

Editors:

Prof. Nikos E. Mastorakis, Technical University of Sofia, BULGARIA

Prof. Manoj Jha, Univ. of Baltimore, USA

Prof. Valeri Mladenov, Technical University of Sofia, BULGARIA

Prof. Zoran Bojkovic, Technical University of Belgrade, SERBIA

Prof. Stamatios Kartalopoulos, University of Oklahoma, USA

RECENT ADVANCES IN CULTURAL HERITAGE and TOURISM

RECENT ADVANCES IN CULTURAL HERITAGE and TOURISM

Proceedings of the 2nd WSEAS International Conference
on CULTURAL HERITAGE and TOURISM (CUHT '09)

Rodos (Rhodes) Island, Greece, July 22-24, 2009

Mathematics and Computers in Science Engineering
A Series of Reference Books and Textbooks

ISBN: 978-960-474-103-8

ISSN: 1790-2769

Published by WSEAS Press

www.wseas.org





CENTRO DE INVESTIGAÇÃO SOBRE
ESPAÇO E ORGANIZAÇÕES



Recent Advances in CULTURAL HERITAGE and TOURISM

Proceedings of the 2nd WSEAS International Conference on
CULTURAL HERITAGE and TOURISM (CUHT '09)

Rodos, Greece
July 22-24, 2009

Mathematics and Computers in Science Engineering
A Series of Reference Books and Textbooks

Published by WSEAS Press
www.wseas.org

ISSN: 1790-2769
ISBN: 978-960-474-103-8

Recent Advances in CULTURAL HERITAGE and TOURISM

Proceedings of the 2nd WSEAS International Conference on CULTURAL HERITAGE and TOURISM (CUHT '09)

Rodos, Greece, July 22-24, 2009

Mathematics and Computers in Science Engineering
A Series of Reference Books and Textbooks

Published by WSEAS Press
www.wseas.org

Copyright © 2009, by WSEAS Press

All the copyright of the present book belongs to the World Scientific and Engineering Academy and Society Press. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the Editor of World Scientific and Engineering Academy and Society Press.

All papers of the present volume were peer reviewed by two independent reviewers. Acceptance was granted when both reviewers' recommendations were positive.
See also: <http://www.worldses.org/review/index.html>

ISSN: 1790-2769
ISBN: 978-960-474-103-8



World Scientific and Engineering Academy and Society

Recent Advances in CULTURAL HERITAGE and TOURISM

**Proceedings of the 2nd WSEAS International Conference on
CULTURAL HERITAGE and TOURISM (CUHT '09)**

**Rodos, Greece
July 22-24, 2009**

Editors:

Prof. Nikos E. Mastorakis, Technical University of Sofia, BULGARIA

Prof. Manoj Jha, Univ. of Baltimore, USA

Prof. Valeri Mladenov, Technical University of Sofia, BULGARIA

Prof. Zoran Bojkovic, Technical University of Belgrade, SERBIA

Prof. Stamatios Kartalopoulos, University of Oklahoma, USA

International Program Committee Members:

Abir Kassem, EGYPT

Agita Livina, LATVIA

Ahadollah A'zami, IRAN

Androniki Tsouchlaraki, GREECE

Ang-cheng kris Ho, TAIWAN

Asghar Mohammad Moradi, IRAN

Azami Zaharim, MALAYSIA

Blaise Nsom, FRANCE

Bruno Grbac, CROATIA (HRVATSKA)

