

Call for Papers

# First workshop on software-controlled, adaptive fault-tolerance in microprocessors

SCAFT 2011

Held in conjunction with  
ARCS 2011 - Architecture of Computing Systems  
Lake Como, Italy 22 February 2011

<http://scaft.in.tum.de>

## IMPORTANT DATES

Extended Abstracts due:	17 December	2010
Author notification:	8 January	2011
SCAFT workshop date:	22 February	2011
Full papers due:	15 April	2011

## OVERVIEW

Future microprocessors will have more transistors, smaller feature sizes, a higher complexity, lower voltages, and higher clock frequencies as today. All these factors will increase the probability of design-, manufacturing-, and operational faults. Therefore, in order to obtain a satisfying production yield, and in order to fulfill the dependability requirements of modern applications, fault-tolerance techniques within digital designs will be of crucial importance. However, simple solutions like triple modular redundancy (TMR), as they are used in today's safety-critical application areas, are certainly too expensive for general purpose processors in data centers and embedded computing.

This workshop therefore addresses light-weight fault tolerance techniques, which are implemented in hardware, but might be controlled from higher software layers. In such a way, the application or operating system can decide which degree of fault-tolerance is required. Thus, the software controls both the increase in dependability, but also the performance overhead involved.

In particular, the workshop addresses the following topics:

- techniques against different types of faults, such as
  - design, manufacturing, and operational faults
  - permanent, intermittent, and transient faults
  - faults affecting the control unit, arithmetic unit, and memory unit
- light-weight fault masking
- techniques to detect errors, like error detecting codes and checker circuits
- fault diagnosis and root-cause analysis, online failure prediction
- on-chip backward recovery techniques (e.g. pipeline flush and re-execution)
- forward recovery techniques (notification of higher layers)
- fault-tolerance techniques aware of the environment (temperature, vibration, age ...)
- software-controlled fault-tolerance
- error detection on the electrical layer
- fault-tolerant caches
- re-using unused parallel resources for fault-tolerance
- fault-tolerance in multi- and manycore processors
- fault-tolerance in systems on a chip
- evaluation of fault-tolerant architectures, both by measurement and model-based approaches
- fault-injection techniques
- finding a tradeoff between dependability, performance, and power consumption

## **SUBMISSION DETAILS**

Evaluation is based on a four page extended abstract which has to be submitted until 17 December 2010 (strict deadline). Accepted abstracts will appear in the workshop proceedings published by the VDE-Verlag.

The deadline for the full papers is 15 April 2011. There will be a second round of reviewing for the full papers. Full papers will appear in a special issue of "Microprocessors and Microsystems", published by Elsevier: <http://www.elsevier.com/locate/micpro>

Further details on the submission process, including formatting instructions, can be found on the workshop's webpage at <http://scaft.in.tum.de>

## ORGANIZERS

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Lehrstuhl für Rechner-technik und Rechnerorganisation (Informatik 10)  
Technische Universität München, Germany

## TECHNICAL PROGRAM COMMITTEE

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Tomohiro Yoneda	National Institute of Informatics, Japan

## CONTACT

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# GMM

# ITG

## 23. Workshop

### Testmethoden und Zuverlässigkeit von Schaltungen und Systemen

27. Februar bis 1. März 2011, Hotel Weißer Hase, Passau

#### Call for Papers

#### Programmkomitee

J. Alt  
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V. Schöber  
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M. Tahoori  
*Karlsruhe Institute of Technology*

W. Vermeiren  
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H. T. Vierhaus  
*BTU Cottbus*

R. Wagner  
*Robert Bosch GmbH*

H.-J. Wunderlich  
*Universität Stuttgart*

Der Workshop „Testmethoden und Zuverlässigkeit von Schaltungen und Systemen“ ist das bedeutendste deutschsprachige Forum, um Trends, Ergebnisse und aktuelle Probleme auf dem Gebiet des Tests, der Diagnose und der Zuverlässigkeit digitaler, analoger, Mixed-Signal- und HF-Schaltungen zu diskutieren. Der Austausch von Ideen ist ein wichtiges Anliegen des Workshops. Erwünscht sind Beiträge aus der industriellen Praxis und von Forschungseinrichtungen. Sowohl sehr stark praxisbezogene Erfahrungsberichte und Ergebnisse als auch theoretische Beiträge sind willkommen.

#### Beiträge zu folgenden und weiteren Themen werden erbeten

- Defekt- und Fehlermodellierung
- Testerzeugung und Fehlersimulation
- Testgerechter Entwurf
- Selbsttest für Module und Systeme
- Test von HF-Schaltungen
- Signalintegrität
- Systemtest und -zuverlässigkeit
- Diagnose von Ausfallursachen
- Selbstreparatur und Selbstheilung
- Fehlertoleranz und Online-Test
- Robuste und strahlenresistente Systeme
- Test mechatronischer Systeme
- Automatisches Test-Equipment und Testmodellierung
- Testkosten

Der Workshop findet im Hotel Weißer Hase in Passau statt und wird vom Lehrstuhl für Technische Informatik an der Fakultät für Informatik und Mathematik der Universität Passau durchgeführt. Interessenten werden gebeten, ihren Beitrag im Umfang von maximal 6 Seiten über die Workshop-Homepage einzureichen. Der Beitrag sollte den Zweck der Arbeit, den Neuigkeitsgehalt und Aspekte der Anwendung beschreiben. Angenommene Beiträge werden auf Wunsch in die Workshop Handouts aufgenommen.

Um einen freien Austausch von Ideen und Informationen zu erleichtern, sind während des Workshops Video- und Audioaufzeichnungen nicht gestattet. Die Sprache des Workshops ist deutsch, Beiträge oder Vorträge in englischer Sprache sind jedoch willkommen.

#### Workshop-Homepage

<http://tuz11.fim.uni-passau.de>

#### Einreichung der Beiträge

bis spätestens **31. Oktober 2010** über die Workshop-Homepage

#### Veranstalter

GI FA 3.5 / ITG FA 8.2 / GMM FA 6.5

RSS Kooperationsgemeinschaft Rechnergestützter Schaltungs- und Systementwurf, Universität Passau

#### Wissenschaftliche Leitung

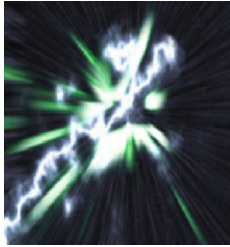
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## Call for Participation Workshop on Silicon Errors in Logic – System Effects (SELSE 2011)

University of Illinois— March 29-30, 2011

The growing complexity and shrinking geometries of modern device technologies are making high-density, low-voltage devices increasingly susceptible to influences from electrical noise, process variation, and natural radiation interference. System-level effects of these errors can be far reaching. Growing concern about intermittent errors, unstable storage cells, and the effects of aging are influencing system design. This workshop provides a forum for discussing current research and practice in system-level error management. Participants from industry and academia explore both current technologies and future research direction (including nanotechnology). We are interested in soliciting papers that cover system-level effects of errors from a variety of perspectives: architectural, logical and circuit-level, and semiconductor processes. Case studies are also solicited.

Key areas of interest are (but not limited to):

- Technology trends and the impact on error rates.
- New error mitigation techniques.
- Characterizing the overhead and design complexity of error mitigation techniques.
- Case studies describing the engineering tradeoffs necessary to decide what mitigation technique to apply.
- Experimental data.
- System-level models: derating factors and validation of error models.
- Error handling protocols (higher-level protocols for robust system design).

Authors may submit extended abstracts for paper presentation, poster presentation, or either format. The extended abstracts for accepted posters are included in the workshop proceedings. Authors are requested to submit their extended abstracts for review **before December 23, 2010**. Additional information and guidelines for submission are available at [www.selse.org](http://www.selse.org). Submissions should be PDF or Microsoft Word files that do not exceed four printed pages. Customary terms for copyright agreement and non-confidentiality will apply. Authors will be notified of paper outcome by February 17, 2011. Camera-ready formatted papers, up to six pages in length, are due on March 17, 2011.

**Organizing committee** (see [www.selse.org/committee](http://www.selse.org/committee) for complete membership):

Workshop Co-chairs:	Alan Wood, Oracle Rakesh Kumar, UIUC
Program Co-chairs:	Babak Falsafi, EPFL TBD
Finance Co-chairs	Vikas Chandra, ARM Vilas Sridharan, AMD
Local Arrangements Chair:	Rakesh Kumar, UIUC
Publicity Chair:	Vivian Zhu, TI

# EuroSys 2011

April 10-13,  
Salzburg, Austria

<http://eurosys2011.cs.uni-salzburg.at>

EuroSys'11, the European Conference on Computer Systems, seeks papers on all aspects of computer systems, especially ones that bridge traditionally disjoint areas.

