**Second International Conference on Biologically Inspired Cognitive Architectures**

Arlington, Virginia: November 5–6 (Saturday-Sunday), 2011

Second Annual Meeting of the BICA Society

Sponsored by the BICA Society

Co-located with the November 4–6 AAAI Fall Symposium Series, the AI Funding Seminar, and the Society for Neuroscience Annual Meeting (November 12-16, Washington DC)

---

**CALL FOR PAPERS**

The challenge of creating a real-life computational equivalent of the human mind calls for our joint efforts to better understand at a computational level how natural intelligent systems develop their cognitive and learning functions. In recent years, biologically inspired cognitive architectures (BICA) have emerged as a powerful new approach toward gaining this kind of understanding (here “biologically inspired” is understood broadly as “brain-mind inspired”). Still, despite impressive successes and growing interest in BICA, wide gaps separate different approaches from each other and from solutions found in biology, preventing us from solving the challenge.

The focus of this year BICA conference is on the integration of research in computational neuroscience, cognitive modeling, and human-level artificial intelligence, with a particular spotlight on emergent human-like learners: artifacts that can learn like humans, from humans and for human needs.

The impressive success of the previous forum, BICA 2010 (documented in papers and in video: [http://bicasociety.org/meetings/2010video/](http://bicasociety.org/meetings/2010video/)) tells us that we have a well-established venue and must continue this effort.

We are looking forward to seeing you in Arlington in November,

-- BICA 2011 Chairs
**Broader Scope and Topics**

We anticipate a showcase of physical and/or virtual artifacts demonstrating higher cognitive and learning abilities, including:
- metacognition, human-like self-regulated learning, bootstrapped and meta-learning,
- emotional and social intelligence, human-like behavior, virtual emotional characters
- human-like episodic and semantic memory functions,
- language acquisition and symbol grounding,
- human-like cognitive growth ability.

Equally encouraged are works addressing theoretical aspects of the BICA challenge, including:
- the ‘B’ in BICA and vital biological constraints for BICA informed by neuroscience,
- BICA models of robust biological learning mechanisms,
- general theory of bootstrapped and human-like learning,
- models and theories of higher emotions,
- human-complete tests and metrics for artificial intelligence,
- the critical mass for human-like cognitive growth and scalability metrics,
- the roadmap to solving the challenge.

**Registration**

- The registration page will open soon on the conference website. Our intent is to keep the tradition of much more affordable early registration fees compared to the co-located AAAI and SfN events. In addition, in this year we will give a substantial discount to BICA Society members (who also enjoy many other benefits). To apply for membership in the BICA Society, please visit [http://bicasociety.org/membership/join/](http://bicasociety.org/membership/join/).
- The registration fee will cover all conference activities (banquet will be paid separately), one copy of Proceedings, all coffee breaks, reception, and a lunch at Pinzimini on each day of the conference.

**Venue**


**Conference Format**

The format of BICA 2011 is one-track session with intermittent open-format panel discussions. Tentatively, each technical session will focus on a separate topic and will begin with a keynote followed by 4-5 regular talks. The timing of all talks and sessions depends on the number of participants. Our intent is to keep most talks short. We expect up to six panel discussions, about six technical sessions with 4-6 talks in each, and a poster review session. In addition, the conference will include a social agenda: a reception on November 5th, an organized BICA lunch on both days, and a banquet (details will become available later).
Publication Venue

As in the previous year, we have an agreement with IOS Press that the book of BICA 2011 Proceedings will be published as a volume in the IOS Press FAIA Series (referenced in major indices). The picture below gives you an idea of how the book will look like.

Notification of Intent

If you are interested in presenting and publishing your work as part of BICA 2011, then please notify both of the conference chairs ASAP by sending us a title and (optionally) an abstract via email simultaneously to kamillarj@gmail.com and alexei@bicasympodium.com. This information may be posted online. Alternatively, a notification can be made directly via EasyChair as an abstract and/or paper submission (see below); however, we need to know about your intent as soon as possible. Please, do not forget to include your name as it should appear in print, your affiliation, address, your contact information, and the tentative title of the paper.

Submission and Publication

We solicit submissions of the following categories:
- up-to-150 word abstracts,
- extended abstracts (1 or 2 pages),
- up-to-6-page research papers and
- up-to-5-page position papers.

You need to access EasyChair at https://www.easychair.org/conferences/?conf=bica2011 in order to make your submission. If you do not have an EasyChair account, you will need to create one following the online instructions.

All submissions will be subject to peer review. Notification of the decision will be sent to authors via email by the date specified below. Invited keynote submissions will not be rejected, but still need to be peer-reviewed.

Final camera-ready versions of accepted papers and abstracts will be due by the deadline specified below. All final submissions should be made through EasyChair following instructions in the acceptance letter. The registration fee must be paid by the time of the final submission.

Each registered participant will receive a copy of the book at the conference. A limited number of books that authors cannot take with them can be mailed on request after the conference. Additional book copies can be ordered in advance (not later than by the end of August).

Summary of Critical Dates

- April 1st: Tentative title submission (email)
- April 21st: Paper submission (EasyChair)
- May 15th: Author notification of decision
- June 15th: Early registration deadline
- June 15th: Final camera-ready submission
- September 5th: Online registration closes
- November 4th: Pre-conference workshop and Opening reception (at 7 pm)
- November 5-6: BICA 2011 Conference

Updated 2011-03-28