

The 3rd IEEE/ACM International Conference on Cyber, Physical and Social Computing (CPSCom2010)



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<http://cse.stfx.ca/~CPSCom2010/>

Further questions, please contact with
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INTRODUCTION

The physical things and the human society have formed into the world we live in, however the emergence of the information technologies that enable the new infrastructure for a technical, economic and social revolution have changed the world we are used to. Cyber-Physical Systems are integrations of computation with physical processes. Embedded computers and networks monitor and control physical processes in feedback loops where physical processes affect computations and vice versa.

Social computing has become more widely known because of the proliferation of online social networking in recent years. With the advent of ubiquitous sensing, future social networks will be cyber-physical, combining measured elements of the physical world with manual human input. Social computing also makes it possible to design digital systems that support useful functionality by making socially produced information available to physical things. Certainly, the cyber physical systems will further benefit from inherent social behaviour thus supply better services.

Therefore, the integration of computational and physical processes as well as human's social behaviour exhibits a variety of complicated systems that cannot be analyzed by the computational or physical or social sciences alone. These systems also transcend traditional computer-controlled systems because of their scale, dependence on man-machine interaction, knowledge of social information and their rich communication infrastructure that is enabled by various kinds of networks including the Internet. The interaction and confluence of cyber, physical and social world will produce data in amounts difficult to understand and exploit. It is necessary for a holistic understanding of the behavior, vulnerabilities and guarantees of such systems and an integrated design methodology to achieve the expected properties.

CPSCom 2010 is next event of the successful International Conferences on Cyber, Physical and Social Computing (CPSCom), previously held as CyberSocialCom-09 (Hangzhou, China, November, 2009) and CPSC-09 (Brisbane, Australia, July, 2009). It will be an exciting international forum for researchers to exchange the information regarding advancements in the state of the art and practice of cyber, physical and social computing, as well as to identify the emerging research topics and define the future.

TOPICS OF INTEREST

- Fundamentals of cyber, physical and social computing
- Grand challenges for cyber, physical and social computing
- Features and requirements of cyber, physical and social computing
- Architecture and infrastructure for cyber physical systems
- Applications and experiences of cyber physical systems
- Internet of Things
- Web searching of the physical
- Modeling, data mining and analysis of social networks
- Design and innovative application of online social networking
- Ubiquitous sensing with socially produced input
- Mobile phones as social sensors
- Cyber/digital human and network life
- Design of large-scale cyber, physical and social systems
- Tools for analysis, verification, control, and optimization of hybrid systems
- Security, privacy, trust and safety of cyber, physical and social systems

IMPORTANT DATES

Workshop Proposal:	Ongoing as received
Submission Deadline:	Sep. 22, 2010
Authors Notification:	Oct. 22, 2010
Final Manuscript Due:	Nov. 07, 2010

ELECTRONIC SUBMISSION

Prepare your paper with free styles not more than 15 pages in PDF file. Submit your paper(s) at the CPSCom 2010 submission site: <http://cse.stfx.ca/~CPSCom2010/sub/>
Each submission should be regarded as an undertaking that, if the paper is accepted, at least one of the authors must attend the conference to present the work in order for the paper to be included in the IEEE CS Proceedings and Digital Library.

PAPER PUBLICATIONS

Accepted papers will be published in proceedings of the CPSCom 2010 conference by IEEE Computer Society (EI indexed). Selected bested papers will be recommended for publication in special issues of SCI-indexed journals: Journal of Supercomputing, Journal of Cluster Computing, International Journal of Communication Systems, and IEEE Intelligent Systems (pending).

WORKSHOP PROPOSAL

In conjunction with the CPSCom 2010 conference, several workshops will be held. Please submit a workshop proposal including call for papers, organizing committee, important dates, short bio of the organizers to the CPSCom 2010 workshop chairs. Proceedings of CPSCom 2010 workshops will be published by IEEE CS Press. The workshops with more than 15 papers will be granted with a free complimentary registration for the leading workshop organizer.