Claudio Guarnaccia, ITALY

Cruceanu Catalin, ROMANIA

David Greiner, SPAIN

Dimitrios Pavlou, GREECE

Enrique Arias, SPAIN

Faridatulazna Ahmad Shahabuddin,

MALAYSIA

Gavriletea Marius, ROMANIA

Gherghinescu Sorin, ROMANIA

Horatiu Teodorescu, ROMANIA

Khan Amanat, BANGLADESH

Kuei-Yang Wu, TAIWAN

M.Reza Emami Azadi, IRAN

Madalina Calbureanu, ROMANIA

Manoj Jha, UNITED STATES

Matthew Karlaftis, GREECE

Michelle Duffy, AUSTRALIA

Mircea Badescu, ROMANIA

Murude Celikag, CYPRUS

Roxana Marinescu, ROMANIA

Saeed-Reza Sabbagh Yazdi, IRAN

Seyed Yousef Sadjadi, UNITED KINGDOM

Shahriar Quayyum, BANGLADESH

Slavka Zekovic, SERBIA

Smaranda Adina Cosma, ROMANIA

Sonia Degeratu, ROMANIA

Vassilis Gekas, GREECE

Xin Wang, CHINA

Preface

This year the 2nd WSEAS International Conference on CULTURAL HERITAGE and TOURISM (CUHT '09) was held in Rodos, Greece, in July 22-24, 2009. The Conference remains faithful to its original idea of providing a platform to discuss archaeological sites and excavations, museums, monuments and maintenance, architecture, sculpture, literature, sustainable tourism, tourism planning and modelling, culture, art, civilization, urban tourism, rural tourism etc. with participants from all over the world, both from academia and from industry.

Its success is reflected in the papers received, with participants coming from several countries, allowing a real multinational multicultural exchange of experiences and ideas.

The accepted papers of this conference are published in this Book that will be indexed by ISI. Please, check it: www.worldses.org/indexes as well as in the CD-ROM Proceedings. They will be also available in the E-Library of the WSEAS. The best papers will be also promoted in many Journals for further evaluation.

A Conference such as this can only succeed as a team effort, so the Editors want to thank the International Scientific Committee and the Reviewers for their excellent work in reviewing the papers as well as their invaluable input and advice.

The Editors

Table of Contents

Keynote Lecture 1: Embedded Systems Design – Scientific Challenges and Work Directions <i>Joseph Sifakis</i>	9
Keynote Lecture 2: Quantum Cryptography and Chaos Functions: The Ultimate for Network Security <i>Stamatios Kartalopoulos</i>	10
Keynote Lecture 3: Content-Adaptive Efficient Resource Allocation for Packet-Based Video Transmission <i>Aggelos K. Katsaggelos</i>	11
Keynote Lecture 4: Computer Aided-Visual Perception : Challenges and Perspectives <i>Nikos Paragios</i>	12
Keynote Lecture 5: Control and Estimation Theory: Current Trends, New Challenges, & Directions for the Future <i>Lena Valavani</i>	13
Private Productive Investment and Developmental Incentives <i>Vassiliki Delitheou</i>	15
One Ex Post Evaluation of the Application Contingent Valuation Method: the Case of the Former Lake Karla, Greece <i>Efstathios Koutseris</i>	21
A Strategic Diagnosis of Religious Tourism in Romania <i>Magdalena Vorzsak, Carmen Maria Gut</i>	29
Istro-Romanians: a Study of Culture Identity and Environmental Dynamic <i>Georgeta Marghescu</i>	35
The Specificity of the County of Rupea Within Romania’s Cultural Legacy <i>Mariana Borcoman</i>	39
Online Distribution Services in the Hospitality Industry in the City of Cluj-Napoca, Romania <i>Mihaela Tutunea, Valentin Toader, Rozalia Veronica Rus</i>	45
Analysis of the Main Romanian Cultural Tourism Products <i>Adina Negrusa, Smaranda Cosma, Oana Gica</i>	51
To Trust or not to Trust: the Influence of Regional Culture on Economic Behavior in an EU-Non EU Trust Game <i>Larissa-Margareta Batrancea</i>	57
The Influence of Regional Culture on Economic Behavior in An Eu-Non Eu Public Goods Game <i>Larissa-Margareta Batrancea</i>	62
Impact of Sibiu European Capital of Culture 2007 Event on Country Tourism <i>Smaranda Cosma, Adina Negrusa, Cristina Popovici</i>	68

