



# SIXTEENTH INTERNATIONAL CONFERENCE ON COGNITIVE AND NEURAL SYSTEMS

**May 30 – June 1, 2012**

Boston University  
677 Beacon Street  
Boston, Massachusetts 02215 USA  
<http://cns.bu.edu/cns-meeting/conference.html>

Sponsored by the Boston University  
Center for Adaptive Systems (<http://www.cns.bu.edu/about/cas.html>),  
Center for Computational Neuroscience and Neural Technology (CompNet),  
and  
Center of Excellence for Learning in Education, Science,  
and Technology (CELEST) (<http://celest.bu.edu>)  
with financial support from the National Science Foundation

This interdisciplinary conference is attended each year by approximately 300 people from 30 countries around the world. As in previous years, the conference will focus on solutions to the questions:

HOW DOES THE BRAIN CONTROL BEHAVIOR?

HOW CAN TECHNOLOGY EMULATE BIOLOGICAL INTELLIGENCE?

The conference is aimed at researchers and students of computational neuroscience, cognitive science, neural networks, neuromorphic engineering, and artificial intelligence. It includes invited lectures and contributed lectures and posters by experts on the biology and technology of how the brain and other intelligent systems adapt to a changing world. The conference is particularly interested in exploring how the brain and biologically-inspired algorithms and systems in engineering and technology can learn. Single-track oral and poster sessions enable all presented work to be highly visible. Three-hour poster sessions with no conflicting events will be held on two of the conference days. Posters will be up all day, and can also be viewed during breaks in the talk schedule.

## CALL FOR ABSTRACTS

### Session Topics:

- \* vision
- \* image understanding
- \* audition
- \* speech and language
- \* unsupervised learning
- \* supervised learning
- \* reinforcement and emotion
- \* sensory-motor control
- \* cognition, planning, and attention
- \* spatial mapping and navigation
- \* object recognition
- \* neural circuit models
- \* neural system models
- \* mathematics of neural systems
- \* robotics
- \* hybrid systems (fuzzy, evolutionary, digital)
- \* neuromorphic VLSI
- \* industrial applications
- \* other

Contributed abstracts must be received, in English, by January 31, 2012. Email notification of acceptance will be provided by February 29, 2012. A meeting registration fee must accompany each abstract. The fee will be refunded if the abstract is not accepted for presentation. Fees of accepted abstracts will be returned upon written request only until April 13, 2012.

Abstracts must not exceed one 8.5"x11" page in length, with 1" margins on top, bottom, and both sides in a single-column format with a font of 10 points or larger. The title, authors, affiliations, surface, and email addresses should begin each abstract. A separate cover letter should include the abstract title; name and contact information for corresponding and presenting authors; requested preference for oral or poster presentation; and a first and second choice from the topics above, including whether it is biological (B) or technological (T) work [Example: first choice: vision (T); second choice: neural system models (B)].

Contributed talks will be 15 minutes long. Posters will be displayed for a full day. Overhead and computer projector facilities will be available for talks. Accepted abstracts will be printed in the conference proceedings volume. No extended paper will be required.

Abstracts should be submitted electronically as Word files to [cindy@bu.edu](mailto:cindy@bu.edu) using the phrase "16<sup>th</sup> ICCNS abstract submission" in the subject line or as paper hard copy (four copies of the abstract with one copy of the cover letter and the registration form) to Cynthia Bradford, Boston University, 677 Beacon Street, Boston MA 02215 USA. Fax submissions of the abstract will not be accepted.

**REGISTRATION INFORMATION:** Early registration is recommended using the registration form below. Student registrations must be accompanied by a letter of verification from a department chairperson or faculty/research advisor.