The management of large-scale complex industrial systems has a considerable strategic importance for an important number of enterprises (most notably in Europe and North America). This spawned the relatively new academic field of "system architecture & engineering", producing a body of research that allows engineers to manage the increasing complexity of the technical systems they design. By its very nature, this field is at the interface between industry and academia, and requires its practitioners to be well versed in industrial application-related as well as theoretical knowledge. The ambition of the CSDM conference is to be the meeting point of reference for the industrial and academic environments working in the design and management of complex industrial systems.

Important dates

- Optional abstract pre-submission deadline: January 4, 2010
- Submission deadline: January 22, 2010
- Acceptance notice for industrial contributions: March 15, 2010
- Acceptance notice for academics contributions: March 31, 2010
- Final version submission deadline: May 31, 2010
- Conference: October 27-29, 2010

Submission procedure

As the CSDM conference is both industrial and academic, there will be different submission procedures according to the type of submitted contributions. Industrial submissions are aimed to present good practices in industry, shared experiences and case studies: either a 12-pages PDF-formatted paper or a 15-slides PowerPoint presentation is acceptable for selection purposes. Scientific submissions are aimed to present innovative methodological, technical or scientific results: a 12-pages PDF-formatted paper is necessary for selection purposes. Subject to contribution acceptance, inclusion on the Springer proceedings book requires a 12-pages paper formatted according to specific Springer style files. More details can be found on the conference website.

Proceedings and publications

The conference proceedings will be published in a dedicated 2-volume edited book by SpringerVerlag (Science and Engineering). Selected papers will be published in special issues appearing in international journals covering the conference topics. We already have an agreement with Concurrent Engineering Research and Applications.
Conference topics

• Industrial domains
  o Constructors and operators of transportation systems
  o Defense and security
  o Electronics and robotics
  o Energy and environment
  o Health and welfare services
  o Media and communications
  o Software and e-services

• Scientific and technical topics
  o Systems fundamentals (algorithmics & complexity, control theory, communications, mathematical programming, semantics, systemics, information technology, signal processing)
  o Systems architecture (needs capture, requirements development, systems modelling, simulating, optimization, sizing and specification, architectural frameworks)
  o Systems engineering (design, industrialization, integration, verification, validation, qualification, deployment, maintenance, dismantling)
  o Industrial projects (innovation management, systems project management, agile methods, test oriented methods, project office)
  o Systems metrics (architectural metrics, complexity measures, cost & delay evaluation, key performance indicators, quality of service)
  o Systems quality (analysis and covering of risks, availability, maintainability, operability, reliability, security, safety and usability analyses, tests)
  o Systemic tools (configuration management, formal verification, system behaviour analysis tools, modelling & simulating tools, test management)

• Systems types
  o Embedded systems (electronics, health, telecoms, transport, etc.)
  o Transportation systems (aerospace, automobile, railways, ships, etc.)
  o Software systems (Internet applications, networks, operating systems, parallel and distributed systems, etc.)
  o Information systems (command, control & communication systems, enterprise information systems (BI, CRM, EII, ERP, SCM), industrial information systems (SCADA, PLM, etc.), supervision systems, etc.)
  o Systems of systems (air traffic management, management of financial systems, network centric warfare, travel reservation systems, etc.)
  o Artificial eco-systems (city planning & engineering, integrated hubs, etc.)
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More details

For any question, please write an email to contact@csdm.fr.