All areas of operating systems and distributed systems are of interest, including:

- ▶ Systems aspects of:
  - Continuous media
  - Cloud, grid, and internet/web computing
  - Databases, and information and data management
  - Dependable computing and storage
  - Distributed computing
  - Local and distributed storage
  - Management, autonomic, and control
  - Measurement, monitoring, analysis, and diagnostics
  - Mobile, personal, and pervasive computing
  - Novel uses of information technology
  - Novel user interfaces
  - Parallel and concurrent computing
  - Programming-language support
  - Real-time and embedded computing
  - Security
  - Sensor nets and tiny devices
  - Service-oriented architectures
- ▶ Experience with existing systems
- ▶ Reproduction or refutation of previous results
- ▶ Negative results
- ▶ Early ideas

In addition to papers that report on the design, implementation, evaluation and deployment of systems or research work, we also actively encourage papers about new ideas, or experiences with ideas or systems. Appropriate standards will be applied to papers in different categories: for experiences papers, evaluation and lessons-learned will be more important than novelty.

Papers are reviewed by the program committee, with the help of outside referees. Papers will be accepted primarily for their impact on the systems community. Novelty, clarity of explanation, thoroughness of evaluation, and bridging gaps between different communities are additional criteria. Acceptance may be provisional, subject to further shepherding by a member of the program committee before final acceptance.

Reviewing will be double-blind, meaning the authors' identities will be hidden from the reviewers (note that this is a change in policy to previous EuroSys conferences). EuroSys applies ACM's policies for plagiarism, submission confidentiality, reviewer anonymity, and prior and concurrent paper submission; see <http://www.acm.org/publications/policies/policies-toc> for more details. Submissions accompanied by nondisclosure agreement forms will not be considered. Note that the above does not preclude the submission of a paper that is derived from a previous short paper or workshop paper, as long as it provides a significant new contribution (e.g., a more complete evaluation of an idea) and clearly indicates the nature and extent of the new material in the submission.

Submissions may not exceed 12 pages double column, including everything (i.e., figures, tables, references, appendices, etc.), and should use a 10pt font. A LaTeX style file is available from the submission site. No changes to margins, spacing, or font sizes are allowed from those specified by the style file. Papers that violate the submission guidelines will be automatically rejected without consideration of their merit. Accepted papers will be allowed 14 pages in the proceedings. At least one author of an accepted paper will be expected to travel to the conference to present it.

Authors who are unsure whether their submissions might meet these guidelines, or with specific questions about the guidelines, are welcome to contact the program committee chair, via [eurosys11-pcc@ertos.nicta.com.au](mailto:eurosys11-pcc@ertos.nicta.com.au). EuroSys'11 welcomes submissions and attendance from all over the world. To encourage diversity, any single author may be named on at most three papers.

In order to encourage and aid authors less experienced in writing competitive systems papers, we offer a pre-submission option. All complete papers received by the pre-submission deadline (4 weeks before the actual paper deadline) will, within one week, receive feedback from an experienced systems researcher and reviewer on how to improve the paper. This feedback will focus on structure and presentation issues and emphasize improving the writeup rather than critiquing the research. Pre-reviewers may or may not be members of the program committee, and may or may not review the final paper (but are subject to the same confidentiality rules as actual reviewers). As such, the same standards of double-blind reviewing apply as for the final papers.

In addition to paper presentations, EuroSys'11 will have a poster session. Submissions for posters will open closer to the conference deadline. Accepted papers will automatically qualify for the poster session, and authors will be strongly encouraged to participate. We will offer awards for the best paper and for the best paper with a student as the primary author.

## Important dates

Paper pre-submission	10 September 2010
Abstract submission	3 October 2010
Full paper submission	10 October 2010 (no extensions)
Reviews released to authors	25 December 2010
Author rebuttals due	31 December 2010
Notification to authors	8 January 2011
Camera-ready	TBA

## Program committee:

- ▶ Adam Dunkels, SICS
- ▶ Alistair Veitch, HP Labs
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- ▶ Zheng Zhang, MSR Asia





# Call for Contributions

## Fifth Latin-American Symposium on Dependable Computing

São José dos Campos, São Paulo, BRAZIL

April 25 – 29, 2011

<http://www.inpe.br/ladc2011>

Organized by: **INPE - Instituto Nacional de Pesquisas Espaciais**

Co-sponsored by: **SBC - Brazilian Computing Society • IEEE Computer Society Technical Committee on Dependable Computing and Fault Tolerance.**

**IN COOPERATION WITH :** IFIP Working Group 10.4 Dependable Computing and Fault-Tolerance • SMCC - Mexican Society for Computer Science

• SCCC - Chilean Computer Science Society • SADIO - Argentine Society for Informatics and Operations Research • AUDIIO - Informatics and Operational Research Uruguayan Association.

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LADC is the major Latin-American event dedicated to discussing the many issues related to computer system dependability. This fifth edition will be held in São José dos Campos, São Paulo, Brazil. The LADC program will present technical sessions, workshops, student forum, tutorials, industrial tracks, and keynote talks from top international experts in the area. The symposium scope spans system, software, and hardware dependability research and technological challenges. Major topics include, but are not limited to:

Engineering dependable systems: hardware, networking, software, deployment, and maintenance;

Dependability of hardware: fault tolerant architectures, multi-core systems, virtualization, nanoscale computers, hardware dependability assessment;

Dependability of software: frameworks and software architectures for dependability, runtime monitoring, adaptation, model driven dependability

engineering, testing, verification, software certification;

Dependability of networks: LAN, WAN, mobile, ad-hoc, sensor networks, protocols;

Dependability of data: storage, databases;

Dependability of maintenance: tuning performance and availability, security configuration;

Dependability and human issues: human-computer interaction, management of complex systems;

Security: foundations, policies, protocols, access control, intrusion detection, intrusion tolerance;

Safety: incidents & accidents, risk perception and analysis, safety-critical applications and systems;

Critical infrastructure protection;

Algorithms and methods for dependable and secure computing;

Dependability and security modeling, measurement and benchmarking.

Only original papers (not published or under review elsewhere) should be submitted. All submissions must be made electronically through the conference web site. There will be an award for the **best paper of the conference**. The conference proceedings will be published by the IEEE CS.

### INFORMATION FOR AUTHORS

**Main track papers.** Papers should be written in English and can be submitted in the following categories: **Regular Papers** describing original research, **Practical Experience Reports** describing an experience or a case study. Regular Papers and Practical Experience Reports should be no longer than 10 and 6 pages, respectively. Papers should be set in the IEEE double-column style, including figures, tables, references, and appendices. The font size should be 10 points. The first page should include an abstract, authors' name, addresses and affiliations, and specify whether the submission is to the Regular Paper or to the Practical Experience Report track. The full mailing address, telephone and FAX numbers, as well as e-mail address of the contact author should also be indicated.

**Fast abstracts.** These are short presentations, either on new ideas or work in progress that can address any issue relevant to dependability. Academics and industrial practitioners are invited to submit fast abstracts written in English, with size limited to two pages (IEEE style double-column format).

**Student forum.** The Student Forum at LADC provides an opportunity for students currently working in the area of dependable computing to present and discuss their research objectives, approaches and preliminary results. Student research papers should be single-authored and describe the topic, preliminary results, and future directions of the student's on-going research. Papers submitted to the Forum should be at most three pages in length (IEEE style double-column format).

**Industrial track:** This track intends to bring together people from both academia and industry in a venue that highlights practical and real world studies on dependable computing. These are short presentations that address any issue relevant to dependability as seen from an industrial perspective. The contributions to the industrial track should emphasize lessons learned from the practice of dependability, present a problem definition, its importance, the potential solution and analysis of results. Papers should be written in English and have 4 to 6 pages (IEEE style double-column format).

**Tutorials and Workshops.** Proposals for full day and half-day tutorials or workshops are also requested. **Tutorial** proposals should include the lecture outline, assumed background of audience, and bio of the presenter(s). **Workshops** provide a forum for a group of participants to interact and exchange opinions on topics related to dependable systems. Proposals should include the title, an outline of the theme and goals, as well as a brief bio of the organizer(s).

