Preface

Service-oriented and cloud computing have made a huge impact, both on the software industry and on the research community. Today, service and cloud technologies are applied to build large-scale software landscapes and to provide single software services to end users. Services are nowadays developed and deployed independently, based on a variety of technologies, and freely composed, which is quite an important fact from a business perspective. Similarly, cloud computing aims at enabling flexibility by offering a centralized sharing of resources. The industry's need for agile and flexible software and IT systems has made cloud computing the dominating paradigm for provisioning computational resources in a scalable, on-demand fashion. Nevertheless, service developers, providers, and integrators still need to create methods, tools, and techniques to support cost-effective and secure development, as well as the use of dependable devices, platforms, services, and service-oriented applications in the cloud.

The European Conference on Service-Oriented and Cloud Computing (ESOCC) is the premier European conference on advances in the state of the art and practice of service-oriented computing and cloud computing. ESOCC's main objectives are to facilitate the exchange between researchers and practitioners in the areas of service-oriented computing and cloud computing, and to explore new trends in those areas and foster future collaborations in Europe and beyond. The tenth edition of ESOCC, ESOCC 2023, was held in Larnaca (Cyprus) during October 24–25, 2023, under the auspices of the University of Cyprus.

ESOCC 2023 was a multi-event conference that covered both an academic and industrial audience with its main research track focusing on the presentation of cutting-edge research in both the service-oriented and cloud computing areas. In conjunction, a Projects and Industry Track was held, bringing together academia and industry by showcasing the application of service-oriented and cloud computing research, especially in the form of case studies. Overall, 40 submissions were received, out of which 12 outstanding full and four short papers were accepted. Thus, the overall acceptance rate for full papers was 30%.

Each submission was peer-reviewed by three main reviewers, comprising either Program Committee (PC) members or their colleagues. The PC Chairs would like to thank all the reviewers that participated in the reviewing process. Their comments were essential for improving the quality of the received manuscripts and especially for giving constructive comments to the authors of papers that, in their current forms, were rejected from ESOCC 2023.

The attendees of ESOCC had the opportunity to follow two outstanding keynotes that were part of the conference program. The first keynote was conducted by George Pallis of the University of Cyprus. The keynote presented three novel adaptive monitoring frameworks and a fog computing emulation framework. The frameworks allow for reducing energy consumption and data volume transmitted over edge computing networks, and the experiment-based optimization of complex fog topologies.

The second keynote was conducted by Herodotos Herodotou of Cyprus University of Technology. This keynote first reviewed, among other things, the current state of the art in big data stream processing and edge-based stream processing, cloud resource management and tuning, and machine and deep learning on data streams. Next, it presented a general architecture design for an optimized, multi-cloud and edge orchestrator that enables machine and deep learning over voluminous and heterogeneous data streams on hybrid cloud and edge settings. This orchestrator also includes necessary functionalities for practical and scalable processing.

Additional events held at ESOCC 2023 included the PhD Symposium, enabling PhD students to present their work in front of real experts, as well as the Projects and Industry Track, providing researchers and practitioners with the opportunity to present the main research results that they achieved in the context of currently operating research and industrial projects. The papers of both events are also included in this proceedings volume.

The PC Chairs and the General Chair would like to gratefully thank all the people involved in making ESOCC 2023 a success. This includes both the PC members and their colleagues who assisted in the reviews, as well as the organizers of the PhD Symposium and the Projects and Industry Track. The Chairs also thank EasyConferences Ltd. for their administrative support and local organization. Finally, a special thanks to all the authors of the manuscripts submitted to ESOCC 2023, the presenters of the accepted papers who gave interesting and fascinating presentations of their work, and the active attendees of the conference who initiated interesting discussions and gave fruitful feedback to the presenters. All these people have enabled not only the successful organization and execution of ESOCC 2023 but also an active and vibrant community, which continuously contributes to research in service-oriented and cloud computing. This also encourages ESOCC to keep supporting and enlarging its community, by providing a forum in which new research outcomes can be shared and discussions on how to achieve greater impact can be held.

September 2023   George A. Papadopoulos
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