

# Forum on specification & Design Languages

# 15 –17 September 2020 | Kiel, Germany

FDL is a well-established international forum to exchange experiences and promote new trends in the application of languages, their associated design methods, and tools for the design of electronic systems. Electronic systems of interest to FDL include (but are not limited to) those that are used in Internet of Things (IoT), Cyber-Physical Systems (CPS), mixed criticality embedded systems, embedded systems for high-performance computing, automated driving and driver assistance, real-time systems, reconfigurable and secure computing.

FDL stimulates scientific and controversial discussions within and in-between scientific topics as described below. The program structure includes original research sessions, tutorials, panels, and technical discussions. "Wild and Crazy Ideas" and work in progress are welcome.

We welcome authors to submit manuscripts on topics including, but not limited to:

- Languages and formalisms for designing, testing, verifying, and simulating electronic systems.
- Platform modeling and abstraction, and system-level design languages.
- Synchronous and functional languages for reactive and concurrent systems.
- High-level hardware and software synthesis, virtual prototyping, and design space exploration.
- ◆ Requirements and property specifications, models of ◆ Languages and compilers for modern computations, automata, networks, model- and component-based design.
- Languages and compilers for multi/many-core and heterogeneous architectures.
- Formal methods and languages for model development and verification.
- Modeling and programming language for smart contracts and blockchain.
- Languages and models for specific design domains, like, healthcare, automotive, Industry 4.0, etc.
- computing architectures (energy-efficient and high-performance computing, accelerators including GPUs and FPGAs. deep-learning processors, and IoTs).
- Languages in model-based design and system-design for intelligent systems and machine learning.
- Ontology-based languages and approaches for representation of knowledge about system designs.

Keynotes: Edward Lee | UC Berkeley, Manuel Serrano | Inria & Université Côte d'Azur, Hauke Fuhrmann | Scheidt & Bachmann



#### Submissions:

We solicit submissions of full research papers, for oral presentation, which cover complete research novel and supported by experimental results. We also solicit submissions of short papers, for presentations/posters. Furthermore, we solicit submissions for a PhD/Work in Progress Forum.

Authors should submit papers in double column, IEEE format as PDF through the online submission system. Full research paper are limited to 8 pages, short papers to 4 pages, and WiP/PhD Forum/Poster to 2

### **Call for Special Sessions:**

Special Sessions should focus on a topic which is of particular interest to the FDL audience. Special Sessions consist of two to four invited talks. Speakers are requested to either submit a one page abstract of their presentation, or to submit a short or full paper that goes through the regular review and publication process.

Potential organizers of a Special Session must submit a brief proposal (no more than two pages) which describes the topic, the intended audience, as well as a list of possible speakers fdl2020@easychair.org.

General Chair: Reinhard von Hanxleden | Kiel Univ. Program Chair: Alain Girault | Univ. Grenoble Alpes & INRIA Program Co-Chair | Julien DeAntoni, Université Côte d'Azur & INRIA Local Chair: Steven Smyth | Kiel Univ. Special Session Chair: Sara Vinco | Politecnico di Torino

Tutorial Chair: Johannes Kölsch | TU Kaiserslautern PhD/WiP Forum Chair: Martin Radetzki, Univ. of Stuttgart Finance Chair: Franco Fummi | Univ. of Verona Publication Chair: Daniel Große | University of Bremen Publicity Chair: Julio Medina | Univ. of Cantabria

Web Chair: Florenc Demrozi | Univ. of Verona Panel Chair: Benoît Caillaud | Univ. Rennes & INRIA Industry chair: Ingemar Söderquist | Saab

#### **Publications:**

All accepted papers (long, short, WiP, poster) will appear in the informal electronic proceedings, handed out at the conference.

Long and short papers will be published in electronic form on IEEE Xplore with an ISSN and an ISBN number.

Extended versions of selected papers will be published as a journal special issue (TBC).

All accepted papers must be presented by one of the authors. A full registration for each paper is required prior to the final paper version deadline.

## Important Deadlines (Anywhere on Earth):

Special Sessions: April 6, 2020

Abstract Deadline: May 22, 2020 June 1, 2020 Paper Deadline: May 29, 2020 June 5, 2020

PhD/WiP Deadline: June 12, 2020

Author Notification: June 28, 2020 July 5,2020

Final Version: July 19, 2020

