Call for Papers
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) or Larry Perrone (l.perrone@ieee.org).

Important Dates:

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<td>November</td>
<td>01, 2004</td>
<td>Final deadline for paper submission.</td>
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<tr>
<td>February</td>
<td>01, 2004</td>
<td>Completion of 1st review process.</td>
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<td>Completion of 2nd review process.</td>
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<td>Final manuscript due.</td>
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<td>October</td>
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