Call for Papers

Integration & Interoperability

The ubiquitous spread of the Internet and the World Wide Web has had a twofold impact on software and systems engineering: it has impacted the way enterprises interact with their customers and partners, and it has changed the way they develop software applications. Among the more common approaches that are being used are service-oriented architectures, web services, SAAS, cloud computing, P2P, grids, JBI and SCA. These approaches leverage the distributed nature of the systems to make them more flexible, adaptable, and better suited to users' needs. In contrast to the tightly-coupled designs of older technologies, modern software and systems deliver capability through a kaleidoscope of loosely-coupled elements riding on infrastructure. Oftentimes project management is also a distributed process. Not only are teams geographically spread, but also a team must cooperate with members outside their own organization in order to successfully complete a project. Software and systems producers can no longer act in total isolation – they must themselves become dependent on component or service providers, on VAR's, and even on proactive customers.

Sponsored by AFIS (the French Association for Systems Engineering, the French Affiliate to INCOSE) and co-organized by TELECOM ParisTech, CS Communication & Systems, and the Génie Logiciel quarterly, the 23rd edition of the ICSSEA Conference (International Conference on Software & Systems Engineering and their Applications) will be held in Paris on November 29 to December 1st, 2011. By gathering actors from across the enterprise and research worlds, it aims at providing a critical survey of the status of tools, methods, and processes for elaborating software & systems. Lectures and discussions will be conducted with the issues of integration and interoperability in software and systems as the leitmotiv.

TOPICS

As in previous ICSSEA Conferences, any topic in connection with software engineering & systems engineering is eligible. However, the following topics, viewed through the perspective of systems and services integration and interoperability, will be particularly appreciated:

- Architectures: composition, orchestration, semantically-enabled SOA, ontology-based technologies...
- Components & reusability
- Development methods: agile, lean, contract-oriented development…
- Distributed computing: service-oriented computing, grid services, Web services, mobile applications...
- Evolution: adaptability, maintainability, variability...
- Management of functional and non-functional properties: analysis & design, representation, modeling, monitoring, composition, configurability, relationship with architecture, resolution of conflicts, aspect orientation, metrics for non-functional properties, semantic issues...
- Man-system interfaces: ergonomics, interaction, cognitive engineering…

- Open source issues: architectures for seamless integration/composition, quality assurance,
- Outsourcing issues
- Process engineering with different notations: UML, DoDAF, SysML, the MDA/MDE approaches...
- Project management: conventional methods, agile approached...
- Quality control & assurance: quality assessment, testing, V&V...
- Quantitative evaluations: architecture, availability, performance, quality, reliability, safety...
- Requirements engineering
- Software platforms specific of application domains
- Systems engineering and Systems of systems
- Web engineering: design, composition, control flow, user interface migration, discovery and selection of services, ontology engineering...

Original, unpublished papers are solicited. They may concern industrial implementations or experiments, describe significant results from ongoing projects, research results applicable to industrial applications, or deal with socioeconomic issues associated with software & systems engineering. Offerors may also propose tool demonstrations and posters presentations. All submissions should clearly describe the nature of the work to be presented, explain its contribution, highlight its novel features, and state precisely its current status.

All types of systems are eligible: adaptive, autonomous, context-aware, distributed, embedded, grid computing, mobile, real-time, service-oriented, ubiquitous, Web-based, etc. All end-user domains and economic areas are eligible: information systems, process management, automotive, avionics, banking, defense, energy, health care, insurance, space, telecommunications, transportation, etc.

INSTRUCTIONS TO AUTHORS

Submission and selection of proposed interventions will be conducted as follows:

1- Submit, before May 15, 2011,
- *for industrial implementations and experiments,* a text of at least 1000 words (about 5,000 characters, figures excluded), in English, including the title of the paper, an abstract of about 200 words, and the address, phone and fax numbers as well as the email address of the authors. If already available, a complete text (about 20,000 characters) would be welcome.
- *For applied research results,* a text not exceeding the equivalent of 20,000 characters in length (with figures included), in English, including the title of the paper, a 200-500 word summary, and the address, phone and fax numbers as well as the email address of the authors.
- *For tools demonstrations and posters presentations,* a text not exceeding 2 pages

2- Full papers or extended abstracts will be reviewed by at least three independent reviewers and selected by the International Program Committee.

3- Authors of accepted papers or extended papers will be notified by June 15, 2011 and will receive the recommendations made by the International Program Committee.

4- Authors of accepted abstracts or full papers should provide, before August 1st, 2011, a text not exceeding the equivalent of 20,000 characters in length (with figures included), in the form of a file, in Word format, attached to an electronic message. Final texts will be submitted, for final checking, to the International Program Committee before publication in the Conference Proceedings, which will be available during the event.

5- At least one author is required to register and attend the conference to present the paper

Submission address:
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Others under confirmation