

## Editorial

The Journal of Internet Engineering (JIE) aims at focused research on the architecture of next generation Internet, the future Internet protocol sets and their extensions, as well as the design properties of supportive middleware. The strategic and distinct aim of the Journal places the Internet at the research core, targeting new engineering approaches, which will host naturally evolutionary applications, as well as specific network architectures, protocols and devices.

New applications emerge rapidly, based on the Internet infrastructure. That is, the Internet is envisioned as a global communication bus destined to satisfy diverse requirements of applications worldwide. That includes typical web and ftp communications, email, Internet telephony, peer-to-peer, television, multimedia communications, sensor internetworking, command and control, and commercial applications. The infrastructure also spans across a variety of different technologies across layers and integrates wired, wireless, satellite, low- and high-speed links. That said, the Internet occasionally lacks the degree of reliability, which is necessary for commercial applications, the performance necessary for multimedia communications, the granularity needed for online command and control applications, the security required for military or mission-critical applications. It therefore appears as a critical infrastructure, which, however, did not manage to get its direction clearly; rather, it is undecidedly standing on the crossroad towards an entertainment- or business-oriented tool.

Things change rapidly, however, and research manages to extend Internet into space, demonstrate its use for exchanging sensor data from one continent to another, highlight the social aspects of the infrastructure for health, politics, education etc. Also research-wise, Internet research has momentum; it is probably the best time now to balance maturity with expectations and focus on the reliability required for the emerging applications.

In this context, the Journal of Internet Engineering has a distinctive scope. Although it invests on the experience and technology of the past, it is not strictly confined by the established Internet rules; rather, it attempts to integrate rules for the evolving dynamics. Therefore, it invests on the existing infrastructure but calls for research directions on protocol extensions, integration of telecommunications, ad-hoc and sensor networking, autonomic and grid computing, space Internet; it also invests on radically new ideas and perspectives on the architecture of the next generation Internet. Therefore, JIE is introduced as the means for collective research articles on the future Internet and its relation to other specific domains, i.e., not as a general computer networks journal, a specific Internet application journal or a telecommunications journal. JIE's scope also justifies the expertise diversity of the editorial board. The editorial board will implement a strict JIE evaluation procedure for the submitted papers.

Special issues will present several research papers on particular topics of interest. We appreciate proposals for such topics by guest editors. In addition, we are also interested in special issues based on extended versions of highest-quality papers that have been published in selective conferences or workshops.

The journal has intentionally a small but functional advisory board: Ian Akyildiz, Nitin Vaidya, and Adam Wolisz. They are all distinguished scientists with valuable expertise in editorial duties as well. We rely very much on their help and express our gratitude for their support.

The journal has also a carefully-selected editorial board, which is presented in detail, in this first issue. The board spans across all continents and all Internet-related specialties. If need be, the board will be expanded. We are proud for our board and we know that the success of the journal depends on the quality and effort of the board; therefore, we are very optimistic.

Finally, we wish to highlight the fact that both online and printed versions of the journal will be available, four times per annum. The online version will become available as soon as the articles of each issue have been accepted and proof-checked. Our technical team is working hard under the guidance of Panagiotis Papadimitriou, and our sponsoring publisher is dedicated to bring this journal to success.

We are therefore proud to introduce the Journal of Internet Engineering.

Vassilis Tsaoussidis  
Editor-in-Chief for Regular Papers

Torsten Braun  
Editor-in-Chief for Special Issues

## Editorial Board



**Hitoshi Asaeda** received his B.E. in Science and Technology and Ph.D. in Media and Governance from Keio Univ. in 1991 and 2006 respectively. From 1991 to 2001, he was with IBM Japan, Ltd. From 2001 to 2004, he was a research engineer specialist in the INRIA Sophia Antipolis research unit, France. Since 2005, he is an assistant professor of Graduate School of Media and Governance, Keio Univ. His research interests are IP multicast routing protocols and its deployable architecture including implementations of corresponding kernel and user codes. He is a member of IEEE, IEICE, and IPSJ. He is an area director of WIDE project.



