



# CALL FOR PAPERS:

## SMC'07 Special Sessions:

### *Role-Based Collaboration*

**2007 IEEE International Conference on Systems, Man, and Cybernetics, October 7-10, 2007, The Delta Centre-Ville, Montreal, Quebec, Canada**

<http://www.smc2007.org>



#### Special Sessions Theme:

Role-Based Collaboration is an emerging compartmentalizing methodology to facilitate an organizational structure, provide orderly system behaviour, and system security for both human and non-human entities that collaborate and coordinate their activities in a distributed intelligent system. The IEEE Systems, Man, and Cybernetics Society (SMCS) is hosting sessions on Role-Based Collaboration for the FIFTH time since its inaugural session in 2003 in Washington D.C. The sessions are becoming a regular event organized by the Technical Committee on Distributed Intelligent Systems at this conference.

[http://www.ieeesmc.org/technicalcommittess/tc\\_dis.html](http://www.ieeesmc.org/technicalcommittess/tc_dis.html)

The concept of role has been adapted from diverse fields including behavioural science, management, sociology, and psychology. Distributed system architectures have utilized roles to anthropomorphize software agents and systems so they can integrate and interact more seamlessly with their human counterparts. By providing role conceptualizations we can improve complex system understanding and management by providing the end user a modelled environment they are more accustomed, resembling, objects and activities they are exposed to daily like authority and organizational structures, responsibilities, functions and interactions between peers and management.

As in the human world where roles are used everyday, ambiguities and conflicts occur, thus necessitating clear role definitions and conflict resolution mechanisms to provide proper and efficient collaboration. These same issues arise in multi-agent and distributed intelligent systems, even more so when humans are included, and so require related effective software collaboration algorithms, techniques, and tools for the implementation of a well organized distributed intelligent system. The sessions will present techniques, methodologies, and architectures focusing on issues inherent to implementing Role-Based Collaboration for specific environments. Collaborative Systems mentioned here will include Computer-Supported Cooperative Work (CSCW), Groupware, GSS (Group Support Systems), CMC (Computer Mediated Communication), Social Computing Systems, Multi-Agent Systems, and Collaborative Games.

Solicited topics include, but are not limited to:

- Fundamental concepts and components in role-based collaboration
- Human-factors related to roles
- Role concepts and their applications in organizations and management
- Role management in collaborative systems
- Roles as modelling mechanisms in systems
- Roles as programming components and roles as services
- Internal properties of roles: specification, expression, and presentation
- External properties of roles: relationships among roles, objects, agents, and people
- Frameworks for role-based collaboration
- Frameworks for role-based systems
- Role-based coordination
- Role-based conflict resolution
- Role-based adaptive user interface design
- Role-based software development (Analysis, Architecture, Design, Programming and Testing)

- Role-based game design
- Role-based trusted systems
- Roles in social computing systems
- Roles in multi-agent systems
- Roles in emergency management systems
- Role-based programming: programming as a collaborative activity
- Evaluation of role-based collaborative systems
- Visualization of role-based collaboration
- Applications of role-based approaches

#### Important Dates:

**Jan. 25, 2007:** *Deadline for submission of abstracts*  
*Thursday, February 1, 2007: Deadline for submission of proposals for special sessions*  
*Thursday, March 1, 2007: Deadline for submission of papers (full-length papers only)*  
*Tuesday, May 15, 2007: Notification of acceptance*  
*Tuesday, July 3, 2007: Submission of final camera-ready papers*

#### Submission of Papers:

**Send your paper title, author information, and an abstract of 100 words by Jan. 25, 2007 to [haibinz@nipissingu.ca](mailto:haibinz@nipissingu.ca).** After receiving the confirmation (Possibly, February 15, 2006), authors should upload their papers to the paper submission system by specifying the special session by March 1, 2007.

#### Review Process:

Paper submission system provides a sub-review system for each session. The organizer and reviewers of this special session handle the review process.

#### Organizers:

##### **Haibin Zhu**

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#### Proposed Reviewers:

Kenneth Astley	Loughborough University, UK
Giacomo Cabri	Università di Modena e Reggio Emilia, Italy
James O. Coplien	University of Manchester, UK
Keith Harrison-Broninski	Role Modellers Ltd, UK
Ning Gu	Fudan University, China
Ming Hou	Defense Research and Development Canada, Canada
Stephan Herrmann	Technical University Berlin, Germany
John Murdoch	University of York, UK
Murray Turoff	New Jersey Institute of Technology, USA
Yan Xiao	University of Maryland, USA
Yu Zhang	Trinity University, USA
MengChu Zhou	New Jersey Institute of Technology, USA