

# BIOLOGICALLY INSPIRED COGNITIVE ARCHITECTURES 2015

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http://liris.cnrs.fr/bica2015

#### **Table of Content**

BICA 2015: Sixth edition of BICA in Lyon	Sponsoring BICA 2015	2
Scientific Content 2 Who organizes BICA 2015? 3 Who attends BICA? 3 Key Information 4 Previous editions 4 Special symposium on Developmental Learning 4 Special event: IDEAL MOOC Meeting 4 Lyon special venue 5 Sponsorship opportunities 5 Sponsorship packages 5 Sup-event sponsoring opportunities 5 Sponsoring the IDEAL MOOC meeting 6 Sponsoring the Art and Play Special Event 6		
Who organizes BICA 2015?	Scientific Content	2
Who attends BICA?	Who organizes BICA 2015?	3
Previous editions	Who attends BICA?	3
Previous editions	Key Information	4
Special symposium on Developmental Learning	Previous editions	4
Special event: IDEAL MOOC Meeting		
Lyon special venue		
Sponsorship opportunities		
Sponsorship packages	Sponsorship opportunities	5
Sup-event sponsoring opportunities		
Sponsoring the IDEAL MOOC meeting6 Sponsoring the Art and Play Special Event6		
Sponsoring the Art and Play Special Event6	Sponsoring the IDEAL MOOC meeting	6
	Contacts	

# **Sponsoring BICA 2015**

Sponsoring BICA 2015 is a powerful way to advertise your company's commitment to research and innovation in the domain of artificial intelligence and cognitive science. This advertisement will particularly target BICA's international audience of scientists, young researchers and entrepreneurs, and professionals in the domains covering BICA.

The name of your company and its expertise will be displayed on many supports (website, posters, brochures, proceedings, ect.), before, during, and after the conference. Not only your company will contribute to research and education, but it will also achieve tangible results in terms of promoting its activity, for example, with the objective of targeting new markets or recruiting new collaborators.

# **BICA 2015: Sixth edition of BICA in Lyon**

The International Conference on Biologically Inspired Cognitive Architecture is held every year. Lyon was selected to host the sixth edition.

# Scientific Content

Biologically Inspired Cognitive Architectures (BICAs) are computational frameworks for building intelligent agents that are inspired by biological intelligence. These agents serve both as theoretical models (e.g., in cognitive science, neuroscience, economics and social sciences), and as intelligent controllers for autonomous systems (robots, game characters, smart human/machine interfaces, health applications, etc.).

Biological intelligent systems (animals, including humans) have many qualities that are often lacking in artificially designed systems; their purpose goes beyond interacting

with a closed environment or solving predefined logical problems. At a time when our understanding of natural intelligence is exploding, thanks to modern brain imaging, ethological studies, and the development of cognitive models mapping brain structures with functions, our ability to learn lessons from nature and to build biologically inspired intelligent systems has never been greater. At the same time, the growth in computer science and technology has unleashed enough design creativity and computational power to generate an explosion of applications in multiple domains.

Research in Biologically Inspired Cognitive Architectures contributes to the development of these applications by addressing the many questions that arise when trying to replicate natural intelligence, specifically, the complexity of higher cognitive abilities of the human mind, in an artificial system (the BICA Challenge). These questions are trans-disciplinary in nature and promise to yield multi-directional flow of understanding between all the disciplines involved.

## Who organizes BICA 2015?

The University Claude Bernard Lyon 1 (UCBL) organizes BICA 2015 in coordination with the BICA Society. The organizational structure involves:

- Core Organizing Committee:
  - Amélie Cordier, UCBL, General Chair.
  - Olivier Georgeon, UCBL, Program Chair.
  - Salima Hassas (UCBL), Organizing committee member.
  - Laetitia Matignon (UCBL), Organizing committee member.
  - Frederic Armetta (UCBL), Organizing committee member.
- An international scientific committee
  - Alexei Samsonovich (GMU), Program Co-chair.
  - Antonio Chella, University of Palermo. Scientific committee member.
  - Christian Lebière, Carnegie Mellon University. Scientific committee member.
- A local administrative team from the CNRS and UCBL.

#### Who attends BICA?

More than 300 international scientists are expected to participate to the conference. These scientists are specialists of the fields covered by BICA: artificial intelligence, neuroscience, cognitive science, cognitive modeling, computer science, and other related fields. The variety of these fields guaranties interdisciplinary cross-fertilization, which fuels innovation and creativity.

Students and young graduates are also well represented in the conference. As a sponsor, your company will display a high-technological profile to these participants, and position itself as a desirable potential employer. These students have strong background in computer science and cognitive science, and a broader vision than their colleagues of

other domains of computer science because of their trans-disciplinary interest and curriculum.

# **Key Information**

Conference attendees: more than 300 (based on the last year turnout).

Keynote and invited speakers: Luc Steels, Pierre-Yves Oudeyer, Kevin O'Regan, Peter

Gärdenfors. https://liris.cnrs.fr/bica2015/wiki/doku.php/keynotes

Submitted articles: 150. Oral presentations: 90. Special workshops: 4.