**Torsten Braun** got his diploma and Ph.D. degrees from the University of Karlsruhe, Germany, in 1990 and 1993, respectively. From 1994 to 1995 he was a guest scientist with INRIA Sophia Antipolis, France. From 1995 to 1997 he worked as a project leader and senior consultant at the IBM European Networking Center, Heidelberg, Germany. Since 1998 he has been a full professor of computer science at the Institute of Computer Science and Applied Mathematics of University of Bern, Switzerland, heading the Computer Networks and Distributed Systems research group. He has been a board member of SWITCH (Swiss Education and Research network) since 2000. During his sabbatical in 2004, he has been visiting scientist at INRIA Sophia-Antipolis and the Swedish Institute of Computer Science at Kista.



**Georg Carle** is full professor of Computer Science at the University of Tübingen, Germany, where he holds the chair for Computer Networks and Internet. He received a M.Sc. degree from Brunel University London in 1989, a diploma degree in Electrical Engineering from the University of Stuttgart in 1992 and a doctoral degree in Computer Science from the University of Karlsruhe in 1996. In 1997, he was with Institut Eurécom, Sophia Antipolis, France. From October 1997 until 2002 he has been with GMD / Fraunhofer FOKUS in Berlin. He co-authored over 90 papers in conference proceedings and journals, and holds several patents. Since 1997, he was responsible for more than 26 national and international projects with an overall funding of more than 9 million Euros. He has been organizer of many workshops and conferences. His activities include being Vice-Chair of the IEEE Technical Committee on High-Speed Networks, and Working Group Chair of the IFIP WG6.2 Network and Internetwork Architecture.



**Dah Ming Chiu** received B.Sc. in Electrical Engineering from Imperial College, University of London, and Ph.D. from Harvard University, in 1975 and 1980 respectively. He has worked in industry for over twenty years, first at Bell Labs, then Digital Equipment Corporation, and Sun Microsystems Research Labs. Since 2002, he has been a professor in the Information Engineering Department of the Chinese University of Hong Kong. He is best known for his contribution to the study of network congestion control, by proposing and analyzing a distributed algorithm (AIMD) that was adopted in the Internet and various other networking scenarios. His current research interests include P2P networks, network traffic monitoring and analysis, ISP peering, wireless networks, and various economic issues in the Internet. Two recent papers he co-authored have won best student paper awards. He is actively serving in various conference TPCs, and has recently joined the IEEE/ACM ToN editorial board.



**Chun Tung Chou** is a Senior Lecturer and the Head of the Network Research Group at the School of Computer Science and Engineering, University of New South Wales, Sydney, Australia. He received his BA in Engineering Science from the University of Oxford, UK and his Ph.D. in Control Engineering from the University of Cambridge, UK. He has published extensively in computer networking and system identification. His current research interests are in Wireless Mesh Networks, Wireless Sensor Networks and Network Optimization.



**Michael Devetsikiotis** received the Dipl.Eng. degree in Electrical Engineering from the Aristotle University of Thessaloniki, Greece, in 1988, and the M.Sc. and Ph.D. degrees in Electrical Engineering from North Carolina State University, Raleigh, in 1990 and 1993, respectively. As a student he received scholarships from the National Scholarship Foundation of Greece, the National Technical Chamber of Greece, and the Phi Kappa Phi Academic Achievement Award for a Doctoral Candidate at North Carolina State University. In 1993 he joined the Broadband Networks Laboratory at Carleton University, Ottawa, Canada, as a Research Associate, later becoming an Assistant and ultimately an Associate Professor in the Department of Systems and Computer Engineering. In 2000, he joined the Department of Electrical and Computer Engineering at NC State where he became a Professor in 2006. He remains an Adjunct Research Professor at Carleton University, and an active member of the Operations Research faculty. Michael served as Chairman of the IEEE Communications Society Technical Committee on Communication Systems Integration and Modeling. He is an Area Editor of the ACM Transactions on Modeling and Computer Simulation and a member of the editorial board of the International Journal of Simulation and Process Modeling.