Investigating Cultural Tourism Development and Attractiveness in Transylvania, Romania. a Focus on the Counties of Cluj and Sibiu <i>Alexandra Viorica Dulau, Monica Maria Coros</i>	74
MIS-GIS Application for the Economic Regeneration, Recover and Conservation of the Historical Centers <i>Vincenzo Barrile, Giuseppe Armocida, Francesco Di Capua</i>	80
The Role of Geographic Information System in the Project “the Archaeological Paper of the City of Reggio Calabria” <i>Vincenzo Barrile, Giuseppe Armocida, Mario Cafaro</i>	85
Mapping the Doctoral Theses Awarded by the Egyptian Tourism Colleges, 1975 – 2008 <i>Galal M. Hamza</i>	91
The Tourist Destination – the Competitive Tourist Unit on the Future Market of Tourism <i>Melinda Candea, Felicia-Aurelia Stancioiu, Mirela Mazilu, Roxana Cristina Marinescu</i>	101
Changes in the Development of European Tourism During 1990-2004 <i>Liliana Duguleana, Constantin Duguleana</i>	107
Towards a Community-Oriented Map-Based Portal for Cultural Heritage <i>Boyan Bontchev</i>	113
Authors Index	120

Keynote Lecture 1

Embedded Systems Design – Scientific Challenges and Work Directions



Professor Joseph Sifakis
Verimag & ARTIST2 NoE
Centre Equation
2 avenue de Vignate
38610 GIERES, FRANCE
E-mail: Joseph.Sifakis@imag.fr

Abstract: The development of a satisfactory Embedded Systems Design Science provides a timely challenge and opportunity for reinvigorating Computer Science. Embedded systems are components integrating software and hardware jointly and specifically designed to provide given functionalities, which are often critical. They are used in many applications areas including transport, consumer electronics and electrical appliances, energy distribution, manufacturing systems, etc. Embedded systems design requires techniques taking into account extra-functional requirements regarding optimal use of resources such as time, memory and energy while ensuring autonomy, reactivity and robustness. Jointly taking into account these requirements raises a grand scientific and technical challenge: extending Computer Science with paradigms and methods from Control Theory and Electrical Engineering. Computer Science is based on discrete computation models not encompassing physical time and resources which are by their nature very different from analytic models used by other engineering disciplines. We summarize some current trends in embedded systems design and point out some of their characteristics, such as the chasm between analytical and computational models, and the gap between safety critical and best-effort engineering practices. We call for a coherent scientific foundation for embedded systems design, and we discuss a few key demands on such a foundation: the need for encompassing several manifestations of heterogeneity, and the need for design paradigms ensuring constructivity and adaptivity. We discuss main aspects of this challenge and associated research directions for different areas such as modeling, programming, compilers, operating systems and networks.

