



Proceedings
14th International Conference on
Computer Communications and Networks

ICCCN 2005

Marriott Hotel San Diego Mission Valley

17 - 19 October 2005

San Diego, California USA

Editors:

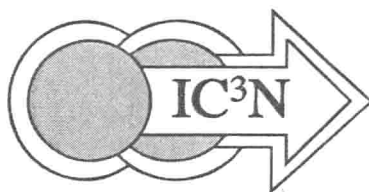
Sandra R. Thuel • Yuanyuan Yang • E.K. Park

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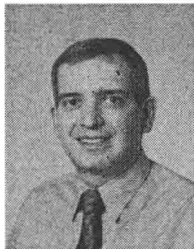
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Message from the general chair



Welcome to San Diego and the 14th International Conference on Computer Communications and Networks (ICCCN 2005)!

This year, we saw an increase in the number of manuscripts submitted, and the conference selectivity is again comparable to the top IEEE conferences in this field. The Technical Program Committee (TPC) had the challenging task of selecting the very best among the submissions and I am very proud of the quality of the papers that will be presented in the next three days. I would like to thank all the members of the TPC, as well as external reviewers, for their active participation at a time when demand for conference and journal reviews is at an all time high. I also truly appreciate the tremendous job that the TPC co-chairs, Dr. Sandra Thuel and Prof. Yuanyuan Yang, have done (by the way, making my job as general chair much more enjoyable).

We also continue with the tradition of recognizing the top nine papers accepted for the conference and selecting one of those to receive a best paper award. These are papers of outstanding quality and hopefully the recognition provides an incentive for all prospective authors to submit their very best work to the conference.

Looking at the conference program over the years provides an interesting view of the fast evolution of networking research. At ICCCN 1995, virtually all papers dealt with wired networks: there were sessions on flow and congestion control, local area network performance, queuing models. Then, Asynchronous Transfer Mode (ATM) reigned supreme: thirty of the papers presented included the acronym in the title! Ten years later, interest has shifted to include peer-to-peer communications, overlay networks, optical networks, and there is a heavy weight on wireless and ad hoc networks; papers on ATM are nowhere to be seen. It is exciting to think of what the next ten years will bring: cognitive networks, truly ubiquitous computing, nano-scale communications?

For the conference to remain relevant and to provide a contribution to the state of the knowledge in computer communications and networks, it needs to maintain its high standards for acceptance of papers, be able to attract work from top researchers around the world, and to have an organizing committee that welcomes change. I believe ICCCN is now poised to do all of these. Prof. E. K. Park, the founder of ICCCN, is still very much involved with its organization – he deserves the credit for creating and steering a lasting, important conference.

I hope you all enjoy the papers presented, the keynote speakers (a particularly impressive group this year), and your interactions with colleagues. I have been involved with this conference for the past three years, first as technical program co-chair and this year as general chair. At those conferences, I have been fortunate to meet many people from whom I have learned a great deal. I again look forward to seeing old friends again and making new ones this year.

And, yes, make sure to save some time to explore beautiful San Diego, a particularly nice place to be in October!

Luiz DaSilva, *Virginia Tech*
IEEE ICCCN2005 General Chair

Message from the program chairs



Welcome to San Diego and the fourteenth International Conference on Computer Communications and Networks (ICCCN 2005)! We are very pleased that the conference continues to attract high quality submissions from a diverse and international group of researchers.

The 258 regular papers submitted this year come from 24 countries in five continents. Most of these papers received three or four peer reviews from our technical program committee (TPC), comprising 130 members from academia and industry. At the TPC meeting hosted by Bell Laboratories, Lucent Technologies in Murray Hill, NJ, we analyzed the reviews returned and selected 83 papers for presentation at the conference. These papers come from institutions in Australia, Brazil, Canada, France, Germany, Greece, India, Italy, Japan, Korea, the People's Republic of China, Singapore, Thailand, the United Kingdom, and the United States.

