2018 International Workshop on Cyber-Physical Systems for Smart Water Networks (CySWater 2018)

Porto, Portugal
10 April 2018

IEEE Catalog Number: CFP18G99-POD
ISBN: 978-1-5386-6745-3

Copyright © 2018 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number: CFP18G99-POD
ISBN (Print-On-Demand): 978-1-5386-6745-3
ISBN (Online): 978-1-5386-6744-6

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) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

2018 4th International Workshop on Cyber-Physical Systems for Smart Water Networks

CySWater 2018

Table of Contents

Message from the CySWater 2018 Workshop Co-Chairs vii
CySWater 2018 Technical Program Committee viii

Technical Papers

An Improved Tool of Water Data Analytics for Flowmeters Data: Application to the Barcelona Supra-Municipal Distribution Water Network 1
Joseba Quevedo (Universitat Politecnica de Catalunya), Jose Luis Pesantez (Universitat Politecnica de Catalunya), Santiago Espin (ATLL Concessionaria de la Generalitat de Catalunya), Jaume Roquet (ATLL Concessionaria de la Generalitat de Catalunya), and Fernando Valero (ATLL Concessionaria de la Generalitat de Catalunya)

Cyber-Physical Systems for Real-Time Management in the Urban Water Cycle 5
Congcong Sun (Institut de Robòtica I Informàtica Industrial), Gabriela Cembrano (Institut de Robòtica I Informàtica Industrial), Vincenc Puig (Institut de Robòtica I Informàtica Industrial), and Jordi Meseguer (Water Technology Centre)

Developing a Stress-Testing Platform for Cyber-Physical Water Infrastructure 9
Dionysios Nikolopoulos (National Technical University of Athens), Christos Makropoulos (National Technical University of Athens), Dimitrios Kalogeras (National Technical University of Athens), Klio Monokrousou (National Technical University of Athens), and Ioannis Tsoukalas (National Technical University of Athens)

Automated Titration in a Recirculating Water System 12
Roger Chamberlain (Washington University in St. Louis), Chris Edmiston (BECS Technology), and Don Williams (BECS Technology)

Reducing Vulnerability to Cyber-Physical Attacks in Water Distribution Networks 16
Nicolas Nicolaou (KIOS Research and Innovation Center of Excellence), Demetrios G. Eliades (KIOS Research and Innovation Center of Excellence), Christos Panayiotou (KIOS Research and Innovation Center of Excellence), and Marios M. Polycarpou (KIOS Research and Innovation Center of Excellence)

Author Index 21 . . . . . .