Brief Biography of the Speaker: Joseph Sifakis is a CNRS researcher and the founder of Verimag laboratory (<http://www-verimag.imag.fr/>), in Grenoble, France. He holds the INRIA-Schneider endowed industrial chair since September 1st 2008. He studied Electrical Engineering at the Technical University of Athens and Computer Science at the University of Grenoble. Verimag is a leading research laboratory in the area of critical embedded systems. It developed the underlying theory and technology for the SCADE tool, used by Airbus for the design and validation of its critical real-time systems, and is becoming a de facto standard for aeronautics. Verimag has a lasting and strategic collaboration with ST Microelectronics, France Telecom R&D, and Airbus, through which numerous results on validation and testing have been transferred. Joseph Sifakis is recognized for his pioneering work on both theoretical and practical aspects of Concurrent Systems Specification and Verification. He contributed to emergence of the area of model-checking, currently the most widely-used method for the verification of industrial applications. His current research activities include component-based design, modeling, and analysis of real-time systems with focus on correct-by-construction techniques (<http://www-verimag.imag.fr/~sifakis/>). Joseph Sifakis has broad experience with industry, notably through joint projects with partners such as Astrium, the European Space Agency, France Telecom, ST Microelectronics and he has also been active for many years in consulting. Joseph Sifakis is the Scientific Coordinator of the European Network of Excellence ARTIST2 on Embedded Systems Design. (<http://www.artist-embedded.org/>). This network gathers 35 of the best European teams in the area, and aims to produce innovative results for cost-effective design of dependable embedded systems. It will also promote innovative methods safe and secure systems, notably through cooperation with key European industrial partners such as Thales, Airbus, Ericsson, Philips, and ST Microelectronics. Joseph Sifakis is the director of the CARNOT Institute "Intelligent Software and Systems" in Grenoble (<http://www.carnot-lsi.com/>). Joseph Sifakis is a member of the editorial board of several journals, co-founder of the International Conference on Computer Aided Verification (CAV) and a member of the Steering Committee of the EMSOFT (Embedded Software) conference. He is a member of Academia Europea (<http://www.acadeuro.org/>) and a member of the French National Academy of Engineering (<http://www.academie-technologies.fr/>).

Joseph Sifakis has received with Ed Clarke and Allen Emerson for their contribution to Model Checking, the Turing Award for 2007 (<http://awards.acm.org/homepage.cfm?srt=all&awd=140>). He is also the recipient of the CNRS Silver Medal in 2001.

Keynote Lecture 2

Quantum Cryptography and Chaos Functions: The Ultimate for Network Security



Professor Stamatios Kartalopoulos

Williams Professor in Telecommunications Networking

The University of Oklahoma

USA

Email: Kartalopoulos@ou.edu

Abstract: As the sophistication of intruders' increases, so does the incidents of information integrity breaches and network attacks. In response, very complex cryptographic processes have started being employed, such as chaos theory and quantum theory, in an effort to create the "holy grail" of cryptographic systems and network security.

Quantum theory defines the non-classical qubit, which is the superposition of quantum states having no classical analog. In addition, it is based on the "no cloning" or "no copying" theorem and on Heisenberg's uncertainty. Both, the qubit and the no-cloning theorem, along with the quantum-mechanical properties of photons, have been applied to a new breed of cryptography and secure optical communication networks known as quantum cryptography and quantum networks, respectively.

Chaos is based on the particular behavior of certain non-linear functions, which for a minute change of parameters produce a very large and unstable output, known as the "chaotic regime". However, this chaos is reproducible, which also makes it attractive to secure communications.

In this talk we explain quantum cryptographic protocols as well as chaos and chaotic processes with simple examples. We then describe how chaos functions are used in quantum cryptography in order to increase efficiency and speed of the quantum key establishment.

Brief Biography of the Speaker: Stamatios V. Kartalopoulos, PhD, is currently the Williams Professor in Telecommunications Networking at the University of Oklahoma. His research emphasis is on optical communication networks (FSO, long haul and FTTH), optical technology including optical metamaterials, and optical communications security including quantum cryptography and key distribution. Prior to this, he was with Bell Laboratories where he defined, led and managed research and development teams in the areas of DWDM networks, SONET/SDH and ATM, Cross-connects, Switching, Transmission and Access systems. He has received the President's Award and many awards of Excellence.

He holds nineteen patents in communications networks, and has published more than hundred fifty scientific papers, nine reference textbooks important in advanced fiber optic communications and security, and has also contributed several chapters to other books.

He has been an IEEE and a Lucent Technologies Distinguished Lecturer and has lectured at international Universities, at NASA and conferences. He has been keynote speaker of major international conferences, has moderated executive forums, has been a panelist of interdisciplinary panels, and has organized symposia, workshops and sessions at major international communications conferences.

