



University Mohamed Khider Biskra  
Faculty of Exact Sciences, Natural and Life Sciences  
Computer Science Department  
In collaboration with LESIA Laboratory  
Organize



## **The 1st Workshop on Systems-of-Systems, Cybersecurity, Communication, Software Architecture, and Product Lines (SCAP) 15-17 December 2019 Biskra, Algeria**

(Location: Visio Conference Room Pr. Bahlali Seid)

The workshop is a venue for researchers, practitioners and students interested in keeping in touch with the latest innovative and significant findings and experiences in the fields of Systems of Systems, Cybersecurity, Communication and Security in Computer Networks and Distributed Systems, Software Architecture, and Software Product Line Engineering.

### **Topics**

Topics of interest of the Workshop include (but are not limited to) the following themes:

#### ➤ **Systems of Systems and Cybersecurity**

- Software Architectures for Systems of Systems;
- Evolution in Systems of Systems;
- System of Systems integration;
- Vulnerabilities Identification in Code Sources;
- Risk Analysis, Safety, Security, Resilience;
- Cyber-Physical Systems;

#### ➤ **Communication and Security in Computer Networks and Distributed Systems**

- Security for : Cloud computing, Group communication, Peer-to-Peer, IoT.
- Internet of Things (IoT) : Architectures, Energy Saving, Routing, Security, QoS.
- Routing, Multicasting, Gossiping, considering Real-Time Systems and QoS, Energy Saving, Security And Reliability.
- Fault Tolerance and Synchronization in Distributed Systems.
- Mobile Systems : Mobile IP, Mobile Ad'Hoc, Delay Tolerant Networks (DTN) and dynamic networks.

#### ➤ **Software Architecture**

- Foundational Principles of Software Architecture.
- Quality Attributes and Software Architectures.
- Architecture Refactoring and Reengineering, Reverse Engineering.
- Software Architecture Reconstruction.
- Service-Oriented Architectures (SOA) and Web Services.
- Architectures for Ultra-Large Scale, Long-Lived Systems and Systems-of-Systems.
- Component-Based Models and Deployment.

## ➤ Software Product Line

- Software Product Line Engineering.
- Software Product Lines Inference.
- Behavioral Models Inference.
- Variability for Robotics Applications.
- Variability Management and Variability Modeling (e.g., feature models, decision models).
- Architecture, Design, and Visualization of Product Lines.
- Reverse Engineering, Variability Mining, and Refactoring of Variability.

## Keynote Speakers:

- **Salah Sadou**, Professor at l'IRISA, University of Bretagne Sud- France. Contact : salah.sadou@irisa.fr,
- **Chouki Tibermacine**, Associate Professor, HDR at LIRMM , Polytech and University of Montpellier France. Contact : chouki.tibermacine@lirmm.fr
- **Tewfik Ziadi**, Associate Professor, HDR at LIP6, Sorbonne University, France. Contact : tewfik.ziadi@lip6.fr,

## Workshop Organizers:

- Mohamed Chaouki Babahenini.
- Abdelmalik Bachir.
- Foudil Cherif.
- Salim Bitam.
- Mohamed Lamine Kerdoudi.
- Okba Tibermacine.
- Tarek Zernadji.
- Abdelhamid Djefal.

## In collaboration with:

- IRISA and Université Bretagne Sud- France.
- LIRMM , Polytech Montpellier, and University of Montpellier - France.
- LIP6, Sorbonne Université, France.