The conference program starts each day with a keynote speaker, highlighting the latest research trends in networking. A total of 27 technical sessions, in three parallel tracks, form the core of the technical program. These sessions reflect the topics that the research community is currently interested in, with a strong showing in the areas of wireless networks, optical networking, security, overlays, and multimedia support. We are also pleased to follow-up last year's introduction of a student poster session with an interesting array of graduate research work in progress comprising 13 contributions from 5 additional countries, namely, Iran, Ireland, the Netherlands, Sweden, and Tunisia. Adding luster to the technical program, a panel discussion held on the second day of the conference will feature leading-edge technology experts pondering on the challenges and future directions for mobile and wireless communication as it continues to evolve in its path to ubiquity.

This year, the program committee again selected the top 9 papers of the conference, which will be presented in three parallel sessions on the second day of the conference. One of these papers was selected to receive the best paper award, to be announced at the conference banquet.

A conference of this size cannot be organized without the support and hard work of many people. We thank all researchers who submitted manuscripts, as well as the technical program committee and external reviewers, for all their contributions to the conference. For help with the logistics of manuscript submission and reviews, we are especially indebted to Prof. E.K. Park, the Steering Committee Chair, and his student Saurabh Bhandari. Their efforts were instrumental in our successful coordination of the review process.

We are resolved and committed to ensuring that ICCCN continues to support high-quality research even amongst the many growing networking research communities world-wide. To this effect, we welcome your feedback and suggestions on how to enhance the relevance and impact that this community can have on the technology landscape moving forward. Please feel free to approach us during the three days of the conference to express any insights or concerns you may have regarding this subject and/or to volunteer your help in organizing a future conference.

We hope all of you enjoy ICCCN 2005 and find this a productive opportunity to learn, exchange ideas, make new contacts and renew old ones. May your visit also include some time to enjoy the charming city of San Diego.

Sandra Thuel, *Bell Laboratories, Lucent Technologies*, and **Yuanyuan Yang**, *SUNY Stony Brook*
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Author Index

A

Agarwal, A.K.	443
Alanqar, W.	549
Amimireddygar, K.	549
Arazi, O.	359
Ata, S.	407
Audouin, O.	317

B

Balasubramanian, S.	249
Basar, T.	339
Becker, C.	77
Benhaddou, D.	549
Bertok, P.	35
Bhandari, S.	243
Bhuyan, L.N.	199
Boukerche, A.	557
Bui, D.B.	569
Bush, S.F.	93

C

Cai, Y.	223, 577
Calyam, P.	537
Cao, J.	165
Chaker, O.	593
Chan, M.C.	25
Chanda, P.	437
Chavez, D.	517
Chellappan, S.	489
Chen, K.	592
Chen, R.	275
Chen, Y.	187
Chin, K.-W.	99, 107
Choi, H.	503
Choi, Y.	543
Chua, K.-C.	297
Cobb, J.A.	469
Conan, J.	593
Crowcroft, J.	145

D

de Oliveira, H.A.B.F.	557
del Rio, H.	289
Dimopoulos, P.	421
Doh, Y.	483
Dong, G.	563
Doumith, E.A.	317
Dürr, F.	77

E

Eriksson, J.	596
Eun, D.Y.	463

F

Fahmy, S.	401
Feng, G.	65
Fitzek, F.H.P.	375

G

Gagnaire, M.	317
Gandham, S.	449
Gao, W.	193
Geroge Lee, C.S.	428
Ghani, N.	549
Gillespie, D.	517
Gohakle, A.	531
Gouda, M.G.	333
Gu, T.	395
Gu, W.	489
Gu, Y.	415
Guéroui, A.	381
Guru, R.	365

H

Haddix, F.	19
Han, B.	7
Han, J.	583
Hao, G.	345
Harms, J.	71, 303
Holte, R.	71, 303
Honda, O.	173
Hosaagrahara, M.	457