### IMPORTANT DATES

#### Regular Papers and Practical Experience Reports

Abstract submission: September 24th, 2010

Full paper submission: October 1st, 2010

Author notification: January 14th, 2011

Camera ready: February 11th, 2011

#### Tutorials

Submission deadline: October 14th, 2010

Proponents notification: November 12th, 2010

#### Fast Abstracts and Student Forum

Submission deadline: February 4th, 2011

Author notification: March 1st, 2011

Camera ready: March 18th, 2011

#### Workshops

Submission deadline: September 24th, 2010

Proponents notification: October 24th, 2010

#### Industrial Track

Submission deadline: February 4th, 2011

Author notification: March 1st, 2011

Camera ready: March 18th, 2011

Call for Papers

# Second Workshop and Tool Session on DYnamic Aspects in DEpendability Models for Fault-Tolerant Systems

DYADEM-FTS 2011

Held in conjunction with the  
Fifth Latin-American Symposium on Dependable Computing  
São José dos Campos, São Paulo, Brazil April 25 2011

<http://dyadem.in.tum.de>

## IMPORTANT DATES

Papers submission deadline:	14 January 2011
Author notification:	25 February 2011
Camera ready due:	11 March 2011
DYADEM-FTS workshop date:	25 April 2011

## OVERVIEW

The dependability of fault-tolerant systems is usually quantified by using stochastic models which compute the system's dependability from the properties of its components. Most frequently, combinatorial analytic techniques like fault trees or reliability block diagrams are used for this purpose.

The above-mentioned techniques are very mature and well understood both in industry and the academic environments. However, their classical solution methods only work for Boolean components and Boolean systems with a static behavior, and only under the assumption that there are no dependencies and interactions between the components of the system.

Examples of important properties which cannot be modeled using classical techniques are dependent, cascading and common cause events, imperfect fault coverage, error propagation, load sharing, standby-redundancy, delayed models, multi-phase systems, limited repair facilities and corresponding policies, ageing effects, and so on. Therefore, the classical solution methods based on simplified assumptions can provide inaccurate or even dangerously over-optimistic results.



It is the aim of the workshop to discuss novel ideas, methods, algorithms, and software tools for in-depth studies of these dynamic aspects of dependable fault-tolerant systems. Any contribution related to qualitative and quantitative evaluation is welcome.

In particular, the main topics of the workshop include, but are not limited to:

- Dependability assessment of fault-tolerant systems including dynamic aspects and behaviors
- Non-Boolean components and basic events, including components with different failure modes transient, permanent, ...
- Non-Boolean system structures including dynamic, reconfigurable systems and gracefully degradable systems
- Interrelation between faults and failures including dependent, on-demand, cascading and common cause failures and events
- Dynamic redundancy schemes including load sharing, cold and warm standby, imperfect fault detection and localization, as well as the impact of non-zero reconfiguration times
- Corrective and preventive maintenance policies, including minimal repair, finite/limited repair facilities and corresponding strategies
- Varying failure rates, including ageing effects and reliability growth models
- Human factor and human reliability
- Non-coherent structures and systems, multi-valued systems and phased mission systems
- Extensions to classic modeling approaches combinational, state-based, and simulation including Markovian and non-Markovian techniques, Petri nets, process algebras, Bayesian networks, and simulation
- High-level and application-oriented modeling techniques and tools
- On-line evaluation techniques and tools for adaptive systems
- Collection and analysis of statistical data, computer tools for statistical analysis of data on reliability
- Approximation techniques and tools (fuzzy logic, neural networks...), heuristics
- Meta-heuristic approaches (genetic algorithms, simulated annealing, ant colonies ...)
- Importance and sensitivity analysis

## **SUBMISSION DETAILS**

Submission details will be provided in time in a second call for paper and on the workshop's webpage at <http://dyadem.in.tum.de>. For now, each paper must be submitted as a single Portable Document Format PDF file adhering to the ACM two-column camera-ready format, and respect the length requirements of 8 pages. Please refer to the website for detailed formatting information.

## KEYNOTE SPEECH

A recognized expert on the topic of dynamic aspects in dependability models will be invited for making a keynote talk during the workshop.

## TOOL SESSION

A hands-on session for software tools which are related to the workshop's scope will be arranged by the organization committee. Both commercial tools as well as prototype tools developed in the academic environment will be presented. The idea is to bring together commercial tool developers and scientists in order to identify actual challenges and to facilitate the transfer of ideas found in academic tools into the commercial software packages.

Academic tools may be presented by workshop/conference participants without additional charges if they were positively evaluated by the workshop's program committee. Evaluation is based on one of the following submission types among which the authors may choose from:

- A regular paper accepted at the LADC main conference.
- A regular paper accepted at the workshop.
- A scientific paper previously published at a scientific conference or journal. We explicitly encourage authors of already published tool papers and developers of already established tools to participate at the workshop because it is important to compare novel approaches with already existing ones. Of course, already published papers will not be included in the proceedings.
- A 4 page summary of the tool. This type of submission is intended for authors of work-in-progress methods and tools. The 4 page summary will be published in the proceedings.

## ORGANIZERS

A. Bode	Technische Universität München, Germany
M. Bouissou	Electricité de France, France
S. Distefano	Università di Messina, Italy
A. Puliafito	Università di Messina, Italy
K. Trivedi	Duke University Durham, USA
M. Walter	Technische Universität München, Germany

## PROGRAM COMMITTEE

S. Amari	Relax Software Corporation, USA
J.-F. Aubry	Institut National Polytechnique de Lorraine, France
F. Belli	Universität Paderborn, Germany

A. Bode	Technische Universität München, Germany
H. Boudali	European Space Research and Technology Centre, The Netherlands
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D. Bruneo	Università di Messina, Italy
P. Buchholz	Universität Dortmund, Germany
G. Deleuze	Electricité de France, France
T. Dohi	Hiroshima University, Japan
F. Dotti	Pontifícia Universidade Católica do Rio Grande do Sul, Brazil
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C. Trinitis	Technische Universität München, Germany
	University of Bedfordshire, UK
K. Trivedi	Duke University Durham, USA
M. Walter	Technische Universität München, Germany
L. Xing	University of Massachusetts, Dartmouth, USA
A. Zimmermann	Technische Universität Ilmenau, Germany

## CONTACT

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M. Walter: [Max.Walter@in.tum.de](mailto:Max.Walter@in.tum.de)

<http://dyadem.in.tum.de>

# EWDC 2011

## 13th European Workshop on Dependable Computing

Pisa, Italy, 11-12 May 2011



### Workshop Chair

Felicita Di Giandomenico (Italy)

### Finance & Admin

Ettore Ricciardi (Italy)

### Website

Marco Martinucci (Italy)

### Publication

Silvano Chiaradonna (Italy)

### Program Committee

Tomas Bures (Czech Republic)  
Vincenzo De Florio (Belgium)  
Antiniscia Di Marco (Italy)  
Giovanna Di Marzo S. (Switzerland)  
Jean-Charles Fabre (France)  
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Paolo Masci (Italy)  
Simin Nadjm-Tehrani (Sweden)  
Nuno Neves (Portugal)  
Marta Patiño-Martínez (Spain)  
Leonardo Querzoni (Italy)  
Manfred Reitenspieß (Germany)  
Juan Carlos Ruiz (Spain)  
Felix Salfner (Germany)  
Marco Serafini (Spain)  
François Taïani (UK)  
Dániel Varró (Hungary)  
Marco Vieira (Portugal)  
Roman Vitenberg (Norway)  
Hélène Waeselynck (France)

### Steering Committee

Karama Kanoun (Chair, France)  
Algirdas Avižienis (Lithuania)  
Felicita Di Giandomenico (Italy)  
Ricardo Jiménez-Peris (Spain)  
Johan Karlsson (Sweden)  
Jean-Claude Laprie (France)  
Henrique Madeira (Portugal)  
Mirosław Malek (Germany)  
Jaan Raik (Estonia)  
Brian Randell (UK)  
Luca Simoncini (Italy)  
Janusz Sosnowski (Poland)

### Special theme: Resilience of Evolving Software Systems.

This workshop aims to be a European forum for researchers and practitioners who are working in the field of dependable computing.

After the first series, started in 1989 and held on a yearly basis until 2000, EWDC was recently revived with the 2009 edition in Toulouse. EWDC will be run alternatively with EDCC (European Dependable Computing Conference). As the next EDCC edition is in 2012, the workshop is planned in 2011 and will be hosted in Pisa, Italy.