**Christos Douligeris** received the Diploma in Electrical Engineering from the National Technical University of Athens in 1984 and the M.S., M.Phil. and Ph.D. degrees from Columbia University in 1985, 1987, 1990, respectively. He held positions with the Department of Electrical and Computer Engineering at the University of Miami, where he reached the rank of associate professor. He is currently an associate professor at the department of Informatics, University of Piraeus, Greece and an associate member of the Hellenic Authority for Information and Communication Assurance and Privacy. He has served in technical program committees of several conferences. His main technical interests lie in the areas of security and performance evaluation of high speed networks, neurocomputing in networking, resource allocation in wireless networks and information management, risk assessment and evaluation for emergency response operations. He was the guest editor of a special issue of the IEEE Communications Magazine on Security for Telecommunication Networks and he is preparing a book on Network Security to be published by IEEE Press/ John Wiley. He is an editor of the IEEE Communications Letters, a technical editor of IEEE Network, Computer Networks (Elsevier), International Journal of Wireless and Mobile Computing (IJWMC) and the Euro Mediterranean Journal of Business (EMJB).



**Sergey Gorinsky** is a native of Skhodnya, Russia. He received the degree of Engineer at Moscow Institute of Electronic Technology, Zelenograd, Russia and M.S. and Ph.D. degrees from the University of Texas at Austin, USA. Dr. Gorinsky is currently with Washington University in St. Louis, USA where he works as an Assistant Professor at the Applied Research Laboratory in the Department of Computer Science and Engineering. His primary research interests are in computer networking and distributed systems. Dr. Gorinsky's work appeared at top conferences and journals such as ACM SIGCOMM, IEEE INFOCOM, and IEEE/ACM Transactions on Networking. He has been serving on Technical Program Committees of IEEE INFOCOM and other networking conferences.



**Hossam Hassanein** is a leading researcher in the School of Computing at Queen's University in the areas of broadband, wireless and variable topology networks architecture, protocols, control and performance evaluation. Before joining Queen's University in 1999, he worked at the department of Mathematics and Computer Science at Kuwait University (1993-1999) and the department of Electrical and Computer Engineering at the University of Waterloo (1991-1993). Dr. Hassanein obtained his Ph.D. in Computing Science from the University of Alberta in 1990. He is the founder and director of the Telecommunication Research (TR) Lab <http://www.cs.queensu.ca/~trl> in the School of Computing at Queen's. Dr. Hassanein has more than 250 publications in reputable journals, conferences and workshops in the areas of computer networks and performance evaluation. Dr. Hassanein has organized and served on the program committee of a number international conferences and workshops. He is a senior member of the IEEE and serves as the Secretary of the IEEE Communication Society Technical Committee on Ad hoc and Sensor Networks (TC AHSN). Dr. Hassanein is the recipient of Communications and Information Technology Ontario (CITO) Champions of Innovation Research award in 2003.



**Geert Heijenck** received his M.Sc. in Computer Science from University of Twente, the Netherlands, in 1988. He has worked as a research staff member at the same university and received his Ph.D. in Telecommunications in 1995. He has also held a part-time position as researcher at KPN research, the Netherlands, from 1989 until 1991. From 1995 until 2003, he was with Ericsson EuroLab Netherlands, first as a senior strategic engineer, and from 1999 as a research department manager. From 1998 until 2003 he was also a part-time senior researcher at the University of Twente. Currently, he is a full-time associate professor at the same university. Geert Heijenck has been a visiting researcher at University of Pennsylvania, Philadelphia and a visiting associate professor at University of California, Irvine. He is a senior member of the IEEE. His research interests include mobile, wireless, and ad-hoc networks, resource management, and quality of service.



**Marc Heissenbüttel** is currently working for Switzerland's leading mobile operator Swisscom Mobile as a Senior R&D Engineer. He received his M.S. and Ph.D. degree in computer science from the University of Bern, Switzerland, in 2001 and 2005, respectively. His Ph.D. thesis was awarded the "Kommunikation und Verteilte Systeme (KuVS) Preis". His research interests include mobile ad-hoc networks, mobility management, and heterogeneous wireless networks.