Hossain, A.K.M.M.	43
Huang, C.-T.	333
Huang, G.	365
Hughes, E.A.	503

I

Imase, M.	173
Iyer, Y.G.	449

J

Jarnikov, D.	594
Jeacle, K.	145
Jia, W.	7
Jiang, C.	563
Jin, X.-y.	591

K

Kamal, A.E.	249
Kanchanasut, K.	43
Kannan, K.	428
Karlsson, J.	596
Kasera, S.	113
Kashyap, A.	153
Kavimandan, A.	531
Kawano, K.	598
Kim, B.	229
Kim, D.	483, 569
Kim, E.	497
Kim, J.	497
Kim, K.	223
Kinoshita, K.	598
Kong, P.-Y.	297
Koo, S.G.M.	428
Kovacs, J.	333
Krymskiy, D.	537
Ksentini, A.	381
Kwon, M.	401

L

Lad, M.	543
Lai, K.Y.	35
LaPorta, T.	211
Lee, C.	497
Lee, W.	497, 531

Lennon, R.	595
Li, H.	215, 596
Li, W.	57
Li, X.	297
Li, Y.	71, 303
Li, Z.	19
Liang, W.	255
Ling, H.	13
Liu, A.	333
Liu, B.	57
Liu, H.	125
Liu, W.	511
Liu, Y.	583
Liu, Z.	323
Lou, J.	187
Loureiro, A.A.F.	557
Lowe, D.	107
Lukkien, J.	594
Luo, L.	592

M

Mahanti, A.	597
Mamatas, L.	179
Manimaran, G.	139
Marwah, M.	517
Matsuda, K.	173
Miao, J.	583
Mintz-Habib, M.	523
Mohammed, A.K.	49
Mohanty, S.R.	199
Mohapatra, P.	139
Mosse, D.	13
Murakami, K.	598
Murata, M.	407
Murayama, J.	173
Murphy, J.	595
Musunuri, R.	469
Myung, J.	497

N

Naimi, M.	381
Nakamura, E.F.	557
Ni, L.	583

Table of Contents

Message from the General Chair	iii
Message from the Program Chairs	v
ICCCN 2005 Organizing Committee	vi
ICCCN 2005 Technical Program Committee Members	vii
ICCCN 2005 Reviewers	xi
Keynote Speech I: Network Diversification - Enabling Innovation in Network Architecture and Services	3
<i>Professor Jonathan Turner, Washington University in St. Louis</i>	
Session 1: Ad Hoc Routing I	
<i>Chair: Prasun Sinha, Ohio State University</i>	
Design and Analysis of Connected Dominating Set Formation for Topology Control in Wireless Ad Hoc Networks	7
<i>Bo Han, Weijia Jia</i>	
Coverage-based Probabilistic Forwarding in Ad Hoc Routing	13
<i>Hui Ling, Daniel Mosse, Taieb Znati</i>	
A Practical Spanning Tree based MANET Routing Algorithm	19
<i>Wuxu Peng, Zhuojing Li, Furman Haddix</i>	
Stability and Hop-Count based Approach for Route Computation in MANET	25
<i>K.N. Sridhar, Mun Choon Chan</i>	
Session 2: Mobility	
<i>Chair: Jorge Cobb, University of Texas at Dallas</i>	
Supporting Disconnection Operations Through Cooperative Hoarding	35
<i>Kwong Yuen Lai, Zahir Tari, Peter Bertok</i>	
A Handover Management Scheme for Mobile IPv6 Networks	43
<i>A.K.M. Mahtab Hossain, Kanchana Kanchanasut</i>	
A Modified Random Way-Point Model Equalized for the Node Crowding Effect	49
<i>Ahamed Khan Mohammed</i>	
Session 3: Routing	
<i>Chair: Itamar Elhanany, University of Tennessee at Knoxville</i>	
A Scalable Scheduling Algorithm to Avoid Conflicts in Switch-Memory-Switch Routers	57
<i>Yang Xu, Beibei Wu, Wenjie Li, Bin Liu</i>	
Computing Delay Constrained Paths from One Source to Single/All Destinations	65
<i>Gang Feng</i>	
A Simple Method for Balancing Network Utilization and Quality of Routing	71
<i>Yuxi Li, Janelle Harms, Robert Holte</i>	
Efficient Forwarding of Symbolically Addressed Geocast Messages	77
<i>Frank Dürr, Christian Becker, Kurt Rothermel</i>	
Session 4: Energy Efficient Sensors	
<i>Chair: Yu Wang, University of North Carolina</i>	
A Lightweight Classification Algorithm for Energy Conservation in Wireless Sensor Networks	87
<i>Nurcan Tezcan, Wenye Wang</i>	
Low-Energy Sensor Network Time Synchronization as an Emergent Property	93
<i>Stephen F. Bush</i>	
ArDeZ: A Low Power Asymmetric Rendezvous MAC for Sensor Networks	99
<i>Kwan-Wu Chin, Raad Raad</i>	