EWDC 2011 will focus on the resilience of evolving software systems. This is a challenging theme, especially when considering that information systems are more and more composed of complex, heterogeneous, evolving networked systems and infrastructures characterized by dynamic requirements and changes in the environment and in the systems themselves. Issues of interoperability in presence of dependability guarantees, as well as efficient and scalable modeling and experimental techniques to assess the impact of accidental or malicious threats on dependability and security attributes, are among the crucial aspects to be addressed. Accordingly, topics of interest include, but are not limited to:

- Architecture, design and management of resilient evolving systems
- Specification and design methodologies, e.g., model-based, component-based, refinement-based approaches
- Metrics for quantifying the dependability of resilient evolving systems
- Model verification and validation for dependability and security evaluation
- Formal verification, testing, analytical and experimental evaluation
- Off-line versus on-line dependability assessment
- Case studies illustrating challenges and solutions in resilient evolving systems
- Design and use of supporting tools

### Submission information

Authors are invited to submit either short papers (2 pages) or full papers (5-6 pages), 10 pt font, single space, double column format. This should offer the greatest flexibility to present novel work/ideas at varying degrees of maturity. For detailed instructions, please see proceedings template:

<http://www.acm.org/sigs/publications/proceedings-templates>

Address for paper submission:

<http://www.easychair.org/conferences/?conf=ewdc2011>

Papers accepted and presented at the workshop will be published in a workshop volume of the ACM Digital Library with the ISBN 978-1-4503-0284-5.

### Important Dates

Submission: 3 February 2011

Notification: 18 March 2011

Camera ready: 4 April 2011

Workshop date: 11-12 May 2011

# **16th IEEE Workshop on Dependable Parallel, Distributed and Network-Centric Systems**

**Anchorage, Alaska, USA**

**Held in conjunction with the**



**25th IEEE International Parallel and Distributed Processing Symposium**

**May 16-20, 2011**

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## **Theme**

Increasingly large and complex parallel, distributed and network-centric computing systems provide unique challenges to the researchers in dependable computing, especially because of the high failure rates intrinsic to these systems. The goal of this workshop in continuation of the FTPDS (Fault-Tolerant Parallel and Distributed Systems) workshop series is to provide a forum for researchers and practitioners to discuss all aspects of dependability including reliability, availability, safety and security for parallel, distributed and network-centric systems. All aspects of design, theory and realization are of interest.

## **Topics of interest include, but are not limited to:**

- Dependable parallel, distributed and network-centric systems
- High availability in parallel, distributed and network-centric computing systems
- Safety and security in distributed and network-centric computing systems
- Autonomic network computing
- Dependability by virtualization
- Dependable high-speed wide, local, and system area networks
- Dependable mobile computing
- Dependable clusters
- Dependable internet servers
- Dependable grid and cloud computing
- Dependability in distributed embedded systems
- Dependability issues of multi- and manycore systems
- Dependable protocols for distributed and network-centric systems
- Protocol verification and validation
- Practical experiences and prototypes
- Dependability evaluation of parallel, distributed and network-centric systems

- Dependable quantum computing
- Dependable biocomputing

## Program Co-Chairs:

T. Kikuno - OSAKA University, Japan  
T. Tsuchiya - OSAKA University, Japan

## Program Committee:

J. Alonso, Technical University of Catalonia and Barcelona Supercomputing Center, Spain  
B. Ciciani, University of Roma, Italy  
M. Colajanni, University of Modena, Italy  
G. Deconinck, University of Leuven, Belgium  
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S. Ivanov, RT-solutions.de GmbH, Germany  
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R. Khazan, MIT Lincoln Lab, USA  
A. Puliafito, University of Messina, Italy  
F. Quaglia, University of Roma, Italy  
F. Salfner, Humboldt University, Germany  
L. Silva, University of Coimbra, Portugal  
P. Sobe, University of Applied Sciences Dresden, Germany  
W. Steiner, TTTech Computertechnik AG, Viena, Austria  
J. Torres, BSC UPS, Barcelona, Spain  
C. Trinitis, TU Munich, Germany

The workshop is sponsored by the IEEE Computer Society Technical Committee on Parallel Processing and IRIANC (International Research Institute on Autonomic Network Computing), Boston, USA/Munich, Germany.



## Contact the Program Chair via email:

[Tohru Kikuno - OSAKA University, Japan](#)  
[Tatsuhiro Tsuchiya - OSAKA University, Japan](#)

## Steering Committee:

D. Avresky, International Research Institute on Autonomic Network Computing (IRIANC), Boston USA/Munich Germany (Chair)



E. Maehle, University of Luebeck, Germany (Co-Chair)

To submit papers, send the file (at most 8 pages long including figures and references in the IEEE format (see [www.ieee.org](http://www.ieee.org))) describing original unpublished research by

December 20, 2010

in either Postscript or PDF format electronically via the submission page:

<http://www.easychair.org/conferences/?conf=dpdns2011>

All papers will be reviewed.

Notification of authors: January 10, 2011.

Camera-ready papers: February 1, 2011.

The proceedings for workshops will be published (on CD-ROM) along with the regular proceedings for The IEEE International Parallel & Distributed Processing Symposium.

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# DEPENDABILITY OF COMPUTER SYSTEMS



## DepCoS-RELCOMEX 2011

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Organising Committee  
Contact Address

## DepCoS-RELCOMEX 2010

## DepCoS-RELCOMEX 2009

## DepCoS-RELCOMEX 2008

## DepCoS-RELCOMEX 2007

## DepCoS-RELCOMEX 2006

## Sixth International Conference on Dependability of Computer Systems DepCoS-RELCOMEX 2011

[Submit abstract](#)



Brunow Palace  
June 27 - July 1, 2011

*Organised by*

Wrocław University of Technology  
Institute of Computer Engineering, Control and Robotics

[Previous DepCoS-RELCOMEX conferences \(2006-09\)](#)

Published by:





# The 41<sup>st</sup> Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2011)

Hong Kong, China

June 27 – 30, 2011

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## CALL FOR CONTRIBUTIONS

DSN 2011 will feature a number of coordinated tracks, including: The Dependable Computing and Communication Symposium (DCCS), the Performance and Dependability Symposium (PDS), several workshops, tutorials, a student forum, and fast abstract sessions. We invite you to contribute to this premier conference by submitting to any of the categories below.

Regular Papers:	Present recent research results with an archival quality conference publication
Practical Experience Reports:	Provide an in-depth description of practitioner experience or a case study
Demonstrations:	Describe and demonstrate a piece of software, system, or tool
Panels:	Discuss and debate topics of high interest to the dependability community
Workshops:	Opportunities for focused discussion on selected topics in a group setting
Tutorials:	Provide short courses on dependability techniques and theories
Fast Abstracts:	Present a very brief abstract on a topic of interest
Student Forum:	For PhD students only, mid-length presentations about works-in-progress

Topics of interest for DSN include, but are not limited to:

Architectures for Dependable, Secure and Resilient Computer Systems; Dependability Benchmarking, Modeling and Prediction; Dependability of High-Speed Networks and Protocols; Dependability and security of hardware technologies (VLSI, Systems and networks on chip, nanoarchitectures, etc.); E-Commerce Dependability; fault-Tolerance in Transaction Processing Systems, Distributed Systems, Embedded and Real-Time Systems, Mobile Systems and Multimedia Systems; Internet Dependability and Quality of Service; Adaptable, Survivable and Intrusion-Tolerant Systems; Safety-Critical Systems and Critical Infrastructures; Software Testing, Validation and Verification; Software Reliability; Performance and Dependability Assessment by means of Measurement, Analysis and Simulation Techniques, Tools and Results; Dependability and Security of Sensor, Wireless, and Ad-hoc Networks; Failure, Vulnerability and Threat Analysis and Assessment.

A detailed call for papers will be available at: <http://www.dsn.org>

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## Submission Hard Deadlines

Full Papers:	December 10, 2010	Workshop Proposals:	October 15, 2010
Practical Experience Reports:	December 10, 2010	Tutorial Proposals:	January 21, 2011
Demonstrations:	December 10, 2010	Fast Abstracts:	April 8, 2011
Panel Proposals:	December 10, 2010	Student Forum:	April 8, 2011





# The 41<sup>st</sup> Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2011)

Hong Kong, China

June 27 – 30, 2011

## *An invitation to participate from the DSN 2011 General Chair:*

The Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN) is the premier international conference for presenting the very best research results, problem solutions, and insight on new challenges facing the field of dependability and security. These challenges have always been significant in the IT-permeated modern society, and meeting them is essential to economic prosperity, global stability, and societal/personal safety. DSN has pioneered the fusion between security and dependability, addressing the need to simultaneously fight against cyber attacks, accidental faults, design errors, and unexpected operating conditions. Over the past 40 years, DSN has developed into the flagship conference in the systems research area, specializing in both dependability and security issues and solutions.