**Yevgeni Koucheryavy** is a Docent and Senior Research Scientist in the Institute of Communications Engineering at the Tampere University of Technology, Finland. He received the M.S. and Candidate of Science degrees from State University of Telecommunications, St. Petersburg, Russia, and the PhD degree from Tampere University of Technology, Tampere, Finland. Before joining the Tampere University of Technology, he spent five years with R&D LONIIS in St. Petersburg, Russia, where he held various technical and managerial positions. His research interests include QoS provision techniques for ireless/mobile communications, protocols optimization, network performance evaluation, traffic measurement and teletraffic theory. He is the General/Program Chair of the several international conferences. He is the Chair of COST 290 Action "Traffic and QoS Management in Wireless Multimedia Networks". He is the co-editor of three conference proceedings books and the author of 1 monograph and over 50 international publications in journals and conferences.



**Peter Langendoerfer** received his diploma in computer science from the Technical University of Braunschweig in 1995 and his doctoral degree from the Brandenburg University of Technology at Cottbus (BTU) in 2001. From 1995 until 2000 he worked as scientific assistant in the Department of Computer Science of the BTU. Since 2000 he is with the IHP in Frankfurt (Oder). There, he is leading the mobile middleware group. He has published more than 50 refereed technical articles, filed six patents in the security/privacy area and worked as guest editor for the Journal of Super Computing (Kluwer), Computer Communications (Elsevier), Wireless Communications and Mobile Computing (Wiley) and ACM Transactions on Internet Technology. He was general chair of the International Conference on Internet Computing, and technical program chair of the International Conference on Wired/Wireless Internet Communications. He is/was a TPC member of Globecom, VTC, ICC, WWIC and Wirelesscom and many more conferences. His research interests include mobile communication (especially privacy and security issues), protocol engineering, and automated protocol implementation.



**Miroslaw Malek** is professor and holder of Chair in Computer Architecture and Communication at the Department of Computer Science at Humboldt University in Berlin. His research interests focus on dependable distributed systems including failure prediction and service availability. He authored and co-authored over 150 publications and founded, organized and co-organized numerous workshops and conferences. Malek received his PhD in Computer Science from the Technical University of Wroclaw in Poland, spent 17 years as professor at the University of Texas at Austin and was also, among others, visiting professor at Stanford, and guest researcher at Bell Laboratories and IBM T.J. Watson Research Center.



**Saverio Mascolo** is currently associate professor at the Electrical and Electronics Department of Politecnico di Bari. He has been post-doc and visiting researcher at University of California, Los Angeles (UCLA), respectively in 1995 and 1999. Since 2001 he is external academic consultant at Uppsala University, Sweden. He has held invited positions at INRIA Sophia Antipolis, France, and at FTW Wien, Austria. He has authored or co-authored more than 100 papers in international journals, books or conferences. His research interests focus on congestion control in data networks, end-to-end protocols for multimedia traffic, QoS support over the wired and wireless Internet, Voice and Video over IP, peer-to-peer systems and overlay networks. He has also published in nonlinear control of chaotic systems, cryptography methods based on chaotic systems and observer design, backstepping nonlinear control, discrete-event control and deadlock avoidance using digraphs.



**Paulo Mendes** received his B.Sc. degree in informatics engineering from the University of Coimbra in 1993, his M.Sc. degree in electrical and computer engineering from the Technical University of Lisbon in 1998, and his Ph.D. in informatics engineering from the University of Coimbra in 2003. During his Ph.D. studies he spent 3 years as a visiting scholar at Columbia University. From 1993 he participated in several European projects and actions such as COST263, Telematics Applications/Safety-net, COST290, and IST Ambient Networks. From 1996 to 2003, he was a researcher at the Laboratory of Communications and Telematics (LCT) of the Research Center of the University of Coimbra (CISUC). From 2003 he is a Senior Researcher at NTT DoCoMo Euro-labs. His major research interests are in the field of Internet architecture for QoS-aware multi-homed and mobile systems, Broadband wireless mesh networks, and multi-system communications. He is a member of IEEE and a contributor to IETF.



