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# Critical Information Infrastructures Security

Third International Workshop, CRITIS 2008  
Rome, Italy, October 13-15, 2008  
Revised Papers



Springer

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# Preface

This volume contains the proceedings of the Third International Workshop on Critical Information Infrastructure Security (CRITIS 2008), which was held October 13–15, 2008 in Villa Mondragone (Rome), Italy, and was co-organized by AIIC (The Italian Society of Critical Infrastructures Experts) and ENEA (The Italian National Agency for New Technology, Energy and the Environment).

This year's workshop was focused on an interdisciplinary and multifaced dialogue about the third millennium security strategies for critical information infrastructures (CII) and their protection (CIP). The aim was to explore the new challenges posed by the CII, bringing together researchers and professionals from universities, private companies and public administrations interested in all security-related aspects, and actively involved in the scientific communities at a national, European and trans-European level.

More than 70 papers were submitted to the conference, which were screened by a very selective double-blind review process to identify the 39 papers selected for presentation, based on their significance, novelty and technical quality. Revisions were not checked and the authors bear full responsibility for the content of their papers.

CRITIS 2008 also had six outstanding invited speakers: Erol Gelenbe (Imperial College, UK), Massoud Amin (University of Minnesota, USA), George Apostolakis (MIT, USA), Andrea Valboni (Microsoft, Italy), Sujeet Shenoi (University of Tulsa, USA) and Angelo Marino (DG Information Society and Media, European Commission).

All the contributions highlight the current development in the field of critical (information) infrastructures and their protection. Specifically they emphasized that the efforts dedicated to this topic are beginning to provide some concrete results. Indeed the main focus has moved from the problem definition toward its formalization, qualification and solution. Some papers illustrated interesting and innovative approaches devoted to understanding, analyzing and modeling a scenario composed of several heterogeneous and interdependent infrastructures. Interesting results were related to vulnerability and risk assessment of the different components of critical infrastructures and more specifically to those of the cyber layer. Furthermore, issues concerning crisis management scenarios for interdependent infrastructures were illustrated. Encouraging preliminarily results were presented about the development of new technological solutions addressing self-healing capabilities of infrastructures, regarded as one of the most promising research topics to improve the resilience of infrastructures.

The relevance assumed by CRITIS conferences was confirmed by the support given by the IEEE and IFIP communities active in CIP, by the patronage offered by the Italian Prime Minister Office and the JRC of the European Commission, as well as by sponsorship provided by Telecom Italia, Microsoft, Theoremathica,

Siemens, IABG, D'Appolonia, and IAS Fraunhofer, to whom we are greatly indebted.

Many people have contributed to the successful organization of the conference and we are really very much obliged to all of them. Among others we need to thank the General Co-chairs Sandro Bologna and Stefanos Gritzalis and the Conference Honorary Chair, Salvatore Tucci. We sincerely thank them for their excellent support, encouragement and for their help in all organizational issues. Our special thanks also go to Emiliano Casalicchio for managing all the organizational and logistical issues as Local Organization Chair, Stefano Panzieri for the preparation and maintenance of the workshop website and all other people who worked together organizing the conference.

CRITIS 2008 thanks the members of the Program Committee and the external reviewers who performed an excellent job during the review process, which is the essence of the quality of the event, and last but not least the authors who submitted papers as well as the participants from all over the world who chose to honor us with their attendance.

April 2009

Roberto Setola  
Stefan Geretshuber

**CRITIS 2008**

## Third International Workshop on Critical Information Infrastructure Security

Villa Mondragone  
Monte Porzio Catone, Rome  
October 13–15, 2008

*Organized by*  
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