Forum on specification & Design Languages

• Location
The symposium will be located in Cours Masséna, 06600 Antibes, France. Presentations will take place in the Salle Des Associations:

• Welcome Reception
We kindly invite all participants to the Welcome Reception and Poster Presentation on Wednesday, September 8th, at 6:00 pm.

• Social Event
Departure by boat from Port Vauban in Antibes, we’ll navigate to the Lerins Islands (off Cannes) to visit the aquatic museum or to navigate around the Saint Honorat Island. All this before a good dinner next to the port.

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<td>WEDNESDAY</td>
<td>THURSDAY</td>
<td>FRIDAY</td>
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<tr>
<td>8:00</td>
<td>Registration</td>
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<td>8:30</td>
<td>Opening Remarks</td>
<td>Keynote 2</td>
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<td>9:00</td>
<td>System-Level Solutions</td>
<td>Languages</td>
<td>Guy De Spiegeleer</td>
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<td>Panel</td>
<td>Session 5</td>
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<td>11:00</td>
<td>Lunch</td>
<td>Moving to Social Event</td>
<td>Language for Industry 5.0</td>
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<td>12:00</td>
<td>Social Event</td>
<td>Lunch</td>
<td>Session 6</td>
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<td>13:00</td>
<td>Tutorial 1 UML-RT</td>
<td>Keynote 1</td>
<td>Closing Remarks &amp; Best Paper Award</td>
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<td>14:00</td>
<td>Design Methodologies and Applications</td>
<td>Yamine Aït Ameur</td>
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<td>Coffee Break</td>
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<td>Teasers for PhD / Work in Progress Posters</td>
<td>Welcome Reception / Poster Presentation</td>
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Wednesday 8
- 08:00 AM - 08:30 AM Registration
- 08:30 AM - 09:00 AM Opening remarks
- 09:00 AM - 10:30 AM Session 1
  - System-Level Solutions
    - 1.1 VIP-VP: Early Validation of SoCs Information Flow Policies using SystemC-based Virtual Prototypes **
      - Mehran Goli and Rolf Drechsler
    - 1.2 Improving Parallelism in System Level Models by Optimizing PDES Performance
      - Emad Malekzadeh Arasteh and Rainer Doemer
    - 1.3 RISC-V AMS VP: An Open Source Evaluation Platform for Cyber-Physical Systems
      - Salar Ahmadi-Pour, Vladimir Herdt and Rolf Drechsler
- 10:30 AM - 11:00 AM Coffee break
- 11:00 AM - 12:30 PM Session 2
  - Functional and Non-Functional Verification
    - 2.1 In-Vivo Stack Overflow Detection and Stack Size Estimation for Low-End Multithreaded Operating Systems using Virtual Prototypes
      - Sören Tempel, Vladimir Herdt and Rolf Drechsler
    - 2.2 Clock-Synchronised Shared Memory and Model Checking: A proof of Concept
      - Joaquin Aguado and Alejandra Duenas
    - 2.3 Introducing CPU load Analysis from AADL Models for ROS applications: a use case
      - Senn Eric
- 12:30 PM - 13:30 PM Lunch
- 13:30 PM - 15:00 PM Session 3
  - Design Methodologies and Applications
    - 3.1 A Container-based Design Methodology for Robotic Applications on Kubernetes Edge-Cloud architectures **
      - Francesco Lumped, Marco Panato, Franco Fummi and Nicola Bombieri
    - 3.2 A component-based approach for simulation of autonomous underwater vehicle navigation function handling variability of parameters
      - Loic Salmon, Pierre-Yves Pillain, Gouwen Guillou and Jean-Philippe Babau
    - 3.3 DOHOME: Embedded Computer Vision in Co-Housing Scenarios
      - Geri Skenderi, Alessia Bozzi, Luigi Capogrosso, Enrico Carlo Agrillo, Giovanni Perbellini, Franco Fummi and Marco Cristani
- 14:30 PM – 15:00 PM Coffee break
- 15:00 PM – 16:00 PM Tutorial 1
  - UML-RT (Speaker: Juergen Dingel, Queen’s University, Ontario, Canada)
- 16:00 PM – 17:00 PM Keynote 1
  - Refinement and proof based formal modelling of Hybrid systems with Event-B (Speaker: Yamine Alt Ameur, IRIT/INPT-ENSEEIHT, University of Toulouse, France)
- 17:00 PM - 17:30 PM Teasers for PhD / Work in Progress Posters
- 17:30 PM – 19:00 PM Poster Presentation / Welcome Reception
Thursday 9
- 08:30 AM-09:30 AM Keynote 2
  - Getting the system on the tracks (Speaker: Alexandre Betis, The Signalling Company, Belgium)
- 09:30 AM-11:00 AM Session 4
  - Languages
    - 4.1 Debugging and Verification Tools for Lingua Franca in Gemoc Studio **
      - Julien Deantoni, João Cambeiro, Soroush Bateni, Shaokai Lin and Marten Lohstroh
    - 4.2 Extracting Mode Diagrams from Blech Code
      - Daniel Lucas, Alexander Schulz-Rosengarten, Reinhard von Hanxleden, Friedrich Gretz and Franz-Josef Grosch
    - 4.3 A Common Manipulation Framework for Transistor-Level Languages
      - Nicola Dall’Ora, Sadia Azam, Enrico Fraccaroli, André Alberts and Franco Fummi
- 11:00 AM – 11:30 AM Coffee break
- 11:30 PM – 12:30 PM Panel
  - Is functionally correct correct enough for IIoT - or, is it the Right Time for Real-time? (Moderator: Frank Oppenheimer, OFFIS e.V., Germany)
- 12:30 PM – 13:00 PM Moving to Social Event
- 13:00 PM – 18:30 PM Social Event
- 18:30 PM – 20:30 PM Dinner
Friday 10
- 08:30 AM - 09:30 AM Keynote 3
  - Complex system design and digital twin: feedback, thoughts and perspectives
    (Speaker: Guy De Spiegeler, Safran S.A., France)
- 09:30 AM - 10:30 AM Tutorial 2
  - Programming Deterministic Reactive Systems Using Lingua Franca (Speaker: Marten Lohstroh, University of California, Berkeley, USA)
- 10:30 AM - 11:00 AM Coffee break
- 11:00 AM - 12:30 AM Session 5
  - Languages for Industry 5.0
    - 5.1 Modeling in Industry 5.0: What Is There and What Is Missing
      - Sebastiano Gaiardelli, Stefano Spellini, Michele Lora and Franco Fummi
    - 5.2 On the Role of Model Driven Engineering for Digital Twins
      - Romina Eramo, Francis Bordeleau, Benoit Comemale, Mark van den Brand, Manuel Wimmer and Andreas Wortmann
    - 5.3 Cognification of MBSE for an Augmented Collaborative Digital Engineering
      - Sébastien Gérard
- 12:30 PM – 13:30 PM Lunch
- 13:30 PM – 15:00 PM Session 6
  - Design and Engineering of Electronic Systems
    - 6.1 DSLs for Model Driven Development of Secure Interoperable Automation Systems
      - Jobish John Amrita Ghosal, Tiziana Margaria and Dirk Pesch
    - 6.2 Modeling and Performance Estimation of Robotic Systems using ROS: Application to drone-based Services
      - Eugenio Villar, Hector Posadas, Javier Merino and Raul Gomez
    - 6.3 The Challenge of Agriculture: Increase the Productivity in a Sustainable Way
      - Victor Grimblatt
- 15:00 PM – 15:30 PM Coffee break
- 15:30 PM – 16:00 PM Closing Remarks & Best Paper Award
  ** Best paper award nomination