**Ioanis Nikolaidis** is an Associate Professor with the Computing Science Department at the University of Alberta. He was born in Serres, Greece, in 1967. He received his B.Sc. from the University of Patras, Greece, in 1989 and his M.Sc. and Ph.D. from the Computer Science Department at Georgia Tech in 1991 and 1994, respectively. Between 1994 and 1996 he worked for the European Computer-Industry Research Center in Munich, Germany, in the area of distributed computing. He joined the University of Alberta in January 1997. He has published more than sixty articles in books, journals, and conference proceedings in the area of computer networking. His research interest range from network modeling and simulation, to large scale data delivery systems, to mobile and secure networking. Since 1999 he has been a member of the editorial board (and is currently the Editor in Chief) of the IEEE Network magazine, where he was also the column editor for New Books & Multimedia until 2006 and the guest co-editor of the special issue on "Web Performance".

Since 2000 he has been a member of the editorial board for the Computer Networks journal (Elsevier). He guest co-edited the Computer Networks journal special issue on "Wireless Local Networks". He has served in the technical program committees of numerous conferences, including ICC, Globecom, INFOCOM, LCN, IPCCC, PerCom, IFIP Networking, and CNSR. He is in the steering committee of WLN (co-located annually with IEEE LCN) and in the steering committee of the ADHOCNOW conference. He was the conference co-chair of ADHOCNOW 2004. He is a member of IEEE and ACM.



**Guevara Noubir** holds an MS (Engineering Diploma) in CS from the INPG-ENSIMAG, France in 1991, and a PhD from EPFL in 1996. Professor Noubir joined Northeastern University in 2001. His research covers both theoretical and practical aspects of secure and robust wireless communication systems. He is a recipient of the NSF CAREER Award, and is funded by DARPA, Draper Laboratory, Microsoft Research, and NSA. From 1997 to 2000, he was a senior research scientist at the Real-Time Software and Networking Group at the Swiss Center for Electronics and Microtechnology, and led several research projects in the area of wireless systems and secure networking. He contributed to the definition of the third generation Universal Mobile Telecommunication System (UMTS) which led to the 3GPP WCDMA standard. He also worked on the optimization of Internet protocols for satellite links. Guevara Noubir is a senior member of the IEEE and member of the ACM.



**Jaudelice Cavalcante de Oliveira** received her B.S.E.E. degree from Universidade Federal do Ceara (UFC), Ceara, Brazil, in December 1995. She received her M.S.E.E. degree from Universidade Estadual de Campinas (UNICAMP), Sao Paulo, Brazil, in February 1998, and her Ph.D. degree in Electrical and Computer Engineering from the Georgia Institute of Technology in May 2003. Dr. de Oliveira joined the Department of Electrical and Computer Engineering at Drexel University in 2003 where she is currently an assistant professor. Her research interests include the development of new protocols and policies to support fine grained quality of service provisioning in the future Internet, traffic engineering techniques, and the design of solutions for efficient routing in ad-hoc and sensor networks.



**Theodoros Salonidis** is a research staff member at Intel Research Cambridge, UK. During 2004-2006, he was a Post-doctoral Research Associate in the Department of Electrical and Computer Engineering at Rice University. He received the Diploma in Electronic and Computer Engineering from the Technical University of Crete, Greece in 1997 and the M.S. and Ph.D. degrees in Electrical and Computer Engineering from the University of Maryland, College Park in 1999 and 2004, respectively. During one year (1999-2000) he was a Research Intern at IBM T.J. Watson Research Center, New York. His current research interests include modeling, performance evaluation, resource allocation, and Quality of Service provisioning in wireless networks. He is a member of IEEE, ACM, and the Technical Chamber of Greece.



**Dimitrios N. Serpanos** is a Professor at the Department of Electrical and Computer Engineering, University of Patras, Greece. He holds a Ph.D. in Computer Science from Princeton University, USA (1990) and a Diploma in Computer Engineering and Informatics from the University of Patras (1985). His research interests include high-speed network systems, security systems, multimedia systems and computer architecture. Before joining the University of Patras, Prof. Serpanos was a Research Staff Member at the IBM, T.J. Watson Research Center, USA (1990-1996) and faculty at the Dept. of Computer Science, University of Crete (1996-2000), where he also worked at the Institute of Computer Science of the Foundation for Research and Technology-Hellas (ICS-FORTH). Since September 2000, he is also conducting research at the Industrial Systems Institute (ISI), Patras. Prof. Serpanos is a Senior Member of the IEEE, a member of the New York Academy of Sciences, the ACM, and the Technical Chamber of Greece. He is also an educational member of

USENIX.



