



# **DEPEND 2012**

The Fifth International Conference on Dependability

August 19-24, 2012

Rome, Italy

## **DEPEND 2012 Editors**

Syed Naqvi, CETIC, Belgium

Petre Dini, Concordia University, Canada / China Space Agency Center - Beijing,  
China

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2012) by International Academy, Research, and Industry Association (IARIA)  
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2012)

International Academy, Research, and Industry Association (IARIA)  
412 Derby Way  
Wilmington, DE 19810

Phone: (408) 893-6407  
Fax: (408) 527-6351

[petre@iaria.org](mailto:petre@iaria.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

## **DEPEND 1: DEPENDABILITY FACETS**

<b>CGFAIL: A New Approach for Simulating Computer Systems Faults</b> .....	1
<i>Martin Groessl</i>	
<b>Design of Dependable Systems: An Overview of Analysis and Verification Approaches</b> .....	4
<i>Jose Ignacio Aizpurua, Eñaut Muxika</i>	
<b>Dependable Design: Trade-Off Between the Homogeneity and Heterogeneity of Functions and Resources</b> .....	13
<i>Jose Ignacio Aizpurua, Eñaut Muxika</i>	
<b>Security Control Variations Between In-house and Cloud-based Virtualized Infrastructures</b> .....	18
<i>Ramaswamy Chandramouli</i>	

## **DEPEND 2: DEPENDABILITY AND SECURITY**

<b>Towards a State Driven Workload Generation Framework for Dependability Assessment</b> .....	25
<i>Domenico Cotroneo, Francesco Fucci, Roberto Natella</i>	
<b>Improving Consumer Satisfaction Through Building an Allocation Cloud</b> .....	31
<i>Kuo Chen Wu, Hewijin Christine Jiau, Kuo-Feng Ssu</i>	
<b>Design and Implementation of Cloud-based Application for Cloud Provider System with SSL Accelerator and Content Redirection</b> .....	38
<i>Boon Keong Seah</i>	
<b>Author Index</b>	