Session 5: WLANS/WPANS

Chair: Nirmala Shenoy, Rochester Institute of Technology

A Novel IEEE 802.15.3 CTA Sharing Protocol for Supporting VBR Streams	107
<i>Kwan-Wu Chin, Darryn Lowe</i>	
FairMAC: Fair Sharing of Multi-Access Channels in WLAN Hotspots	113
<i>Prasun Sinha, Yuval Shavitt, Ramachandran Ramjee, Danny Raz, Sneha Kasera</i>	
Smart PSK Provisioning: a Key-Management and Authentication Scheme for Wireless Local Area Networks	119
<i>Dario Tonesi, Luca Salgarelli</i>	
Resource Management and QoS Control in Multiple Traffic Wireless and Mobile Internet Systems	125
<i>Yong Xu, Huazhou Liu, Qing-An Zeng</i>	

Session 6: Multicast

Chair: Hongsik Choi, Virginia Commonwealth University

Constructing Minimum Cost Dynamic Multicast Trees under Delay Constraint	133
<i>Min Yang, Yuanyuan Yang</i>	
Heterogeneous QoS Multicast in DiffServ-like Networks	139
<i>A. Sai Sudhir, G. Manimaran, Prasant Mohapatra</i>	
TCP-XM: Unicast-enabled Reliable Multicast	145
<i>Karl Jeacle, Jon Crowcroft</i>	

Session 7: Ad Hoc Networking

Chair: Jingyuan Zhang, University of Alabama

Maximizing Open Capacity in Mobile Optical Backbone Networks using Controllable Mobile Agents	153
<i>Fangting Sun, Abhishek Kashyap, Mark Shayman</i>	
Efficient On-Demand Topology Control for Wireless Ad Hoc Networks	159
<i>Yu Wang, Xinghua Shi</i>	
A Scalable Mutual Exclusion Algorithm for Mobile Ad Hoc Networks	165
<i>Weigang Wu, Jiannong Cao, Jin Yang</i>	

Session 8: Flowchart Control

Kurt Rohloff, UIUC

Scalable IP-VPN Flow Control Mechanism Supporting Arbitrary Fairness Criteria - Part 1: Architecture Design	173
<i>Osamu Honda, Hiroyuki Ohsaki, Makoto Imase, Junichi Murayama, Kazuhiro Matsuda</i>	
CA-RTO: A Contention-Adaptive Retransmission Timeout	179
<i>I. Psaras, V. Tsaoussidis, L. Mamatas</i>	

Session 9: Switching & Scheduling

Chair: Manimaran Govindarasu, Iowa State University

Achieving Maximum Throughput with Minimum Number of Label Switched Paths in MPLS Networks	187
<i>Hua Wang, Jianyu Lou, Yu Chen, Yamin Sun, Xiaojun Shen</i>	
A Dual Round-Robin Algorithm for Combined Input-Crosspoint-Queued Switches	193
<i>Yanfeng Zheng, Wen Gao</i>	
On Fair Scheduling in Heterogeneous Link Aggregated Services	199
<i>Satya R. Mohanty, Laxmi N. Bhuyan</i>	