**Vasilios A. Siris** received his B.S. (1990) degree in Physics from the University of Athens, Greece, his M.S. (1992) in Computer Science from Northeastern University, Boston, USA, and his Ph.D. (1998) in Computer Science from the University of Crete, Heraklion, Greece. Since November 2002 he is an Assistant Professor at the Department of Computer Science of the University of Crete, and a Research Associate at the Institute of Computer Science of the Foundation for Research and Technology - Hellas (FORTH). During the summers of 2001 and 2006 he was a Research Fellow at British Telecom's Research Labs at Adastral Park, Ipswich, UK, and in May 2001 he was a visitor at the Statistical Laboratory of the University of Cambridge, UK. He is a member of the Management Committee for COST Action 290 "Wi-QoS: Traffic and QoS Management in Wireless Multimedia Networks", where he chairs the Working Group on services, regulation, and economic aspects. His current research interests include traffic control and resource management in wired

and wireless networks, including multi-hop, multi-channel mesh networks, traffic measurement for QoS monitoring, and anomaly and security attack detection, and technologies and architectures for self-configuration and self-management of pervasive networks.



**Paul Spirakis**, born in 1955, obtained his PhD from Harvard University, USA, in 1982. He is currently the Director of the Research Academic Computer Technology Institute (RACTI) and a Full Professor in the Computer Engineering & Informatics Department Patras University, Greece. Was acknowledged between the top 50 scientists worldwide in Computer Science with respect to "The best Nurturers in Computer Science Research", published by B. Kumar and Y.N. Srikant, ACM Data Mining, 2005. His research interests include Algorithms and Complexity and interaction of Complexity and Game Theory. Paul Spirakis has extensively published in most of the important Computer Science journals and most of the significant refereed conferences. He has edited various conference proceedings and is currently an editor of many significant scientific journals. He has published two books through Cambridge University Press and 8 books in Greek. He was elected unanimously as one of the two Vice Presidents of the Council of the EATCS. He consults for the Greek

State, the European Union and several major Greek Computing Industries.



**Burkhard Stiller** studied computer science and received his doctoral degree from the University of Karlsruhe, Germany in 1994. He has been a Research Assistant there with the Institute of Telematics, being on leave for an EC Research Fellowship at the University of Cambridge, Computer Laboratory, England. After being a professor for communication systems with the Swiss Federal Institute of Technology ETH Zürich, Switzerland and with the University of Federal Armed Forces, Munich, Germany, he founded in 2004 the Communication Systems Group at the University of Zürich, Switzerland. Besides a number of project management tasks and participations in national and international research projects of Germany, Switzerland, and the UK, his primary research interests today include charging and accounting, Internet protocols and security, peer-to-peer systems, and network management.



**Ivan Stojmenovic** received Ph.D. degree in mathematics. He held positions in Serbia, Japan, USA, Canada, France and Mexico. He published over 200 different papers, and edited four books on wireless, ad-hoc and sensor networks and applied algorithms with Wiley/IEEE. He is currently editor of several journals including IEEE TPDS, ACM Wireless Networks, and founder and editor-in-chief of three journals (Journal of Multiple-Valued Logic and Soft Computing, International Journal of Parallel, Emergent and Distributed Systems, and Ad Hoc & Sensor Networks, An International Journal). Stojmenovic is in the top 0.56% most cited authors in Computer Science (Citeseer 2006). One of his articles was recognized as the Fast Breaking Paper, for October 2003 (as the only one for all of computer science), by Thomson ISI Essential Science Indicators. He chaired and/or organized >30 workshops and conferences, and served in about 100 program committees since 2004. Among others, he was/is program co/vice-chair at IEEE AINA-07, IEEE MASS-04 and -07, EUC-05, WONS-05, MSN-05 and -06, ISPA-05 and -07, co-chaired workshops at IEEE MASS-06, IEEE ICDCS 2003-2007; IEEE LCN-05-06, and was program committee member at ACM Mobihoc-06, ACM Mobicom-06, IEEE ICC-07, IEEE WOWMOM-06, IEEE PerCom-06, IEEE GlobeCom-06, IEEE LCN-06, IEEE INFOCOM-05.