Dr Kartalopoulos is an IEEE Fellow, chair and founder of the IEEE ComSoc Communications & Information Security Technical Committee, member at large of IEEE New Technologies Directions Committee, and has served editor-in-chief of IEEE Press, chair of ComSoc Emerging Technologies and of SPCE Technical Committees, Area-editor of IEEE Communications Magazine/Optical Communications, member of IEEE PSPB, and VP of IEEE Computational Intelligence Society.

Keynote Lecture 3

Content-Adaptive Efficient Resource Allocation for Packet-Based Video Transmission



Professor Aggelos K. Katsaggelos

Department of EECS
Northwestern University
Evanston, Illinois
USA

E-mail: aggk@ece.northwestern.edu

Abstract: Supporting video communication over lossy channels such as wireless networks and the Internet is a challenging task due to the stringent quality of service (QoS) required by video applications and the many channel impairments. Two important QoS characteristics for video are the degree of signal distortion and the transmission delay. Another important consideration is the cost associated with transmission, for example, the energy consumption in the wireless channel case and the cost for differentiated services in the Internet (with DiffServ) case.

In this presentation we consider the joint adaptation of the source coding parameters, such as the quantization step-size and prediction mode, along with the physical layer resources, such as the transmission rate and power. Our goal is to provide acceptable QoS while taking into account system constraints such as the energy utilization. We discuss a general framework that allows a number of "resource/distortion" optimal formulations for balancing the requirements of different applications. We conclude the presentation with some of the grand opportunities and challenges in designing and developing video communication systems.

Brief Biography of the Speaker: Aggelos K. Katsaggelos received the Diploma degree in electrical and mechanical engineering from the Aristotelian University of Thessaloniki, Greece, in 1979 and the M.S. and Ph.D. degrees both in electrical engineering from the Georgia Institute of Technology, in 1981 and 1985, respectively. In 1985 he joined the Department of Electrical Engineering and Computer Science at Northwestern University, where he is currently professor. He is also the Director of the Motorola Center for Seamless Communications and a member of the Academic Affiliate Staff, Department of Medicine, at Evanston Hospital.

Dr. Katsaggelos is a member of the Publication Board of the IEEE Proceedings, the IEEE Technical Committees on Visual Signal Processing and Communications, and Multimedia Signal Processing, the Editorial Board of Academic Press, Marcel Dekker: Signal Processing Series, Applied Signal Processing, and Computer Journal. He has served as editor-in-chief of the IEEE Signal Processing Magazine (1997-2002), a member of the Publication Boards of the IEEE Signal Processing Society, the IEEE TAB Magazine Committee, an Associate editor for the IEEE Transactions on Signal Processing (1990-1992), an area editor for the journal Graphical Models and Image Processing (1992-1995), a member of the Steering Committees of the IEEE Transactions on Image Processing (1992-1997) and the IEEE Transactions on Medical Imaging (1990-1999), a member of the IEEE Technical Committee on Image and Multi-Dimensional Signal Processing (1992-1998), and a member of the Board of Governors of the IEEE Signal Processing Society (1999-2001). He is the editor of Digital Image Restoration (Springer-Verlag 1991), coauthor of Rate-Distortion Based Video Compression (Kluwer 1997), co-editor of Recovery Techniques for Image and Video Compression and Transmission, (Kluwer 1998), and co-author of Super-Resolution for Images and Video, (Morgan and Claypool, 2007), and co-author of Joint Source-Channel Video Transmission (Morgan and Claypool 2007). He was the holder of the Ameritech Chair of Information Technology (1997-2003), and he is the co-inventor of twelve international patents, a Fellow of the IEEE (1998) and SPIE (2009), and the recipient of the IEEE Third Millennium Medal (2000), the IEEE Signal Processing Society Meritorious Service Award (2001), an IEEE Signal Processing Society Best Paper Award (2001), an IEEE ICME Best Paper Award (2006), and an IEEE ICIP Paper Award (2007). He was a Distinguished Lecturer of the IEEE Signal Processing Society for 2007-2008.