DSN 2011 conference is devoted to a set of rich program, including plenary talks, regular papers, experience reports, panels, student forum, fast abstracts, demonstrations of tools and technologies, debate sessions, together with state-of-the-art workshops and tutorials. We need your contribution and participation to make it a successful event to continue our 40 years of celebration for excellence!

## *Conference Venue:*

DSN 2011 will be held at Sheraton Hong Kong Hotel & Towers, located at the top of Kowloon's Gold Mile and right in front of Victoria Harbour.

Hong Kong is the heart of Asia, where its magnificent harbour has been the key to its development as a trading port and entrepot for China, progressing through an industrial era to become a leading financial and services centre in Asia. The unique blend of eastern and western influences, matched by diverse attractions and stunning countryside, has also made Hong Kong as Asia's prime tourist destination. Hong Kong offers a host of memorable tourist attractions within its compact area,

with The Peak, Victoria Harbour and the Giant Buddha among the most awe-inspiring. Visitors will be amazed by the diverse contrasts and close proximity of stunning cityscapes and soaring mountains, heritage sites and extensive green countryside.

General Chair:	Michael R. Lyu (The Chinese Univ. of Hong Kong, Hong Kong)
Conference Coordinator:	Sy-Yen Kuo (National Taiwan Univ., Taiwan)
DCCS Program Chair:	Saurabh Bagchi (Purdue Univ., USA)
PDS Program Chair:	Susanna Donatelli (Univ. of Torino, Italy)
Workshop Co-Chairs:	Jiannong Cao (The Hong Kong Polytechnic Univ., Hong Kong) Kaustubh Joshi (AT&T Labs, USA)
Student Forum Co-Chairs:	Bojan Cukic (West Virginia University, USA) Mohamed Kaaniche (LAAS-CNRS, France)
Fast Abstract Co-Chairs:	Zbigniew Kalbarczyk (University of Illinois, USA) Helia Naeimi (Intel, USA)
Poster Co-Chairs:	Ji Wang (National University of Defense Technology, China) Yan Chen (Northwestern University, USA) Bin Xiao (The Hong Kong Polytechnic Univ., Hong Kong) Jie Xu (University of Leeds, UK)
Tutorial Chair:	Robert Swarz (The MITRE Corporation, USA)
BoF Chair:	Jogesh Muppala (Hong Kong Univ. of Sci. & Tech., Hong Kong)
Publication Chair:	Irwin King (The Chinese Univ. of Hong Kong, Hong Kong)
Finance Chair:	Roy Ko (Hong Kong Productivity Council, Hong Kong)
Local Arrangement Chair:	K.T. Yung (Hong Kong Productivity Council, Hong Kong)
Fund-Raising Chair:	S.C. Chao (Applied Sci. and Tech. Research Institute, Hong Kong)
Publicity Co-Chairs:	Chuck Weinstock, (SEI, USA)

## Sponsorship:



IEEE Computer Society  
Technical Committee on  
Dependable Computing and  
Fault Tolerance



IFIP WG 10.4 on  
Dependable  
Computing and  
Fault Tolerance



## Call for Papers



Technical Sponsor

# SSIRI 2011

Jeju Island, Korea, 27-29 June, 2011

<http://paris.utdallas.edu/ssiri11>



## The Fifth International Conference on Secure Software Integration and Reliability Improvement

SSIRI 2011 is the fifth annual conference technically sponsored by the IEEE Reliability Society with a focus on software security and reliability. It brings together a wide range of researchers and practitioners to present their on-going ideas, experiences, and outcomes of most recent research, and to exchange their best-of-breed practices for developing reliable, secure, and trustworthy software systems in a more effective and efficient way. It not only allows the academic community to gain an increased awareness of the areas that are vital to the software industry, but it also grants practitioners an opportunity to express their needs. The conference will be held at Jeju Island, Korea with three major tracks: research papers, fast abstracts and the student doctoral program. Additional workshops with more focused topics will also be held concurrently.

### TOPICS OF INTEREST

- ◆ Security, Reliability, Availability, and Safety of Software Systems
- ◆ Fault Tolerance for Software Reliability Improvement
- ◆ Modeling, Prediction, Simulation, and Evaluation
- ◆ Validation, Verification, and Testing
- ◆ Metrics, Measurements, and Analysis
- ◆ Software Integration
- ◆ Methods and Theories
- ◆ Automation and Tools
- ◆ Industry Best Practices
- ◆ Benchmark and Empirical Studies

### IMPORTANT DATES

- |                      |                         |                      |  |
|----------------------|-------------------------|----------------------|--|
| ◆ November 15, 2010: | Workshop proposals due  | ◆ February 10, 2011: | Student Doctoral Program due           |
| ◆ January 15, 2011:  | Regular papers due      | ◆ March 10, 2011:    | Author notification                    |
| ◆ February 10, 2011: | Fast Abstract Track due | ◆ April 1, 2011:     | Camera-ready & author registration due |

### SUBMISSION

Submit original manuscripts (not published or considered elsewhere) with a maximum of ten pages (regular paper), eight pages (workshop paper), six pages (Student Doctoral Program), and two pages (Fast Abstract Track). Each paper should include a title, and the name and affiliation of each author. Except for the Fast Abstract Track, each submission should also include a 150-word abstract and up to 6 keywords. The format of your submission must follow the guidelines for IEEE conference proceedings ([http://www.ieee.org/conferences\\_events/conferences/publishing/templates.html](http://www.ieee.org/conferences_events/conferences/publishing/templates.html)). The first author of a Student Doctoral Program submission must be a student. At least one Best Paper Award will be presented by SSIRI 2011. Detailed instructions for electronic paper submission and the review process can be found at <http://paris.utdallas.edu/ssiri11>.

### Conference Proceedings & IST Journal Special Section

The conference proceedings will be published by IEEE Press and made available in the IEEE digital library. Papers in the proceedings are also included in the Ei Compendex database. Authors of selected best papers from the conference will be invited to submit an extended version to a special section of *Information and Software Technology* (IST) published by Elsevier.

### ORGANIZING COMMITTEE

- |                             |                     |                             |  |
|-----------------------------|---------------------|-----------------------------|--|
| ◆ <b>Organization Chair</b> | Sooyong Park        | Sogang University, Korea    | <a href="mailto:sypark@sogang.ac.kr">sypark@sogang.ac.kr</a>         |
| ◆ <b>Program co-Chairs</b>  | Jongmoon Baik       | KAIST, Korea                | <a href="mailto:jbaik@kaist.ac.kr">jbaik@kaist.ac.kr</a>             |
|                             | Fabio Massacci      | Università di Trento, Italy | <a href="mailto:Fabio.Massacci@unitn.it">Fabio.Massacci@unitn.it</a> |
|                             | Mohammad Zulkernine | Queen's University, Canada  | <a href="mailto:mzulker@cs.queensu.ca">mzulker@cs.queensu.ca</a>     |

### STEERING COMMITTEE

- |                           |                                   |                        |                                   |
|---------------------------|-----------------------------------|------------------------|-----------------------------------|
| ◆ W. Eric Wong (co-Chair) | University of Texas at Dallas/USA | ◆ Sam Keene (co-Chair) | IEEE Reliability Society/USA      |
| ◆ Fevzi Belli             | University of Paderborn/Germany   | ◆ Karama Kanoun        | LAAS-CNRS/France                  |
| ◆ Raymond Paul            | Department of Defense/USA         | ◆ Ji Wang              | Nat. Univ. of Defense Tech./China |

### GENERAL INQUIRIES

For more detailed and updated information, please refer to <http://paris.utdallas.edu/ssiri11> or contact Professor Sooyong Park, Organization Chair at [sypark@sogang.ac.kr](mailto:sypark@sogang.ac.kr) or Professor W. Eric Wong, co-Chair, Steering Committee at [wong@utdallas.edu](mailto:wong@utdallas.edu).

# 3<sup>rd</sup> Workshop on Dependable Many-Core Computing (DMCC 2011)

## CALL FOR PAPERS

As part of  
**The International Conference on High Performance Computing & Simulation (HPCS 2011)**  
<http://hpcs11.cisedu.info/>

In conjunction with  
The 7<sup>th</sup> International Wireless Communications and Mobile Computing Conference (IWCMC 2011)

**July 4 – July 8, 2011**  
**Istanbul, Turkey**



**Submission Deadline: January 11, 2011**

### **SCOPE AND OBJECTIVES**

Today, the integration of many cores is common - and the end of the road is not in sight. These many-core architectures bring up unprecedented capabilities, opportunities, as well as challenges. The more transistors are integrated on a chip and the more cores are introduced, the more faults can be asserted. These faults arise either during fabrication or operation. As the fabrication costs are continuously rising, it is most important to increase the output of a fab by software, architectural, or physical means. This workshop addresses issues and solutions through dependable software or hardware design of many-core systems.