**Vassilis Tsaoussidis** received a B.Sc. in Applied Mathematics from Aristotle University, Greece; a Diploma in Statistics -and Computer Science from the Hellenic Institute of Statistics; and a Ph.D. in Computer Networks from Humboldt University, Berlin, Germany (1995). Vassilis held faculty positions in Rutgers University, New Brunswick, SUNY Stony Brook and Northeastern University, Boston. In May 2003, Vassilis joined the Department of Electrical and Computer Engineering of Demokritos University, Greece. His research interests lie in the area of transport/network protocols, i.e. their design aspects and performance evaluation. Vassilis is an editor for IEEE Transactions in Mobile Computing, the Journal of Computer Networks, the Journal of Wireless Communications and Mobile Computing, the Journal of Mobile Multimedia, and the Journal of Parallel Emergent and Distributed Systems. He is in the steering committee of WWIC; he chaired several conferences, and participated in several Technical Program Committees in his area of expertise, such as INFOCOM, Networking, Globecom, and several others.



**Theodora A. Varvarigou** received the B. Tech degree from the National Technical University of Athens, Athens, Greece in 1988, the MS degrees in Electrical Engineering (1989) and in Computer Science (1991) from Stanford University, Stanford, California in 1989 and the Ph.D. degree from Stanford University as well in 1991. She worked at AT&T Bell Labs, Holmdel, New Jersey between 1991 and 1995. Between 1995 and 1997 she worked as an Assistant Professor at the Technical University of Crete, Chania, Greece. Since 1997 she is working as an Associate Professor at the National Technical University of Athens. Her research interests include Grid Technologies parallel algorithms and architectures, embedded applications, fault-tolerant computation, optimisation algorithms and content management.



**Thiemo Voigt** is a researcher at the Swedish Institute of Computer Science where he leads the Networked Embedded Systems Group. The group is among the leading European research groups in wireless sensor networks. Thiemo Voigt received his Ph.D. in Computer Systems from the University of Uppsala in 2002 and his Diploma degree from the University of Stuttgart. Thiemo's research interests include networked embedded systems and wireless sensor networks as well as web server performance and overload protection.



**Adam Wolisz** (Diploma in engineering, 1972, Doctoral Degree, 1976, Habilitation 1983 – Silesian University of Technology, Gliwice) works since 1980 on computer networks and distributed systems. He has been with Polish Academy of Sciences (until 1990), and later with the Research Institute GMD-Fokus in Berlin (1990-1993). Since 1993 he has joined the Technische Universität Berlin (TUB) where he is chaired Professor for Telecommunication Networks and since 2001 Executive Director of the Institute for Telecommunication Systems. He has served as the Dean of the Faculty of Electrical Engineering and Computer Science in the period 2001- 2003. Since Summer 2005 he is also Adjunct Professor at the Dept. EE&CS, University of California, Berkeley. His research interests are in architectures and protocols of communication networks. Recently he is focusing mainly on wireless/mobile networking and sensor networks.



**Xue Yang** received the BE degree and the MS degree from the University of Electronic Science and Technology of China, and the PhD degree from the University of Illinois at Urbana-Champaign (UIUC). She is currently a senior research scientist in the Corporation Technology Group at Intel Corporation. Her current research interests are in the areas of wireless networking and mixed networks. She was a recipient of the Vodafone-US Foundation Graduate Fellowship from 2003 to 2005. She is a member of the IEEE.



**Chi Zhang** is a Senior Kernel Engineer at Juniper Networks. He was an Assistant Professor of Computer Science at Florida International University from 2003 to 2006. He received the B.E. degree in Electronic Engineering from Shanghai Jiao Tong University, China, in 1996, and the Ph.D. degree in Computer Science from Northeastern University, Boston, MA, in 2003. Dr. Zhang's research interests lie in the areas of network protocols, congestion control, mobile computing and QoS. He has published 23 papers and issued 1 US patent. He has served on a number of program committees of networking conferences. Dr. Zhang received the runner-up award in the 7<sup>th</sup> IEEE Symposium on Computers and Communications (ISCC 2002), and is a member of the Phi Kappa Phi Honor Society.