Keynote Lecture 4

Computer Aided-Visual Perception : Challenges and Perspectives



Professor Nikos Paragios

Ecole Centrale de Paris / INRIA Saclay, Ile-de-France
France

E-mail: nikos.paragios@ecp.fr

Abstract: Computer aided human perception aims at developing intelligent algorithms towards understanding visual cues coming from images, video, or other means of gathering visual information. Such a process often consists of three stages, initially the problem of perception is parameterized through a mathematical model where the estimation of its parameters will lead to visual understanding. Then, the model is associated with the available observations through the definition of an objective function and last, this function is optimized using computational methods. The main challenges that one has to address in this context is the curses of dimensionality, non-linearity, non-convexity and modularity. In simple words, even the simplest possible perception problem could involve too many parameters where the association between the data and them is not straightforward and is done through non-convex functions. In this talk, we will present a generic mathematical framework that exploits recent advances in discrete optimization to address computational visual perception. Numerous image processing, computer-aided diagnosis and computer vision applications will be considered to demonstrate the potentials of this method.

Brief Biography of the Speaker: Nikos Paragios (<http://vision.mas.ecp.fr>) obtained his B.Sc. (highest honors, valedictorian) and M.Sc. (highest honors) in Computer Science from the University of Crete (Greece) [1994,1996], his Ph.D. in electrical and computer engineering from I.N.R.I.A. [2000] and his D.Sc. (Habilitation a Diriger de Recherches) from the University of Nice/Sophia Antipolis (France) [2005]. He is professor of applied mathematics at the Ecole Centrale de Paris - one of most exclusive engineering schools "Grande Ecoles" - leading the Medical Imaging and Computer Vision Group. He is also affiliated with INRIA Saclay Ile-de-France, the French Research Institute in Informatics and Control heading the GALEN group. Prior to that he was professor/(2004-2005) at the Ecole Nationale de Ponts et Chaussees, affiliated with Siemens Corporate Research (Princeton, NJ, 1999-2004) as a project manager, senior research scientist and research scientist. In 2002 he was an adjunct professor at Rutgers University and in 2004 at New York University. N. Paragios was a visiting professor at Yale University in 2007. Professor Paragios has co-edited four books, published more than hundred papers (DBLP server) in the most prestigious journals and conferences of medical imaging and computer vision, gave more than hundred invited lectures, and has twelve US issued patents and more than twenty pending. His work has approx 3,500 citations in googlescholar and approx 2,000 in scopus, and his H-number according to scholar is 28 and 24 according to scopus. He is a Senior member of IEEE, associate editor for the IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), area editor for the Computer Vision and Image Understanding Journal (CVIU) and member of the Editorial Board of the International Journal of Computer Vision (IJCV), the Medical Image Analysis Journal (MedIA) and the Journal of Mathematical Imaging and Vision (JMIV). Professor Paragios is one of the program chairs of the 11th European Conference in Computer Vision (ECCV'10, Heraklion, Crete). In 2008 N. Paragios was the laureate of one of Greece's highest honor for young academics and scientists of nationality or descent (world-wide), the Bodossaki Foundation Prize in the field of applied sciences. In 2006, he was named one of the top 35 innovators in science and technology under the age of 35 from the MIT's Technology Review magazine. He and his collaborators were the recipients of numerous scientific rewards, like for example the Francois Erbsmann prize for the IPMI'07 conference. His research interests are in the areas of computer vision, medical image analysis and human-computer interaction.

Keynote Lecture 5

Control and Estimation Theory: Current Trends, New Challenges, & Directions for the Future



Professor Lena Valavani

Fellow, American Institute of Aeronautics and Astronautics

Laboratory for Information and Decision Systems

Massachusetts Institute of Technology

Cambridge, MA 02139 U.S.A.

E-mail: valavani@mit.edu

Abstract: Despite the tremendous strides witnessed in the Control and Estimation of lumped parameter systems, whether linear or nonlinear, the issue of stability and performance robustness under simultaneous structured and unstructured uncertainty still remains largely unresolved. When fault tolerance, autonomy and reactivity are added to the requirements, this presents an additional challenge. 'Closed form' solutions are in most cases not possible and computational methods (optimization based, search, etc.) do not provide the necessary guarantees.

