical Service |

AEA International/International SOS (Clinic and Alarm Centre)
Email: sos.bali@internationalsos.com
Jalan By Pass Ngurah Rai 505X,
Kuta 80361
Clinic Tel: 720 100, 710 544
24 hour emergency number: 71050

| Dress Code |

Dress is generally informal in Indonesia. Light fabrics are recommended due to the warm, humid climate. For men, a jacket and tie is considered appropriate when making official visits. The simplest is to follow local custom by wearing a long-sleeve batik shirt. Indonesians are accustomed to shaking hands upon meeting and greeting. It is recommended to bring a sweater or light jacket for travel to mountainous areas. Shorts and beachwear are not considered appropriate except at sports facilities and on the beaches and never appropriate for walking around town or visiting temples and other places of worship.

| Shopping |

Indonesian batiks are world famous. Gold and silverware are reasonably priced. Woodcarvings and handicrafts also make attractive gifts. Indonesia is well known for good buys in clothing, leather products, electronics, etc. Bargaining is customary in small shops and markets, the art of which is to start at the half of the asking price and slowly increase your offer until a compromise is reached. Remember, it helps to smile while bargaining.

In addition to the many open markets and street stalls, there are numerous western-style department stores and shopping centres in Denpasar, Kuta-Legian, Sanur and Nusa Dua that offer a range of clothing, shoes, leather goods, sports gear and toys. The service is generally good, and the value of the rupiah ensures excellent prices. In these types of venues, such as department stores, prices are fixed.

Balinese arts and crafts are the most popular purchases but you can also find good value on clothing, music, musical instruments and watches.

| To/From the Airport |

It is recommended to use the airport taxi service, located to the left of the terminal exit. This service charges a fixed price, while other taxi's fares will have to be bargained. The prices for airport taxis are on display outside the terminal buildings.

If you are travelling on a restricted budget, you can flag down a Blue Bird Taxi from outside the airport or stand in the corner of the International Departure side near the ATM and catch them once they drop off a passenger. Blue Bird Taxis are safe and reliable. Flagging down another taxi company (other than the licensed airport taxis), is not recommended.

| Public Transport |

The main forms of public transport on Bali are the cheap buses, minibuses and bemos (a general term for any vehicle that is used as a public transport which is normally a minibus or van with a row of low seats on each side). They normally run on somewhat set routes within or between towns. Having your own transport can be arranged; there are cars, motorbikes, and bicycles for rent. Tourist shuttle buses that run between major tourist centres are more expensive than public transport but are definitely more comfortable and convenient. Charter Vans or Mini Buses can be rented at a reasonable cost including petrol and a driver/guide. These are great for parties of 6 or more..

Travel Information - Tour Attractions -



| Denpasar |

Denpasar is a bustling, multi-cultural city and although it can seem a little intimidating the first time you visit, just do not believe those travel guides which say it has nothing to offer. Denpasar is bristling with temples, palaces and museums and its occupants are outstandingly friendly. You will be off the beaten tourist track here, so bring lots of time for a chat with the locals and a decent map of town. You can see many of the main sights comfortably on foot.

| Candidasa |

The stretch of coastline from Manggis through **Candidasa town** itself and east to Bugbug is normally just referred to as Candidasa. This is a laid back and very relaxing area of Bali with a wide range of accommodation options. Many visitors, especially Europeans, combine a stay in the hotspots of south Bali with a more relaxed break here.

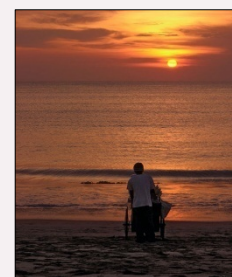


| Kuta |

With a long, broad Indian Ocean beach-front, **Kuta** was originally discovered by tourists as a surfing mecca. It has long been a stop on the classic backpacking route in Asia. Back in the 1980s they used to talk about the three Ks: Katmandu in Nepal, Khao San road in Bangkok and Kuta. Modern day Kuta still attracts some hardcore back-packers but far less so than previously and is more of a playground for young visitors from Australia and Europe.

