CALLS FOR ARTICLES FOR COMPUTER

Computer seeks articles for an April 2008 special issue on data-intensive computing. Guest editors are Ian Gorton of the Pacific Northwest National Laboratory, Paul Greenfield of Australia’s Commonwealth Scientific and Industrial Research Organization, Alex Szalay of Johns Hopkins University, and Roy Williams of the California Institute of Technology.

The need to capture, store, and provide timely processing of ever-increasing data volumes exists in a diverse range of application domains. These include scientific computing, Internet-based social computing, Internet search, bioinformatics, enterprise applications, video surveillance, and cybersecurity.

Many existing technologies fail when data volumes reach multiterabyte and petabyte ranges, requiring new approaches to solving such data-intensive computing problems. Innovations in data-intensive computing comprise both processor hardware and system and application software that can scale to handle ballooning data volumes and simultaneously reduce the time needed to provide useful data analysis.

Computer’s special issue on data-intensive computing will bring together contributions from leading scientists that address current and future problems and describe promising solutions in data-intensive computing. The articles will represent the state of the art in research and development.

Computer invites papers that provide a perspective on all facets of data-intensive computing. Examples of suitable topics include scalable algorithms to search and process massive data sets; advances in high-performance computing platforms; high-performance, high-reliability, petascale distributed file systems and databases; and techniques for processing massive data volumes from sensor networks.

Also welcome are case studies of solutions to data-intensive computing problems as well as surveys of current and future problems in data-intensive application domains such as astronomy, social computing, biology, environmental sciences, and the intelligence community.

The deadline for papers is 15 October. Detailed author instructions are available at www.computer.org/portal/pages/computer/mc/author.html. Send inquiries to the guest editors at ian.gorton@pnl.gov, paul.greenfield@csiro.au, szalay@jhu.edu, or roy@cacr.caltech.edu.

Computer seeks articles for a July 2008 special issue on high-assurance service-oriented architectures. The guest editors are Jing Dong from the University of Texas at Dallas, Raymond Paul from the US Department of Defense, and Liang-Jie Zhang from IBM’s T.J. Watson Research Center.

Recent advances in services computing technology allow users to register, request, discover, and supply software services online. Such loosely coupled software services form a service-oriented architecture with the support of resources on a network. Service-oriented architectures have been applied in many mission-critical environments, including medical and healthcare systems, traffic-control applications, and defense systems. These systems are required to be highly reliable, secure, available, timely, fault-tolerant, and dependable. Recently, architects have faced new challenges in developing service-oriented systems with high-assurance requirements.

Computer invites papers that describe techniques, tools, or experiences related to the design, development, or assessment of practical high-assurance systems. The issue editors are particularly interested in submissions that address applications of service-oriented techniques. Examples of suitable topics include high-assurance service compositions; service specifications for security, reliability, dependability, availability, and QoS properties; service discoveries with high-assurance system requirements; and service security, trust, and privacy.

The deadline for papers is 14 December. Detailed author instructions are available at www.computer.org/portal/pages/computer/mc/author.html. Send inquiries to the guest editors at jdong@utdallas.edu, raymond.paul@osd.mil, or zhanglj@us.ibm.com.

CALLS FOR PAPERS


Submission Instructions

The Call and Calendar section lists conferences, symposia, and workshops that the IEEE Computer Society sponsors or cooperates in presenting. Visit www.computer.org/conferences for instructions on how to submit conference or call listings as well as a more complete listing of upcoming computer-related conferences.

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CAALENDAR

OCTOBER 2007


12-13 Oct: WRTC7 2007, 8th Workshop on RTL & High-Level Testing (with ATS), Beijing; http://wrtlt07.ict.ac.cn


15 Oct: MWS 2007, Middleware for Web Services Workshop (with EDOC), Annapolis, Md.; www.greenpea.net/mws


16-19 Oct: CIT 2007, IEEE 7th Int'l Conf. on Computer and Information Technology, Aizu, Japan; www.u-aizu.ac.jp/conference/cit07


28-31 Oct: ICDM 2007, 7th IEEE Int’l Conf. on Data Mining, Omaha, Neb.; www.cs.uvm.edu/~icdm


29-31 Oct: ICTAI 2007, 7th IEEE Int’l Conf. on Tools with Artificial Intelligence, Patras, Greece; http://ictai07.ceed.upatras.gr

29-31 Oct: SKG 2007, 3rd Int’l Conf. on Semantics, Knowledge, and Grid, Xi’an, China; www.culturegrid.net/SKG2007

NOVEMBER 2007


DECEMBER 2007


17-20 Dec: ICIT 2007, 10th Int’l Conf. on Information Technology, Rourkela, India; http://icit2007.home.comcast.net

JANUARY 2008

7-10 Jan: HICSS 2008, Hawai’i Int’l Conf. on System Sciences, Waikoloa, Hawai’i; www.hicss.hawaii.edu/hicss_41/apahome41.html

FEBRUARY 2008


MARCH 2008


APRIL 2008

7-12 Apr: ICDE 2008, 24th IEEE Int’l Conf. on Data Engineering, Cancun, Mexico; www.icde2008.org

14-15 Apr: RAW 2008, 15th Reconfigurable Architectures Workshop (with IPDPS), Miami; www.ece.lsu.edu/vaidy/raw


2007 IEEE International Symposium on Multimedia

ISM 2007 is an international forum where researchers come together to share recent advances in the state of the art and practice of multimedia computing.

Organizers have solicited submissions that identify emerging research topics and define the future of multimedia computing. Examples of possible topics include pervasive and interactive multimedia systems, visualization and virtual reality, and software development using multimedia techniques.

The technical program at ISM 2007 will consist of invited talks, paper presentations, and panel discussions.

The conference will take place in Taichung, Taiwan, 10-12 December. Visit http://ism2007.ncu.edu.tw for complete details on ISM 2007, including registration information as it becomes available.