Technological Developments in Networking, Education and Automation

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Springer

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*To our families
Their continuing support makes all our endeavors possible
And
To the memory of Professor Natalia Romalis
Her spirit will always be with us*

Preface

This book includes the proceedings of the 2009 International Conferences on Telecommunications and Networking (TENE 09), Engineering Education, Instructional Technology, Assessment, and E-learning (EIAE 09), and Industrial Electronics, Technology & Automation (IETA 09). TENE 09, IETA 09 and EIAE 09 are part of the International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CISSE 09). The proceedings are a set of rigorously reviewed world-class manuscripts presenting the state of international practice in Industrial Electronics, Automation, Telecommunications, Networking, E-Learning, Instruction Technology, Assessment and Engineering Education.

CISSE 09 was a high-caliber research conference that was conducted online. CISSE 09 received 432 paper submissions and the final program included 220 accepted papers from more than 80 countries, representing the six continents. Each paper received at least two reviews, and authors were required to address review comments prior to presentation and publication.

Conducting CISSE 2009 online presented a number of unique advantages, as follows:

- All communications between the authors, reviewers, and conference organizing committee were done on line, which permitted a short six week period from the paper submission deadline to the beginning of the conference.
- PowerPoint presentations, final paper manuscripts were available to registrants for three weeks prior to the start of the conference
- The conference platform allowed live presentations by several presenters from different locations, with the audio, video and PowerPoint presentations transmitted to attendees throughout the internet, even on dial up connections. Attendees were able to ask both audio and written questions in a chat room format, and presenters could mark up their slides as they deem fit
- The live audio presentations were also recorded and distributed to participants along with the power points presentations and paper manuscripts within the conference DVD.

The conference organizers and we are confident that you will find the papers included in this book interesting and useful.

Khaled Elleithy
Tarek Sobh
Magued Iskander
Vikram Kapila
Mohammad Karim
Ausif Mahmood

Bridgeport, Connecticut
January 2010

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The 2009 International Conferences on Telecommunications and Networking (TENE 09), Engineering Education, Instructional Technology, Assessment, and E-learning (EIAE 09), and Industrial Electronics, Technology & Automation (IETA 09) and the resulting proceedings could not have been organized without the assistance of a large number of individuals. TENE, EIAE, and IETA are part of the International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CISSE). CISSE was founded by Professors Tarek Sobh and Khaled Elleithy in 2005, and they set up mechanisms that put it into action. Andrew Rosca wrote the software that allowed conference management and interaction between the authors and reviewers online. Mr. Tudor Rosca managed the online conference presentation system and was instrumental in ensuring that the event met the highest professional standards. We also want to acknowledge the roles played by Sarosh Patel and Ms. Susan Kristie, our technical and administrative support team.

The technical co-sponsorship provided by the Institute of Electrical and Electronics Engineers (IEEE) and the University of Bridgeport is gratefully appreciated. We would like to express our thanks to Prof. Toshio Fukuda, Chair of the International Advisory Committee and the members of the TENE, EIAE and IETA Technical Program Committees.

The excellent contributions of the authors made these world-class conference proceedings possible. Each paper received two to four reviews. The reviewers worked tirelessly under a tight schedule and their important work is gratefully appreciated. A complete list of reviewers is provided in the book.

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Bridgeport, Connecticut
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