# PATTERNS 2019

# Forward

The Eleventh International Conferences on Pervasive Patterns and Applications (PATTERNS 2019), held between May 5 - 9, 2019 - Venice, Italy, continued a series of events targeting the application of advanced patterns, at-large. In addition to support for patterns and pattern processing, special categories of patterns covering ubiquity, software, security, communications, discovery and decision were considered. It is believed that patterns play an important role on cognition, automation, and service computation and orchestration areas. Antipatterns come as a normal output as needed lessons learned.

The conference had the following tracks:

- Patterns basics
- Patterns at work
- Discovery and decision patterns

Similar to the previous edition, this event attracted excellent contributions and active participation from all over the world. We were very pleased to receive top quality contributions.

We take here the opportunity to warmly thank all the members of the PATTERNS 2019 technical program committee, as well as the numerous reviewers. The creation of such a high quality conference program would not have been possible without their involvement. We also kindly thank all the authors that dedicated much of their time and effort to contribute to PATTERNS 2019. We truly believe that, thanks to all these efforts, the final conference program consisted of top quality contributions.

Also, this event could not have been a reality without the support of many individuals, organizations and sponsors. We also gratefully thank the members of the PATTERNS 2019 organizing committee for their help in handling the logistics and for their work that made this professional meeting a success.

We hope PATTERNS 2019 was a successful international forum for the exchange of ideas and results between academia and industry and to promote further progress in the area of pervasive patterns and applications. We also hope that Venice provided a pleasant environment during the conference and everyone saved some time for exploring this beautiful city.

#### **PATTERNS 2019 Chairs**

### **PATTERNS 2019 Steering Committee**

Herwig Manaert, University of Antwerp, Belgium Claudia Raibulet, University of Milano-Bicocca, Italy Sneha Chaudhari, Carnegie Mellon University, Pittsburgh, USA Valerie Gouet-Brunet, IGN, LaSTIG, MATIS, France Wladyslaw Homenda, Warsaw University of Technology, Poland Patrick Siarry, Université Paris-Est Créteil, France Yuji Iwahori, Chubu University, Japan Alexander Mirnig, University of Salzburg, Austria Markus Goldstein, Ulm University of Applied Sciences, Germany Stan Z. Li, Institute of Automation - Chinese Academy of Sciences, China Reinhard Klette, Auckland University of Technology, New Zealand Jacqueline Daykin, King's College London, UK / Aberystwyth University, Wales & Mauritius

### PATTERNS 2019 Industry/Research Advisory Committee

Charles Perez, Paris School of Business, France Christian Kohls, TH Köln, Germany Krzysztof Okarma, West Pomeranian University of Technology, Szczecin, Poland George A. Papakostas, Eastern Macedonia and Thrace Institute of Technology, Greece Adel Al-Jumaily, University of Technology, Australia