**The Workshop topics include (but are not limited to) the following:**

- Dependable Many-Core Architectures
- Power-Aware Many-Core Design
- Dependable & Secure Many-Core Designs
- Many-Core Development and Design Tools
- Simulation Techniques
- System-Level Many-Core Implementation
- Many-Core Interconnect Technology
- Many-Core System-On-Chip Development
- Reconfigurable Computing and FPGAs
- Design for Testing
- Hardware and Software Debug Facilities
- Many-Core Programming and Optimization
- Application Partitioning and Load Balancing
- Hypervisors and Virtual Machine Technology
- Trusted and Untrusted Environments
- Virtualization for Dependability
- Dependability through Multi-Threading
- Fault Detection on the Physical Layer
- Fault-Tolerant Software Design
- Fault-Tolerant Hardware Design
- Fault-Tolerant HW/SW Co-Design

## **PAPER SUBMISSIONS**

Submitted papers must not have been published or simultaneously submitted elsewhere. Submission should include a cover page with authors' names, affiliation addresses, fax numbers, phone numbers, and authors email addresses. Please, indicate clearly the corresponding author and include up to 6 keywords from the above list of topics and an abstract of no more than 450 words. The full manuscript should be at most 7 pages using the two-column IEEE format. Additional pages will be charged additional fee. Please include page numbers on all preliminary submissions to make it easier for reviewers to provide helpful comments. Submit a PDF copy of your full manuscript via email to the Workshop organizer at [Bernhard.Fechner@fernuni-hagen.de](mailto:Bernhard.Fechner@fernuni-hagen.de).

Only PDF files will be accepted. Each paper will receive a minimum of three reviews. Papers will be selected based on their originality, relevance, technical clarity and presentation. Authors of accepted papers must guarantee that their papers will be registered and presented at the workshop. Accepted papers will be published in the conference proceedings which will be made available at the time of the meeting.

If you have any questions about paper submission or the workshop, please contact the organizer.

## **IMPORTANT DATES**

**Paper Submissions: ----- January 11, 2011**  
**Acceptance Notification: ----- March 14, 2011**  
**Camera Ready Papers and Registration Due: ----- April 14, 2011**  
**Conference Dates: ----- July 4 – 8, 2011**

## **WORKSHOP ORGANIZER**

### **Bernhard Fechner**

FernUniversität in Hagen  
Universitätsstraße 1,  
58084 Hagen, Germany  
Phone: +49 (2331) 987 4414  
Fax: +49 (2331) 987 308  
Email: [Bernhard.Fechner@fernuni-hagen.de](mailto:Bernhard.Fechner@fernuni-hagen.de)

### **International Program Committee:**

All submitted papers will be rigorously reviewed by the workshop technical program committee members following similar criteria used in HPCS 2011.

- **Koen de Boeschere**, University of Ghent, Belgium
- **Jörg Keller**, FernUniversität in Hagen, Germany
- **Jens Lisner**, TÜV Nord, Germany
- **Wei Liu**, Intel Labs, USA
- **Andre Osterloh**, BTC Oldenburg, Germany
- **Volkmar Sieh**, University Erlangen-Nuremberg, Germany
- **Peter Sobe**, University of Lübeck, Germany
- **Sascha Uhrig**, University of Augsburg, Germany
- **Osman Unsal**, Barcelona Supercomputing Center, Spain

If you have any questions about the HPCS 2011 conference paper submission, please contact Conference Program Chair: **Waleed W. Smari**, Voice: +1 (937) 681-0098, Email: [smari@arys.org](mailto:smari@arys.org) or consult the conference web site at <http://hpcs11.cisedu.info/>.

## Call for Papers

The 37th Euromicro Conference on Software Engineering and Advanced Applications (SEAA) will bring together people from business, industry, research, and academia who are working in software engineering and information technology. Over the years, Euromicro SEAA conferences have reflected and represented the continuous changes in technology and application areas. The aim of the conference is to proceed with this, focusing on software engineering and new, innovative and advanced software applications, with the guiding topic “software-intensive systems in the cloud”.

### Important dates

- Proposal for workshops accompanying SEAA 2011: January 20, 2011
- Paper submission: March 1, 2011
- Papers and experience reports: Will be announced later
  
- PhD Symposium: Will be announced later
- Work in Progress: Will be announced later
  
- Notification of accepted papers: April 15, 2011
- Camera-ready paper due: June 1, 2011
- Conference: August 30 to September 2, 2011 at Oulu, Finland

### Conference Tracks and Sessions

Relevant topics at Euromicro SEAA 2011 are represented by the main conference tracks

-

[Model-Based Development, Components and Services](#) (MOCS)

-

[Software Process And Product Improvement](#) (SPPI)

-

[Software management](#) (SM)

-

[Lean Software Product Development](#) (LSPD)

-

[Resilient Systems, Robotics and Critical Infrastructures](#) (RSRCI)

-

[Embedded Software Engineering](#) (ESE)

In addition there special sessions are planned on

-

[Innovation in Software Development](#) (InnoSD; in the SM track)

-

[Measurement and Metrics of Security in Software and Software Architecture](#) (SecMetS; in the SPPI track)

-

### [Next Generation of Web Computing](#)

-

### Work in Progress

Euromicro SEAA 2011 encourages the submission of technical research papers and experience reports. Papers must contain original unpublished work, describe significant novel contributions, and provide evidence on the validation of results. In particular, reports on industrial applications are welcome.

IEEE Computer Society Press will publish accepted papers in the conference proceedings and the IEEE Xplore Digital library. In addition authors of selected papers will be invited to revise and re-submit extended versions of their conference papers for consideration for a special issue of the Journal of Embedded Software Design (Elsevier) and a journal on software engineering topics.

Instructions for paper submission can be found from the [Submission](#) page.

The conference will provide awards for the best papers in the categories research paper, industrial experience, and PhD research plan.

For PhD students there will be a full-day doctoral symposium with feedback from senior experts in the SEAA community and tutorials.

### **Important dates:**

- Proposal for workshops accompanying SEAA 2011: January 20, 2011

- Paper submission: March 1, 2011
- Notification of accepted papers: April 15, 2011
- Camera-ready paper due: June 1, 2011
- Conference: August 30 to September 2, 2011 at Oulu, Finland

More information on the conference is available at [euromicro2011.oulu.fi](http://euromicro2011.oulu.fi)





# ESREL 2011

Annual conference

18-22 September 2011 | Troyes, France

## Conference chairman

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## Conference Secretariat

E-mail: [esrel2011@utt.fr](mailto:esrel2011@utt.fr)

Submission of abstracts : January 15th, 2011

Abstracts should be submitted on the conference website : [www.esrel2011.com](http://www.esrel2011.com)

Submission of full-length papers : March 31st, 2011



# ESREL 2011

European Safety & Reliability Conference  
[www.esrel2011.com](http://www.esrel2011.com)

**18-22 September 2011**

Espace Argence

**Troyes France**

## ESREL 2011 Conference

The annual European Safety and Reliability (ESREL) conference stems from a European initiative merging several national conferences into a major annual conference under the auspices of the European Safety and Reliability Association (ESRA, [www.esrahomepage.org](http://www.esrahomepage.org)).

Safety, reliability and risk management become more and more important in an always more challenging and competitive environment, in every industry and human activity: multidisciplinary approaches to safety & reliability engineering and risk management become more and more necessary and attractive. ESREL 2011 conference will provide a forum for presentation and discussion of scientific works covering theories and methods in the field of risk, safety and reliability, and their application to a wide range of industrial, civil and social sectors and problem areas. ESREL 2011 will also be an opportunity for researchers and practitioners, academics and engineers to meet, exchange ideas and gain insight from each other.

### The Conference Venue

After La Baule in 1994 and Lyon in 2002, ESREL will be held in France in 2011 and Troyes has been selected as the venue for the upcoming ESREL 2011.

Troyes, the ancient capital of Champagne, is located on the Seine river near Paris (150km south-east) and is well known for its heritage of the 16th century. The textile tradition of Troyes goes back to the Middle Ages, when the great Champagne Fairs were held in the city of Troyes. At the XIX century, Troyes becomes the European capital of hosiery and mesh. The city is rich in art and history and it shows the memory of this period with its cobbled streets, its half-timbered houses, its renaissance town houses and Champagne checkerboard facades. Troyes reveals various museums (e.g. museum of hosiery, museum of craft tools and work reflexion, but also museum of modern art), many stained glasses of XIII at the XIX century and the vicinity of Troyes exhibits its vineyard of the great Champagne.

