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# Service-Oriented Computing – ICSOC 2019 Workshops

WESOACS, ASOCA, ISYCC, TBCE, and STRAPS  
Toulouse, France, October 28–31, 2019  
Revised Selected Papers

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# Preface

This volume presents the proceedings of the scientific satellite events that were held in conjunction with the 17th International Conference on Service-Oriented Computing (ICSOC 2019), held in Toulouse, France, during October 28–31, 2019.

The satellite events provide venues for specialist groups to meet, generate focused discussions on specific sub-areas within service-oriented computing, and engage in community-building activities. These events significantly helped enrich the main conference by both expanding the scope of research topics and attracting participants from a wider community. As is customary, these satellite events were organized around three main tracks, including a workshop track, a PhD symposium track, and a demonstration track. The ICSOC 2019 workshop track consisted of five workshops covering a wide range of topics that fall into the general area of service computing:

- The 15th International Workshop on Engineering Service-Oriented Applications and Cloud Services (WESOACS 2019)
- The 4th International Workshop on Adaptive Service-Oriented and Cloud Applications (ASOCA 2019)
- The 4th International IoT Systems Provisioning & Management for Context-Aware Smart Cities (ISYCC 2019)
- The first edition of Towards Blockchain-Based Collaborative Enterprise (TBCE 2019)
- The first edition of Smart daTa integRation And Processing on Service based environments (STRAPS 2019)

The workshops were held on October 28, 2019. ASOCA 2019 and ISYCC 2019 were held over a common one-day session. Similarly, WESOACS 2019 and STRAPS 2019 were held over a common one-day session. Finally, TBCE 2019 was held over a half-day session.

The PhD symposium is an international forum for PhD students to present, share, and discuss their research in a constructive and critical atmosphere. It also provides students with fruitful feedback and advice on their research approach and thesis. The PhD symposium track was held over a half-day session.

The demonstration track offers an exciting and highly interactive way to show research prototypes/work in service-oriented computing and related areas. The demonstration track was held over a two-hour session with all the demonstrations running in parallel.

We would like to thank the workshop, PhD symposium, and demonstration authors, as well as the Organizing Committees, who together contributed to these important events of the conference. We hope that these proceedings will serve as a valuable reference for researchers and practitioners working in the service-oriented computing domain and its emerging applications.

## **Submission and Review Information**

Each published paper in this proceedings was reviewed by at least two anonymous reviewers.

Concerning the workshops, 14 papers were accepted of the 32 received papers. In addition, 6 selected papers were invited. ISYCC 2019 accepted 3 papers of the 5 received submissions. Moreover, 3 invited papers were presented in this workshop. ASOCA 2019 accepted 2 papers of the 4 received submissions. Moreover, 2 invited papers were presented in this workshop. WESOACS 2019 accepted 4 papers of the 6 received submissions. STRAPS 2019 accepted 3 papers of the 7 received submissions. An additional invited paper was presented in this workshop. Finally, TBCE 2019 accepted 2 papers of the 3 received submissions.

Concerning the PhD symposium, the track co-chairs accepted the 4 received submissions to give the PhD students the chance to present and discuss their work, and benefit from audience feedback.

Finally, concerning the demonstration track, 12 proposals were received in total. The demonstration co-chairs selected 5 demonstrations.

# Organization

## Workshop Chairs

Sami Yanguì	LAAS-CNRS, France
Athman Bouguettaya	The University of Sydney, Australia
Xiao Xue	Tianjin University, China

## Demonstration Chairs

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Qi Yu	Rochester Institute of Technology, USA
Walid Gaaloul	Télécom SudParis, France

## PhD Symposium Chairs

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Fatma Raissi	LAAS-CNRS, France
Josue Castañeda Cisneros	LAAS-CNRS, France

## **Workshop on Engineering Service-Oriented Applications and Cloud Services**

Willem-Jan van den Heuvel	Tilburg School of Economics and Management, The Netherlands
Andreas S. Andreou	Cyprus University of Technology, Cyprus
George Feuerlicht	Prague University of Economics, Czech Republic
Winfried Lamersdorf	University of Hamburg, Germany
Guadalupe Ortiz	University of Cádiz, Spain
Christian Zirpins	Karlsruhe University of Applied Sciences, Germany

## **Workshop on Adaptive Service-Oriented and Cloud Applications**

Ismael Bouassida Rodriguez	University of Sfax, Tunisia
Ghada Gharbi	Sensinov, Toulouse, France

## **Workshop on IoT Systems Provisioning and Management for Context-Aware Smart Cities**

Mohamed Mohamed	Cupertino, USA
Khouloud Bouakadi	University of Sfax, Tunisia

## **Workshop on Towards Blockchain-Based Collaborative Enterprise**

Layth Sliman	EFREI, France
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## **Workshop on Smart daTa integRation And Processing on Service Based Environments**

Chirine Ghedira Guegan	IAE Lyon School of Management, University Lyon 3, LIRIS Lab, France
Nadia Bennani	INSA Lyon, LIRIS Lab, France
Genoveva Vargas-Solar	CNRS, LIG-LAFMIA, France



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