

Call for Papers

IEICE/IEEE Joint Special Section on Autonomous Decentralized Systems Theories and Application Deployments

The IEICE Transactions on Communications and Transactions on Information and Systems announce a forthcoming IEICE/IEEE Joint Special Section on "Autonomous Decentralized Systems Theories and Application Deployments" to be published in **September 2008**.

The Autonomous Decentralized Systems (ADS), born in Japan 30 years ago, have technologically evolved in communication networks, information systems, and control systems. It has been applied in many actual systems, and it has progressed in standardization activities. IEICE and IEEE published joint Special Sections on "Autonomous Decentralized Systems" in May 2000, October 2001 and December 2005, cooperating with the International Symposium on Autonomous Decentralized Systems (ISADS). However, after that, ADS technology has been making drastic improvement, and innovative new research is being reported successively.

Recently, assurance systems are widely noticed as new system technology. Assurance system yields synergistic effects by cooperation of heterogeneous systems, which satisfy heterogeneity of requirements and adaptability to change of circumstances. Research meeting on Assurance System has been started in June 2000 under the Technical Group on Dependable Computing. In the United States, IEEE, DARPA, industries and universities established High-Assurance Systems Engineering Symposium (HASE). In July 2002 some members from Technical Group on Information Networks and Technical Group on Dependable Computing founded the International Workshop on Assurance in Distributed Systems and Networks (ADSN). The first ADSN was held in July 2002, and recently, the 6th ADSN 2006 was held in March 2006. In addition, the 8th ISADS 2007, jointly with FTDCS (Future Trends of Distributed Computing System), was held at Sedona, Arizona St. in the US in March 2007. It is very difficult to realize Assurance Systems with conventional Fault Tolerance Technology and High Reliability Technology. Hence, ADS is expected to be promising as the core technology for Assurance Systems substituting conventional technologies.

The objective of this Special Section is to discuss new technologies in the field of Autonomous Decentralized System through papers. The Special Section solicits paper submissions not only from people who presented new technologies in the International Symposium on Autonomous Decentralized Systems (ISADS 2007) in March 2007 but also from people who are interested in this field.

NOTE: The same paper presented in ISADS 2007 cannot be accepted because IEEE owns the copyrights to all papers in the conference proceedings. If it was originally appeared in ISADS2007, the submitted paper has to be revised substantially. It must have a different title and contain new results opening up new vistas.

In this case, it is required to place a footnote indicating it clearly, for example, "This work is based on "(full paper title)", by (authors' names) which appeared in Proc. IEEE International Symposium on Autonomous Decentralized Systems (ISADS 2007), Sedona, USA, March 2007, ©2007 IEEE."

1. Interesting topics

- Autonomous decentralized systems / Autonomous decentralized control;
- Information service system architecture;
- Mobile ad hoc networks / Sensor networks / P2P;
- Intelligent network / The Internet / Ubiquitous network;
- Heterogeneous distributed information / control systems;
- Mobile agents / computer-supported cooperative works;
- Distributed software development and maintenance;
- Fault tolerance, on-line expansion and on-line maintenance;
- Object management architecture / design pattern / application framework;
- Novel applications: electronic commerce, production systems, supply chain management, intelligent transport systems, traffic and transportation control, aerospace systems, logistics systems, medical systems, electronic government, etc.

2. Papers submission and process

The submitted papers will be reviewed by referees according to the ordinary rules of the Editorial Committee. Manuscript should be prepared according to the guideline in the "Information for Authors". The latest version is available at the web site, http://www.ieice.org/eng/shiori/mokuji_cs.html. The length of the paper should be within 8 printed pages for a PAPER and 2 for a LETTER in principle. The term for revising the manuscript after acknowledgement of conditional acceptance for this special section could be shorter than that for other issues (60 days) because of the tight review schedule. In this special section, electronic submission is adopted. Prospective authors are requested to follow carefully the submission process described below.

1. Submit papers using the IEICE Web site https://review.ieice.org/regist_e.aspx. Authors should choose the [Special-EB] or [Special-ED] Autonomous Decentralized Systems Theories and Application Deployments as a "Type of Issue (section) / Category of Transactions" on the online screen.

2. "Copyright Transfer and Page Charge Agreement" and "Confirmation Sheet of Manuscript Registration" must be sent by postal mail to the following address (the secretary of this section). Please mark "IEICE/IEEE Joint Special Section on Autonomous Decentralized Systems Theories and Application Deployments" on the envelope.

* Each accepted paper will be carried on one of Transactions on Communications or Transactions on Information and Systems. The title, authors, and abstract will be carried on the other transaction. Authors select the transaction that carries the paper. Editorial committee, however, may change it.

3. Submission Deadline **December 25, 2007**

4. Mailing and/or inquiry

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5. Special Section Editorial Committee

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* Please note that if accepted, all authors, including authors of invited paper, are requested to pay for the page charges covering partial cost of publications. Authors will receive 50 copies of reprints.

* At least one of the authors must be an IEICE member when the manuscript is submitted for review. Invited papers are an exception.