The thriving economy of Troyes and the Champagne Region lies in its diversity starting from historic textile and knitwear industries towards services and higher added value enterprises.

The conference program will give you an opportunity to enjoy all of this in addition to a strong technical content. For more information, planning your stay and enjoying friendly welcoming atmosphere visit <http://www.tourism-troyes.com>

Troyes University of Technology (UTT - <http://www.utt.fr>), established in 1994, has developed undergraduate and graduate programs in reliability and safety engineering and risk management. An important part of the research developed at UTT is organized around "Sciences and Technologies for Risk Management", following a multidisciplinary approach.

## Thematic Areas

1. Accident and Incident investigation
2. Bayesian methods
3. Biological Risk from Industrial Activities
4. Consequence Modeling
5. Crisis and Emergency Management
6. Decision Support Systems and Software Tools for Safety and Reliability
7. Dynamic Reliability
8. Fault Identification, Prognosis & Diagnostics
9. Human Factors
10. Integrated Risk Management and Risk-Informed Decision-making
11. Legislative Dimensions of Risk Management
12. Maintenance Modelling and Optimisation
13. Major Disasters and Public Health
14. Monte Carlo Methods in System Safety and Reliability
15. Occupational Safety
16. Organizational Learning
17. Reliability and Safety Data Collection and Analysis
18. Risk and Evidence-Based Policy Making
19. Risk and Hazard Analysis
20. Risk Control in Complex Environments
21. Risk Perception and Communication
22. Safety Culture
23. Safety Management Systems
24. Software Reliability
25. Stakeholder and Public Involvement in Risk Governance
26. Structural Reliability and Design Codes
27. System Reliability Analysis
28. Uncertainty and Sensitivity Analysis
29. Fault Tolerant Control & Systems

## Industrial & Service Sectors

- A. Aeronautics and Aerospace
- B. Automotive Engineering
- C. Biotechnology and Food Industry
- D. Chemical Process Industry
- E. Civil Engineering
- F. Critical Infrastructures
- G. Electrical and Electronic Engineering
- H. Energy Production and Distribution
- I. Environmental Engineering
- J. Health, Medicine and Patient Safety
- K. Information Technology and Telecommunications
- L. Insurance and Finance
- M. Manufacturing
- N. Marine Industry
- O. Mechanical Engineering
- P. Natural Hazards
- Q. Nuclear Engineering
- R. Offshore Oil and Gas
- S. Public Planning
- T. Policy Decisions
- U. Security and Protection
- V. Surface Transportation (road and train)
- W. Waterborne Transportation

Abstracts and manuscripts will be reviewed by the technical programme committee in accordance with standard practice and the criteria for the conference. Final acceptance of the papers is based on review of the full papers. The official language of the conference will be English.

## Scientific Sponsors



## Technical Co-Sponsors



## Industrial Sponsors



## Organizers



## Main Sponsor



The 30th International Conference on  
Computer Safety, Reliability and Security

## Conference venue



Safecom 2011 will be held in Naples, Italy. Naples is a wonderful city on the sea, close to many interesting sites such as the archeological cities of Pompei and Ercolano and the famous islands Capri and Ischia. Naples was founded by a Greek colony in the 9-8th century BC, and from then on, it has been the crossroad of several civilizations and an important cultural centre in Europe. Museums, castles, churches, squares, alleys and archaeological remains make Naples a fascinating city; its historic centre is listed by UNESCO as a World Heritage Site. History, art, culture and gastronomy are only some of the aspects of a complex world: light and darkness are the two facets of a city whose metropolitan area is the second most populated in Italy and one of the largest in Europe.

## About Safecom

Since it was established in 1979 by the European Workshop on Industrial Computer Systems, Technical Committee 7 on Reliability, Safety and Security (EWICS TC7), SAFECOMP has contributed to the progress of the state-of-the-art in dependable application of computers in safety-related and safety-critical systems. SAFECOMP is an annual event covering the state-of-the-art, experience and new trends in the areas of safety, security and reliability of critical computer applications. SAFECOMP provides ample opportunity to exchange insights and experience on emerging methods, approaches and practical solutions. It is a one-stream conference without parallel sessions, allowing easy networking.

### More information

[www.safecom2011.unina.it](http://www.safecom2011.unina.it)  
[www.ewics.org](http://www.ewics.org)

## Secretariat SAFECOMP 2011

Dipartimento di Informatica e Sistemistica (DIS)  
Università degli Studi di Napoli "Federico II"  
Via Claudio 21, 80125 Napoli, Italia  
Email: [safecom2011@unina.it](mailto:safecom2011@unina.it)  
Fax: ++39 081 768 3816  
Tel. ++39 081 768 3847

19 - 21 September 2011  
Naples, Italy

## PRELIMINARY CALL FOR PAPERS





## Safecomp 2011 Key Theme

Safety and security of computer-based systems and infrastructures:  
from risk assessment to threat mitigation

The criticality of computers employed in complex information infrastructures and control systems is rapidly growing. Complexity is a result of size, distribution and heterogeneity. Size refers to the number of functionalities requested to modern computers, which imply larger programs and databases. Distribution is an effect of the need for networked ubiquitous devices required by modern applications. Heterogeneity is given by the diverse hardware and software architectures involved in the design.

The criticality attribute is related to the domains in which computer systems operate, whereas a failure can cause a significant loss of money, injuries, kills or even natural disasters.

That scenario requires novel methods and tools in order to assure the dependability of computer systems, taking into account their interaction with other entities in terms both of the negative effects of the system upon the external environment (safety) and of the external environment upon the system (security).

Among other things, in order to enhance the effectiveness and efficiency of the development and assessment process, model-based or model-driven techniques are needed which support holistic analyses at different stages of system life-cycle, through abstraction, hierarchy and modularity. Those techniques should be such to enable a rigorous (possibly automated) systemic process allowing engineers to design and fine-tune appropriate cost-effective countermeasures starting from the risk assessment results.

**The best presentation will be awarded free attendance to Safecomp 2012.**

## Tutorials and Exhibition

Tutorial and workshop proposals are welcome and should be submitted to the conference secretariat.

A dedicated space will be available for a Technical Exhibition and a Tool Fair in the communication area where coffee breaks and lunches take place.

Organisations wishing to present their products or projects are invited to request further information from the conference secretariat.

## Important dates

**Abstract submission:** 27 February 2011

**Full paper submission:** 21 March 2011

**Tutorial/Workshop proposal submission:** 15 April 2011

**Notification of acceptance:** 9 May 2011

**Camera-ready submission:** 13 June 2011

## Scope of the Conference

Papers are invited in application and industrial sectors as well as research areas. Topics of interest include, but are not limited to:

Application and Industrial Sectors: aerospace and avionics, automotive, industrial process control, networking & telecommunication, railways, robotics and autonomous systems in general, medical devices and systems, e-health, off-shore technology, ship building, power systems, critical infrastructures, security of safety-critical systems, safety guidelines and standards, education & training.

**Especially papers on industrial experience and practice are encouraged.**

Research Areas: safety & security risk assessment, design for dependability, diversity, fault tolerance, verification & validation, testing, qualification and certification, modelling and simulation, human factors, dependability analysis, networked (distributed) embedded systems, safety-critical computer systems, resilient (robust) systems, embedded intelligence, software and hardware for critical systems, methods, techniques and tools.

**A detailed call for contributions will be available at:**  
<http://www.safecomp2011.unina.it>

## Conference Proceedings and Journal Special Issue

After acceptance by the International Programme Committee the final paper is required in electronic version according to templates provided by the publisher. Accepted papers will appear in the conference proceedings published by Springer-Verlag in the series Lecture Notes in Computer Science (LNCS).

Extensions of the best papers will be considered for publication in a Special Issue of the International Journal on Reliability Engineering and System Safety (RESS) published by Elsevier.

