

——Special Section on Autonomous Decentralized Systems Technologies and
Approaches Innovation through Structure Change of Society and Life——

The IEICE Transactions on Communications announces a forthcoming section on “Autonomous Decentralized Systems Technologies and Approaches Innovation through Structure Change of Society and Life” to be published in August 2018.

The Autonomous Decentralized Systems (ADS), born in Japan 40 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, Oct. 2001, Dec. 2005, Sep. 2008, Nov. 2011 and Apr. 2016 cooperating with the International Symposium on Autonomous Decentralized Systems (ISADS). ADS technology has been making tangible improvement, and innovative new research is being reported successively. In particular, it is expected that ADS technology is applied to applications to promote transformation of social infrastructures, including the smart grid, environment management, resilience of system, Internet of Things, autonomous car and train, communication among the mobiles.

The objective of this Special Section is to discuss new technologies and approaches in the extended field of Autonomous Decentralized System through papers. The Special Section solicits novel research results from ADS and its related fields including the extended results of what is presented in the International Symposium on Autonomous Decentralized Systems (ISADS 2017) in March 2017.

NOTE : The same paper presented in ISADS 2017 cannot be accepted because IEEE owns the copyrights to all papers in the conference proceedings. If it was originally appeared in ISADS2017, 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 title)”, by (authors’ names) which appeared in Proc. IEEE International Symposium on Autonomous Decentralized Systems (ISADS 2017), Bangkok, Thailand, March 2017, ©2017 IEEE.”

1. Scope

This special section aims to identify the following topics for the autonomous decentralized system technology

- Ad-hoc networks and sensor networks
- Advanced network infrastructures and internetworking
- Mobile agent / computer-supported cooperative works
- Network and system security and safety
- Cloud computing and big data analysis
- Assurance, fault tolerance, on-line expansion, on-line-maintenance, and resilience
- Autonomous and decentralized services, including service architecture, protocols, and collaboration
- Distributed and collaborative development, test and maintenance, and development infrastructure of high-quality software systems, cloud computing, and service-oriented architecture
- Modeling and simulation of autonomous services and service-oriented application composition
- Novel applications, including e-business, e-commerce and e-government ; telecommunications ; information service systems ; manufacturing systems ; real-time event management ; office automation ; traffic and transportation control ; supply chains ; environmental/emergency protection ; networked health and medical systems ; intelligent home control ; embedded systems for automotive and avionics applications
- Service-oriented architecture, design patterns, and application frameworks
- Technologies and applications to promote transformation of social infrastructures, including the smart grid, environment management, resilience of system, Internet of Things, autonomous car and train, communication among the mobiles
- Internet of Things and Cyber-Physical Systems
- Heterogeneous distributed information/control systems
- Model driven development
- Web services and Web-based application composition

2. Submission Instructions

The standard number of pages is 8. The page charges are considerably higher for extra pages. Manuscripts 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 term for revising the manuscript after acknowledgement of conditional acceptance for this special section could be shorter than that for regular issues (60 days) because of the tight review schedule.

This special section will accept papers only by electronic submission. Submit a manuscript and electronic source files (LaTeX/Word files, figures, authors' photos and biographies) via the IEICE Web site https://review.ieice.org/regist/regist_baseinfo_e.aspx by September 1, 2017 (JST). Authors should choose Autonomous Decentralized Systems Technologies and Approaches Innovation through Structure Change of Society and Life as a “Journal/Section” on the online screen. Do not choose [Regular EB].

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