

ICAS 2014

The Tenth International Conference on Autonomic and Autonomous Systems

April 20 - 24, 2014

Chamonix, France

ICAS 2014 Editors

Mark J. Balas, Embry-Riddle Aeronautical University in Daytona Beach, USA

Wendy Powley, Queen's University - Kingston, Canada

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© (2014) by International Academy, Research, and Industry Association (IARIA) Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2014)

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

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

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 Web: www.proceedings.com

TABLE OF CONTENTS

ICAS 1: MODELING AND MANAGEMENT	
METAMAC, OR WHAT DO I DO NOW? A STRATEGIC PERSPECTIVE ON AUTONOMY	
BEYOND ANOMALIES AND GOALS	1
Don Perlis, Michael T. Cox	
UNMANNED AERIAL VEHICLES & SERVICE-ORIENTED ARCHITECTURE: LARISSA AND KNOWLEDGE BASED FRAMEWORK'S FIRST STUDY	5
Emerson A. Marconato, Douglas Rodrigues, Rajiv Ramdhany, Geoff Coulson	
A FAULT TOLERANCE APPROACH BASED ON REINFORCEMENT LEARNING IN THE	
CONTEXT OF AUTONOMIC OPPORTUNISTIC GRIDS	11
Alcilene Dalília De Sousa, Luciano Reis Coutinho	
USING PERFORMANCE MODELLING FOR AUTONOMIC RESOURCE ALLOCATION	
STRATEGIES ANALYSIS	18
Mehdi Sliem, Nabila Salmi, Malika Ioualalen	
ICAS 2: AUTONOMIC COMPUTING: DESIGN AND MANAGEMENT OPERATION OF ACCUMULATOR-BANK SERVING AGENT SYSTEM USING MACHINE	
LEARNING	25
Gnes Werner-Stark, Tibor Dulai, Katalin M. Hangos	
RESOURCE AWARE WORKLOAD MANAGEMENT FOR AUTONOMIC DATABASE	
MANAGEMENT SYSTEMS	31
Wendy Powley, Patrick Martin, Natalie Gruska, Paul Bird, David Kalmuk	
POLICY FOR DISTRIBUTED SELF-ORGANIZING INFRASTRUCTURE MANAGEMENT IN	
CLOUD DATACENTERS	37
Daniela Loreti, Anna Ciampolini	
EXPERIMENTS WITH NETLOGO FOR DISTRIBUTED CHANNEL ASSIGNMENT IN DENSE	

Vangelis Gazis, Konstantinos Sasloglou, Andreas Merentitis, Kostas Mathioudakis

Author Index