## Chairs

### EWICS Chair:

Francesca Saglietti (Univ. of Erlangen-Nuremberg)

### Honorary Chairs:

Giovanni Bocchetti (Ansaldo STS)

Giorgio Franceschetti (Univ. of Naples Federico II)

Antonino Mazzeo (Univ. of Naples Federico II)

### PC Chairs:

Francesco Flammini (Ansaldo STS)

Sandro Bologna (ENEA)

### Local Chairs:

Nicola Mazzocca (Univ. of Naples Federico II)

Concetta Pragliola (Ansaldo STS)

Roberto Setola (Univ. Campus Biomedico di Roma)

Valeria Vittorini (Univ. of Naples Federico II)

## International Programme Committee

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**Call For Papers**  
**IEEE SRDS 2011**  
**30<sup>th</sup> International Symposium on Reliable Distributed Systems**  
**October 4-7, 2011, Madrid, Spain**  
**<http://lsd.ls.fi.upm.es/srds2011>**

**Symposium Chair**

Ricardo Jimenez-Peris, Universidad Politécnica de Madrid, Spain

**Technical Program Committee Co-Chairs**

Fernando Pedone, University of Lugano, Switzerland

Sanjay Madria, Missouri University of Science and Technology, USA

**Technical Program Committee**

TBA

The Symposium on Reliable Distributed Systems is a forum for researchers and practitioners interested in distributed systems design, development and evaluation, particularly with emphasis on reliability, availability, safety, security, trust and real time. We welcome original research papers as well as practical experience reports that deal with design, development and experimental results of operational systems.

**Topics of Interest**

The major areas of interest include, but are not limited to, the following topics:

- \* Cloud computing and virtualization: X-as-a-Service
- \* Autonomic, pervasive, ubiquitous and diffuse computing
- \* Secure and trusted systems
- \* Secure and dependable web services
- \* High-confidence systems
- \* Parallel and distributed operating systems
- \* Distributed objects and middleware systems
- \* Fault-tolerant and secure sensor nets and wireless ad-hoc networks
- \* Event-based and peer-to-peer infrastructures
- \* Distributed databases and transaction processing
- \* Distributed multimedia systems
- \* Grid Computing
- \* Electronic commerce and enabling technologies
- \* Formal methods and foundations for dependable distributed computing
- \* Analytical or experimental evaluations of dependable distributed systems
- \* Distributed algorithms
- \* Internet-based systems and applications
- \* Wireless and ad-hoc networks
- \* QoS control and assessment
- \* Trust and scalable system design in social networks

**Submission Guidelines**

Papers must be written in English. Regular Papers describing original research as well as design, development and experimental results of operational systems, and Practical Experience Reports describing on-going industrial projects, prototype systems and exploratory or emerging applications, should be no longer than 10 pages, following the IEEE two-column format for conference proceedings, in font size no smaller than 10 points, and must fit properly on US "Letter"-sized paper (8.5 x 11 inches). All papers that deviate from these specifications will be rejected automatically.

Authors are requested to first register their submissions and submit their manuscripts in PDF format. Submission details can be found at <http://lsd.ls.fi.upm.es/srds2011>. Accepted papers will appear in the symposium proceedings, which will be published by the IEEE Computer Society.

**Publicity Chairs**

Roman Vitenberg, University of Oslo, Norway

Sriram chellappan, Missouri University of Science and Technology, USA

**Finance Chair**

Marta Patiño, Universidad Politécnica de Madrid, Spain

**Local Arrangements Chair**

Claudio Soriente, Universidad Politécnica de Madrid, Spain

**Publication Chair**

Antonio Casimiro, Universidade de Lisboa, Portugal

**Workshop Chairs**

Paolo Lollini, University of Florence, Italy

Leszek Lilien, Western Michigan University, USA

**SC Liaisons**

Bharat Bhargava, Purdue University, USA

**Workshops**

Workshops will be held in conjunction with SRDS 2011 on October 4, 2011.

**Additional Information**

Please visit the symposium homepage (<http://lsd.ls.fi.upm.es/srds2011>) for detailed information and updates.

**In cooperation with**



POLITÉCNICA



**Important dates**

Abstract submission: **March 27, 2011 (required)**

Full Paper submission: **April 3, 2011**

Author notification: **June 13, 2011**

Camera-ready: **July 15, 2011**

**Sponsored by**

IEEE Computer Society Technical Committee on Distributed Processing (TCDP)

# The 22<sup>nd</sup> International Symposium on Software Reliability Engineering (ISSRE 2011)

## First Call for Papers

## November 14-17, 2011

## Tokyo, Japan



### Organization

#### Honorary General Chair:

Mitsu Ohba, *Hiroshima City University, Japan*

#### General Chair:

Tadashi Dohi, *Hiroshima University, Japan*

#### Program Chair:

Bojan Cukic, *West Virginia University, USA*

### Important Dates

April 15, 2011: Workshop Proposal Due

May 1, 2011: Research Paper Abstract Submission Due

May 10, 2011: Research Paper Submission Due

May 30, 2011: Tutorial Proposal Due

August 1, 2011: Industry Track Paper Submission Due

### Sponsored by

IEEE Computer Society

IEEE Reliability Society

Association of Software Test Engineering (ASTER)

### In Cooperation with

The Institute of Electronics Information and Communication Engineers (IEICE)

Information Processing Society of Japan (IPSJ)

Reliability Engineering Association of Japan (REAJ)

Japan Society for Software Science and Technology (JSSST)

Japan Embedded Systems Technology Association (JASA)

Software Engineers Association (SEA)

"Tokyo Sky Tree®" debuts in spring, 2012. This picture image was provided by TOBU RAILWAY CO., LTD. & TOBU TOWER SKY TREE CO., LTD.

## Objective

The 22nd annual International Symposium on Software Reliability Engineering (ISSRE 2011) is focused on innovative techniques and tools for assessing, predicting, and improving the reliability, safety, and security of software products. ISSRE also emphasizes industrial relevance and rigorous empirical studies. ISSRE is sponsored by the IEEE Computer Society and the IEEE Reliability Society. It has grown to become the leading conference in the area and one of the few that attracts the technical leadership from both Academia and Industry. In the tradition of ISSRE, we have had an almost even split (50-50) between Academia and Industry - a rare achievement for any conference. ISSRE focuses on the theory and practice of software systems reliability engineering. Research papers are extensively reviewed by a large program committee and the selected papers are coveted. An Industrial committee separately reviews papers for the Industry track looking for relevance and applicability. ISSRE has some of the best Industry case studies reported. ISSRE Workshops have picked up considerable momentum. In average we have had over 100 participants in several workshops. Some of the workshops are becoming regulars - in that those communities meet year after year at ISSRE (Embedded Systems Reliability, and Software Rejuvenation). We hope to build these communities and seed new ones that are vital to current interests in Research and Industry.

## Scope

The followings are a few of the areas that ISSRE covers in papers, fast abstracts, workshops, tutorials, and keynotes, but are not limited:

- Reliability, availability, and safety
- Security
- Validation and verification
- Testing
- Quality
- Fault tolerance, survivability, and resilience
- Development practices for security
- Industry best practices
- Empirical case studies
- Services reliability engineering
- Open source software reliability engineering
- Metrics and measurements, estimation, prediction of quality/reliability
- Systems (hardware + software) reliability engineering
- Supporting tools and automation

<http://2011.issre.net/>



## Aufnahmeantrag

Formulare für den Beitritt zur Fachgruppe **Fehlertolerierende Rechensysteme (FERS)** finden Sie auf den nachfolgend aufgeführten Webseiten, wobei zwei verschiedene Arten des Beitritts möglich sind:

Wenn Sie nicht der GI angehören, müssen Sie als Typ der **Mitgliedschaft "assoziertes Mitglied"** wählen (Jahresbeitrag Euro 15,-); das zugehörige Formular finden Sie unter

[http://www.gi-ev.de/fileadmin/redaktion/Mitglieder-Service/Fach\\_Ass.pdf](http://www.gi-ev.de/fileadmin/redaktion/Mitglieder-Service/Fach_Ass.pdf)

Sollten Sie bereits Mitglied der Gesellschaft für Informatik sein, gilt das Anmeldeformular für **GI-Mitglieder**:

<http://www.gi-ev.de/fileadmin/redaktion/Mitglieder-Service/Fach.pdf>

(in diesem Fall beträgt der Jahresbeitrag Euro 7,50).

Da die Fachgruppe **Fehlertolerierende Rechensysteme** eine Doppelmitgliedschaft bei zwei GI-Fachbereichen besitzt und bei den Fachbereichen die Mitgliedschaften der FG-Mitglieder geführt werden, können Sie formal entweder

- der Fachgruppe **FERS/TI** (Ihre Mitgliedschaft wird beim GI-Fachbereich **Technische Informatik** geführt) oder
- **FERS/SI** (Ihre Mitgliedschaft wird beim GI-Fachbereich **Sicherheit** geführt)

beitreten. Diese Wahl hat für Sie keinerlei sonstige Auswirkungen.