| Jimbaran |

Jimbaran is just south of the airport and Kuta. This was formerly a real backwater of south Bali - just a tiny fishing village with a daily market. That all started to change in the 1980s though and Jimbaran is now home to several world class five-star beach resorts plus a number of more moderate mid-market hotels. There is little in the way of budget accommodation though.



| Lovina |

Lovina is a relatively new name coined in the 1950s by a local Buleleng Regency official with a good eye for future tourism-based development. It essentially consists of seven traditional villages which all merge into one on a ten kilometre stretch of the main road which hugs the north coast west of Singaraja: Temukus, Kalibukbuk, Anturan, Pemaron, Tukad Mungga, Banyualit and Kaliasem. Kalibukbuk is the main hub of this area and is often thought of "Lovina town centre".

Travel Information - Tour Attractions -

| Seminyak |

The next town north of Legian, **Seminyak** is more upmarket with mostly luxury accommodation and fashionable high-end restaurants and bars. The atmosphere is much more sophisticated and laid-back than Kuta, and the beach in particular is quieter during the day. Seminyak is also the high end spa and boutique shopping capital of Bali. Nowhere is the upscaling of Bali in recent years more obvious than in Seminyak.



| Ubud |

Far removed from the drunken bikini scene in Kuta, **Ubud** can be described as a magical, wonderful, cultural center. Above all, it is famous as an arts and crafts hub. Half (if not more) of the town and nearby villages seem to consist of artists' workshops and galleries, mostly retailing cheap reproductions for tourists. There are some remarkable architectural sights, artistic gems to be found, and a general feeling of well being to be enjoyed thanks to the spirit, surroundings and climate.

| Bedugul |

Bedugul is the name used to cover a large area of the central highlands of Bali around the villages of Candikuning, Pancasari, Pacung and Wanagiri (amongst others). This is an area of great natural beauty. The focus point of the area centres on the three crater lakes of Bratan (Beratan), Buyan and Tamblingan and the nearby botanical gardens. The whole area is at an altitude of 700 metres or more with the tallest mountain peaks above 2,000 metres and it can be distinctly cold here.



| Nusa Lembongan |

Nusa Lembongan is approximately 8 square kilometres in size and is one of three neighbouring islands, the others being much larger Nusa Penida and tiny Nusa Ceningan (also covered by this article). The three islands are separated from Bali by the Badung Strait.

| West Bali National Park |

West Bali National Park (Taman Nasional Bali Barat in Bahasa Indonesia) is the most north-westerly point of Bali. It includes the whole of the Prapat Agung Peninsula and large swathes of land around the towns of Gilimanuk, Cekik and Banyuwedang. The official area inside the park boundaries is 190 square kilometres with a further 580 square kilometres of protected reserve in the highlands to the east. In total this accounts for some ten percent of Bali's total land area.



Travel Information - Foods -



| BE CELENG BASE MANIS (Pork in Sweet Soya Sauce) |

This delicious sweet pork dish with a hint of ginger and plenty of chilies to spice it up often appear on festive occasions, when a whole pig is slaughtered and there's plenty of meat available.

| BE SIAP BASE KALAS (Chicken in Spiced Coconut Milk) |

Coconut is readily available and inexpensive in Bali, so almost any type of meat or seafood is cooked in coconut-milk gravy; this chicken dish is particularly good.



| JUKUT KAKUL (Snail Soup) |

The French are not the only ones to have a liking for snails. The Balinese gather snails in the rice fields. But you can use the canned variety. Cucumber, zucchini or any other summer squash can be used instead of green papaya.

| KENUS MEBASE BALI (Balinese Squid) |

If you are only accustomed to eating deep-fried squid, you'll be surprised by the difference when it is cooked Balinese style. If squid is unavailable, replace with large cuttlefish or any other firm fish fillets such as snapper or sea bass.



| GODOH (Fried Bananas) |

Fried bananas is popular throughout Southeast Asia, where they are abundant and inexpensive. The slow frying technique used in this recipe ensures that the bananas remain crisp after cooking.