# **PNSE'11**

# **International Workshop on Petri Nets and Software Engineering** Kanazawa, Japan now: Newcastle upon Tyne, UK, June 20-21, 2011

a satellite event of Petri Nets 2011 and ACSD 2011

32nd INTERNATIONAL CONFERENCE ON APPLICATION AND THEORY OF PETRI NETS AND CONCURRENCY

and

11th INTERNATIONAL CONFERENCE ON APPLICATION OF CONCURRENCY TO SYSTEM DESIGN

More information: http://www.informatik.uni-hamburg.de/TGI/events/pnse11/ Contact e-mail: pnse11@informatik.uni-hamburg.de

# **Important Dates:**

Deadline for full papers: April 20th, 2011 Deadline for short papers: April 20th, 2011 Notification of paper acceptance: May 6th, 2011 Deadline for posters: May 10th, 2011 Notification of poster acceptance: May 16th, 2011 Deadline for final revisions: May 20th. 2011 Workshop: Monday/Tuesday, June 20/21, 2011

#### Scope

For the successful realisation of complex systems of interacting and reactive software and hardware components the use of a precise language at different stages of the development process is of crucial importance. Petri nets are becoming increasingly popular in this area, as they provide a uniform language supporting the tasks of modelling, validation, and verification. Their popularity is due to the fact that Petri nets capture fundamental aspects of causality, concurrency and choice in a natural and mathematically precise way without compromising readability.

The workshop PNSE'11 (Petri nets and Software Engineering) will take place as a satellite event of Petri Nets 2011.

The use of Petri nets (P/T-nets, coloured Petri nets and extensions) in the formal process of software engineering, covering modelling, validation, and verification, will be presented as well as their application and tools supporting the disciplines mentioned above.

### Topics

We welcome contributions describing original research in topics related to Petri nets in combination with software engineering, addressing open problems or presenting new ideas regarding the relation of Petri nets and software engineering. Furthermore we look for surveys addressing open problems and new applications of Petri nets. Topics of interest include but are not limited to:

- Modelling
  - representation of formal models by intuitive modelling concepts
  - guidelines for the construction of system models
  - representative examples
  - o process-, service-, state-, event-, object- and agent-oriented approaches
  - adaption, integration, and enhancement of concepts from other disciplines
  - views and abstractions of systems
  - model-driven architecture
  - modelling software landscapes
  - · web service-based software development
- · Validation and Execution
  - prototyping
  - simulation, observation, animation
  - code generation and execution
  - testing and debugging
  - efficient implementation

Verification

- structural methods (e.g. place invariants, reduction rules)
  - results for structural subclasses of nets
  - relations between structure and behaviour
  - state space based approaches
  - efficient model checking
  - assertional and deductive methods (e.g. temporal logics)
  - process algebraic methods
  - applications of category theory and linear logic
- · Application of Petri nets in Software Engineering, in particular the use of Petri nets in the domains of
  - flexible manufacturing,
  - logistics.
  - telecommunication,
  - workflow management and
  - embedded systems.
- Tools in the fields mentioned above

#### Submissions

The programme committee invites submissions of full contributions (up to 15 pages) or short contributions (up to 5 pages). Ongoing work (up to 2 pages) can also be presented in a special poster session.

Please note that for full contributions up to 15 pages are recommended.

Papers should be submitted in electronic form (PDF) using the Springer LNCS-format (see http://www.springer.de/comp/lncs/authors.html). Submissions should include title, authors' addresses, E-mail addresses, keywords and an abstract. For your submission in PDF format please use the online conference management system at

#### http://www.easychair.org/conferences/?conf=pnse11

Just create a new account and then upload your paper. (Later you will be able to see your reviews there.)

The papers will be peer reviewed by at least four members of the PC. Accepted contributions will be included in the workshop proceedings, which will be available at the workshop and on this website.

Some of the best papers from the workshop will be invited for publication in a volume of the journal sub line of Lecture Notes in Computer Science entitled "Transactions on Petri Nets and Other Models of Concurrency" (ToPNoC). The papers are expected to be thoroughly revised and they will go through a totally new round of reviewing as is standard practice for journal papers.

Papers from previous instances of this workshop (PNSE'07, PNDS'08, PNSE'09 and PNSE'10) made it into ToPNoC volumes in the Springer LNCS series (volumes 5100, 5460 and 5800).

# Chairs

- Michael Duvigneau (University of Hamburg, Germany)
- Kunihiko Hiraishi (Japan Advanced Institute of Science and Technology, Japan)
- Daniel Moldt (University of Hamburg, Germany)