

CALL FOR PAPERS

IEEE Transactions on Automation Science and Engineering

Twenty years ago, the field of Robotics was defined and galvanized by the creation of an IEEE Journal devoted to the topic. We now have the opportunity to do the same for the field of Automation. The IEEE voted in February 2003 to bifurcate the IEEE Transactions on Robotics and Automation, the top-cited archival publication on robotics. The renamed Transactions on Robotics will gain a sibling: the Transactions on Automation Science and Engineering.

T-ASE will publish foundational research on Automation: scientific methods and technologies that improve efficiency, productivity, quality, and reliability, specifically for methods, machines, and systems operating in structured environments over long periods, and the explicit structuring of environments. Its coverage will go beyond Automation's roots in mass production and include many new applications areas, such as Biotechnology, pharmaceutical, and health care; Home, service, and retail; Construction, transportation, and security; Manufacturing, maintenance, and supply chains; and Food handling and processing. Research includes topics related to robots and intelligent machines/systems in structured environments and the explicit structuring of environments, and topics at the Operational/Enterprise levels such as System Modeling, Analysis, Performance Evaluation; Planning, Scheduling, Coordination; Risk Management; and Supply Chain Management. T-ASE will integrate knowledge across disciplines and industries.

Details on IEEE's motivation, distinctions between Robotics and Automation, scope statements, and sample application areas are available at: <http://www.ieee.org/t-ase>. The first issue will appear in July 2004.

Paper Categories: T-ASE publishes both Regular and Short Papers and Communication Items. Regular papers describe new abstractions, algorithms, theory, methodologies, models, systems, or enabling technologies for Automation. Short papers usually describe a single result, experiment, or technique of general interest for which a short treatment is appropriate. Communications items are a separate class of short manuscripts that are subject to an expedited review process and substantially faster publication than regular or short papers. Appropriate items include (but are not limited to) rebuttals and/or counter examples of previously published papers, or preliminary results of significant current research of wide interest. Review papers are published periodically, and manuscripts of a tutorial or review nature are welcome. Papers describing specific current applications are encouraged, provided that the methods represent the best current practice, detailed characteristics and performance are included, and they are of general interest. Multipart papers will only be published if there is compelling rationale for a multipart treatment. All parts of such submissions must be accepted for any part to be published. In addition, T-ASE addresses a research community willing to integrate knowledge across disciplines and industries. For this purpose, each paper shall include a Note to Practitioners that summarizes how its results can be applied or how they might be extended to apply in practice.

Our Goals: It is our goal to establish T-ASE as the flagship and most cited journal devoted to Automation by publishing original, significant, and visionary papers describing theory and new applications. This will be achieved with a timely, thorough, and constructive review process.

Paper Submissions: We solicit submissions starting June 1, 2003. All manuscripts should include a cover page containing the title of the paper, paper type (Regular, Short, or Communication Items), full names and affiliations, complete postal and electronic addresses, phone and fax numbers, an abstract, and a list of keywords. The corresponding author should be clearly identified. Please submit the above electronically in PDF form, double column format, and in a single file via FTP to the INCOMING directory of site ieeetase.egr.uconn.edu, or email to ieeetase@engr.uconn.edu. Please then email ieeetase@engr.uconn.edu the name of the file. Submission procedures will be obtainable from the web site <http://www.ieee.org/t-ase>. If it is felt that the paper is beyond the scope or capability of T-ASE, the corresponding author will be notified within one week. All questions relating to paper submissions please send to Editor-in-Chief Peter Luh.

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