The challenges become even greater in the case of distributed systems and networks, such as large industrial/manufacturing plants, environmental applications (CO₂ sequestration), communications networks, traffic networks (aeronautical, highway), space networks (satellite constellations), biomedical applications (CNS studies) which, by their nature, require control and estimation in a distributed setting. Requirements and specifications can also be widely variable between safety critical and socially/economically significant systems.

It becomes increasingly evident that control, communications and computation need to be synergistically combined through a 'universal formalism' and novel paradigms that combine logical operations (symbolic reasoning and decision making) with analytical constructs (mathematical algorithms) and continuous quantities (throughput, subsystem interconnections), in order to handle heterogeneity, asynchronicity, real time functionality, properties that typically characterize distributed systems/networks.

We focus on some representative examples to elucidate key issues that arise in modeling, algorithm design, computation, in order to ensure robustness, fault tolerance, autonomy and even reactivity of distributed systems/networks, that point to the need for total synergy of Control, Communications, and Computation/Computer Science- to meet today's and future challenges.

Brief Biography of the Speaker: Lena Valavani holds her B.S. in Physics, from Barnard College, Columbia University, and the M.S., M.Phil. and Ph.D degrees in Engineering and Applied Science from Yale University. After postdoctoral positions at Yale and MIT's Laboratory for Information and Decision Systems, she joined the Department of Aeronautics and Astronautics, MIT, where she was Boeing Associate Professor. She also served as Chief Scientist, Systems Engineering, U.S. D U.S. Department of Transportation for four years. She is currently president of Hellenic Space Systems, S.A.

Dr. Valavani served as Associate Editor of IEEE Transactions of Automatic Control, Automatica, AIAA Journal of Guidance, Navigation and Control, and the International Journal on Robust and Nonlinear Control. She was elected to the Board of Directors, AIAA, N.E., and served as General Secretary. She also was for a long time a member of the steering committee of the International Physicians for the Prevention of Nuclear War, GBPSR, (1985 Nobel Peace Prize).

Her research interests are in modeling for, and the analysis and synthesis of control systems, estimation and identification, with emphasis on robustness to structured and unstructured uncertainty, fault tolerance and reconfiguration, currently in distributed systems and networks. Her research in the U.S. was supported by NASA, NSF, AFOSR, ONR, and by private industry, resulting in innovative designs of prototype systems currently in operation in the U.S; in Europe by ESA and EC. She has supervised 27 Ph.D and 29 M.S theses at MIT, and 22 M.S. theses at NTUA and UoA.

Dr. Valavani was consultant to Lincoln Laboratory, C.S. Draper Laboratory, and Bell Helicopter while in the U.S. She received the Best Research Paper Award (1991) from the International Gas Turbine Institute and holds three U.S. Patents in the area of controlling unsteady aerodynamic processes in compressors. She is an Associate Fellow of AIAA.

Authors Index

Armocida, G.	80, 85	Gica, O.	51
Barrile, V.	80, 85	Gut, C. M.	29
Batrancea, L.-M.	57 62	Hamza, G. M.	91
Bontchev, B.	113	Koutseris, E.	21
Borcoman, M.	39	Marghescu, G.	35
Cafaro, M.	85	Marinescu, R. C.	101
Candea, M.	101	Mazilu, M.	101
Coros, M. M.	74	Negrusa, A.	51, 68
Cosma, S.	51, 68	Popovici, C.	68
Delitheou, V.	15	Rus, R. V.	45
Di Capua, F.	80	Stancioiu, F.-A.	101
Duguleana, C.	107	Toader, V.	45
Duguleana, L.	107	Tutunea, M.	45
Dulau, A. V.	74	Vorzsak, M.	29