Panel Session: "The Next Big Bang in Wireless and Mobile Communication"

Chair: Dr. Sandra Thuel, Bell Labs, Lucent Technologies

Moderator: Prof. Rene Cruz, University of California at San Diego (UCSD)

Panelists:

Dr. Rajiv Laroia, Flarion Technologies

Dr. Preston Marshall, DARPA

Dr. Joseph Evans, NSF

Professor Ramesh Rao, UC San Diego

Keynote Speech II: "Security and IP-Based 3G Wireless Networks"	211
<i>Professor Thomas LaPorta, Pennsylvania State University</i>	
Session 10: Ad Hoc Routing II	
<i>Chair: Wuxu Peng, Texas State University</i>	
An Anchor-Based Routing Protocol with Cell ID Management System for Ad Hoc Networks	215
<i>Huaizhi Li, Mukesh Singhal</i>	
A Priority Forwarding Technique for Efficient and Fast Flooding in Wireless Ad Hoc Networks.....	223
<i>Kihwan Kim, Ying Cai, Wallapak Tavanapong</i>	
Energy-Aware Connected Dominating Set Construction in Mobile Ad Hoc Networks.....	229
<i>Bonam Kim, Junmo Yang, Dong Zhou, Min-Te Sun</i>	
Grid Based Two Transmission Range Strategy for MANETs.....	235
<i>Zhijun Wang, Jingyuan Zhang</i>	
Session 11: Optical Networks	
<i>Chair: Byrav Ramamurthy, University of Nebraska-Lincoln</i>	
Dynamic Reconfiguration for Optical Network	243
<i>Saurabh Bhandari, E.K. Park</i>	
Sparsely Hubbed Light-Trail grooming networks.....	249
<i>Srivatsan Balasubramanian, Arun K. Somani, Ahmed E. Kamal</i>	
On-Line Multicast Routing in WDM Grooming Networks.....	255
<i>Arun Vishwanath, Weifa Liang</i>	
Session 12: Denial-of-Service	
<i>Chair: Chin-Tser Huang, University of South Carolina</i>	
Detecting Denial-of-Service Attacks with Incomplete Audit Data	263
<i>Animesh Patcha, Jung-Min Park</i>	
On the Impact of DoS Attacks on Internet Traffic Characteristics and QoS.....	269
<i>Philippe Owezarski</i>	
Attack Diagnosis: Throttling Distributed Denial-of-Service Attacks Close to the Attack Sources.....	275
<i>Ruiliang Chen, Jung-Min Park</i>	
On the Effect of Router Buffer Sizes on Low-Rate Denial of Service Attacks.....	281
<i>Sandeep Sarat, Andreas Terzis</i>	
Session 13: MANET Performance	
<i>Chair: Hee Yong Youn, Sungkyunkwan University, South Korea</i>	
Packet Delay Estimation for Ad Hoc Networks	289
<i>Heberto del Rio, Dilip Sarkar, Luisa D. Stelling</i>	
Analysis of TCP Throughput in IEEE 802.11 based Multi-Hop Ad Hoc Networks	297
<i>Xia Li, Peng-Yong Kong, Kee-Chaing Chua</i>	
Impact of Lossy Links on Performance of Multihop Wireless Networks	303
<i>Yuxi Li, Janelle Harms, Robert Holte</i>	
Session 14: WDM Networks	
<i>Chair: Driss Benhaddou, University of Houston</i>	
Least-cost Disjoint Paths with Dependent Cost Structure in Wavelength Continuous Optical WDM Networks	311
<i>Ajay Todimala, Byrav Ramamurthy</i>	
Traffic Engineering for Virtual Private Networks and Random Traffic Demands in WDM Optical Core Networks.....	317
<i>Elias A. Doumith, Maurice Gagnaire, Olivier Audouin, Nicolas Puech</i>	
Reducing Restoration Blocking in WDM Optical Networks	323
<i>Zhi Liu, Lu Ruan</i>	