



# Call for Papers

IEEE

## IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING Special Issue on Nano-scale Automation and Assembly

Research activities in nano-scale automation, manipulation, and assembly are tremendously important because many physical laws characterizing nano-scale interactions differ from those familiar in macro and micro systems. The IEEE Transactions on Automation Science and Engineering (T-ASE) invites submissions for a Special Issue on *Nano-scale Automation and Assembly*. The theme is to present the problems encountered in nano manipulation/assembly/automation research and provide up-to-date solutions to some of these problems. The aim is to disseminate the state-of-the-art results that will eventually lead to automated assembly of nano-scale entities such as carbon nanotubes, nanowires, molecules, DNAs, and other man-made or biological nano devices. Engineered nano-scale “machines” with potential applications for nano assembly, e.g., NEMS, nanomotors, and bio-molecular motors, are also topics to be discussed in this Special Issue.

Specifically, the topics for contributions include, but are not limited to:

- **AFM/SPM based nano automation/manipulation/assembly**
- **DNA, protein, carbon nanotube, nanowire, and nanocube manipulation/ assembly**
- **Sensor-based nano automation/manipulation/assembly**
- **Calibration of nano automation/manipulation/assembly systems**
- **Automated nano manipulation/assembly strategies**
- **Novel nano automation/manipulation/assembly techniques**
- **Fabrication and characterization of molecular assemblies**
- **NEMS, Nanomotors, bio-molecular motors**

Of special interest are contributions that include results on the application of the methods or systems to real-world examples. Papers must contain high-quality original contributions and be prepared in accordance with the T-ASE standards, including a *Note to Practitioners*. Submitted papers must not have been previously published or be under consideration for publication elsewhere. All papers will be reviewed following the regular review procedure of the T-ASE. Please see <http://www.ieee.org/t-ase> for details.

**Paper Submission:** Please submit papers in double columns either in WORD or PDF format to <http://mc.manuscriptcentral.com/t-ase>. Instructions for authors are available on-line at the site. If you have difficulties, please contact Sonal Parikh ([s.parikh@ieee.org](mailto:s.parikh@ieee.org)) or Larry Perrone ([l.perrone@ieee.org](mailto:l.perrone@ieee.org)).

### Important Dates:

November	01, 2004	Final deadline for paper submission.
February	01, 2004	Completion of 1 <sup>st</sup> review process.
June	01, 2004	Completion of 2 <sup>nd</sup> review process.
July	01, 2005	Final manuscript due.
October	01, 2005	Publication.

For additional information, please contact one of the Guest Editors:

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