



“Developing 21st Century Infrastructure Networks”

9-11 December 2009
SSN College of Engineering, Chennai, India

The conference is sponsored by the *Next Generations Infrastructures Foundation, Center for Study of Science, Technology and Policy (CSTEP), SSN College of Engineering, and the IEEE Systems, Man & Cybernetics Society.*

www.nginfra.nl/conference2009

Conference scope

Infrastructures provide essential functions for economy and society such as transportation, water, communication and energy. While each of these sectors has their own specific characteristics, they have much in common: their adequate operation depends on the effectiveness and interplay of complex physical and institutional or actor networks.

All sectors undergo institutional change, moving from state owned and controlled utilities to conglomerates of unbundled and privatized private companies, operating at increasingly larger and more international scales. Sectors converge and mutual dependencies increase, along both the technological and the institutional dimension. Technological change provides new opportunities as well as threats. Key concerns include accessibility, reliability, security, affordability and sustainability.

The complexity of the infrastructure systems requires scientists of different disciplines to join forces to develop and test theories, models and tools to ensure that the infrastructures of the future will function at their full potential. While many other meetings are sector-specific and narrow in focus, this conference offers a unique opportunity to bridge the gaps across disciplines and sectors, and to build cross-cutting networks to effectively steer infrastructure developments towards a more sustainable and secure future.

Important dates:

August 30, 2009 Deadline for Submission of Full Papers (submission through website)

August 15, 2009 Deadline for Submission of Proposals for Special Sessions, Roundtables and Workshops (email to program chairs)

Dec 9-11, 2009 Conference

Contributions

We solicit contributions of original research relevant to the design and management of present and future infrastructure systems. Relevant topics will include, but are not limited to:

- Dealing with complexity challenges

Complex adaptive systems, systems-of-systems concepts, large-scale systems, complexity science, innovative modelling approaches, complex network theories, emergent behaviour, multi-actor systems, multi-agent modeling

- Impacts and applications of new technologies

Novel ICT applications, intelligent systems, simulation and control, multi-agent control, intelligent communications and transportation

- Flexibility and efficiency of infrasystems

Asset management, dealing with uncertainties, flexibility options, standardization

- Reliability and security in infrastructure service provision

Safety, reliability and quality assurance, security engineering, network robustness and resilience, critical infrastructure protection, cyber-security

- Governance of infrastructures

Market structures, public values, network regulation

Requirements for Papers

Papers should be no more than 6 pages in length (format to be provided via the website) and should include (1) the paper title (2) the names of the authors and their affiliations and (3) full contact details of the corresponding author. While multiple submissions by individuals or groups of authors are welcome, the paper selection process will seek to ensure as broad participation in the conference as possible.

Workshops and roundtables

Proposals to conduct half-day workshops, roundtables or tutorials related to the conference theme will also be considered. Proposals must include (1) workshop title (2) organizers and their affiliations (3) objectives and topics, (4) intended audience and (5) list of speakers and their affiliations.

Special Sessions

Proposals to organise special sessions or tracks, comprising 4-5 papers each, are also invited. These sessions are to provide a forum for focused discussions on new topics, or innovative applications of established approaches. A proposal for a special session must include: (1) a session title (2) the names of the organizers and their affiliations (3) a brief statement of purpose for the session, and (4) a list of authors and paper titles.

Program Chairs

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