BICA2015 web site: <a href="http://liris.cnrs.fr/bica2015/">http://liris.cnrs.fr/bica2015/</a> BICA Society website: <a href="http://bicasociety.org/">http://bicasociety.org/</a>

#### **Previous editions**

Year	Location	Organization, Local chair	
2014	Boston, Massachusetts, USA	Massachusetts Institute of Technology (MIT)	
		Paul Robertson (MIT).	
2013	Kiev, Ukraine.	Alexei Samsonovich (George Mason	
		University)	
2012	Palermo, Italy.	Universita Degli Study di Palermo (UNIPA)	
		Antonio Chella (UNIPA)	
2011	Arlington, Virginia, USA	George Mason University (GMU)	
		Alexei Samsonovich (GMU)	
2010	Arlington, Virginia, USA	George Mason University (GMU)	
		Alexei Samsonovich (GMU)	

#### Special symposium on Developmental Learning

BICA 2015 will shed a special focus on a Developmental approach to Artificial Intelligence by hosting a special symposium on developmental learning. This topic covers questions in fundamental cognitive science (e.g., how can intelligence develop from within its own activity?), ethics (e.g., to what ends does intelligence develop?), and technical issues (e.g., how to implement robots capable of learning like infants?). These questions have direct middle-term applications in the design of systems that must learn autonomously through their interactions with an open and un-modeled environment and must be able to change their goals depending on the circumstances (robots, drones, virtual actors, etc.).

#### Special event: IDEAL MOOC Meeting

In 2014, our team at UCBL organized a MOOC on the topic of developmental learning, called IDEAL MOOC (Implementation of DEvelopmentAl Learning Massive Open Online Course). This MOOC has gathered more than 900 participants from 78 countries. It has

since been transformed into a PERMAMOOC (permanent MOOC), and it keeps attracting new visitors. (<a href="http://liris.cnrs.fr/ideal/mooc/">http://liris.cnrs.fr/ideal/mooc/</a>.)

We are organizing a meeting of the participants of the MOOC in periphery of the BICA conference.

# Lyon special venue

With its historic center registered to the UNESCO world's heritage, Lyon is a delightful place for work and pleasure. France's second city stands at a central point, just two hours of high-speed train south of Paris, two hours driving west of the Alps, and two hours driving north of the French Riviera.

Lyon offers an exceptional quality of life, "l'Art de vivre", with many pedestrian streets and beautiful walkways on the Rhone and Saone riverbanks. It has efficient public transports and a pioneering public bicycle system.

Lyon is considered France's gastronomic capital. It organizes many international events, ranging from a renowned music festival in the gallo-roman amphitheater to the "Lumière brothers" international film festival. You will also love the city's many museums: the new *musée des Confluences* (architecture), Museum of Modern Art, Museum of Fine Art, Gallo-Roman Museum at Fourvière, etc.).

Lyon is also the gastronomic capital of France. The city offers delicious cuisine for every budget from the city's "bouchon" bistros to the world famous chef Paul Bocuse.

# **Sponsorship opportunities**

BICA is a nonprofit annual conference funded solely by the registration fees and sponsors. One of its sponsors, BICA Society, is an international nonprofit organization based in the US that promotes and facilitates the transdisciplinary study of BICAs. Sponsors help us make the conference accessible to a wide community, and ensure high quality program featuring speakers at the top level of their fields. Moreover, you can make a decisive contribution by specifically sponsoring a special event that could only be held with your help and serve your goals.

This section presents the tangible benefits that your company receives with regard to sponsorship packages. An individually tailored package can also be drawn to meet specific needs of the company depending, for example, on its communication strategy. It is in the interest of BICA conference series and BICA society to insure the greatest possible benefit from sponsoring the conference.

# Sponsorship packages

We offer three standard sponsorship packages:

- 750 euro: *Bronze package*.
- From 750 to 2000 euro: Silver package.
- More than 2000 euro: Gold package.

Table 1: Benefits per sponsorship package.

Benefits	Bronze	Silver	Gold
	-750	+750	+2000
Logo on the website and proceedings	X	X	X
Logo on the website homepage and proceedings cover.		X	X
Bare stand			X
Poster exposition		X	X
Social event special sponsorship.			X*
Conference speaking opportunity (upon approval by the			**
conference chair)			
Official sponsorship of artistic event			**
Official sponsorship of IDEAL MOOC meeting event			**

<sup>\*</sup> The sponsorship of the social event offers a special visibility of your company during this event, which offers opportunity of informal contacts.

# **Sup-event sponsoring opportunities**

In addition to the packages in Table 1, we offer the opportunity to specifically sponsor any of the two special events.

#### Sponsoring the IDEAL MOOC meeting

Sponsoring the IDEAL MOOC meeting enables your company to communicate with the community of participants of the IDEAL MOOC. It is an international community of professional roboticists, software developers, researchers, and hobbyists with a strong interest in robotics, biologically inspired cognitive architectures and developmental artificial intelligence.

# Sponsoring the Art and Play Special Event

With you help, we propose to hold a special event open to all public to demonstrate artistic and playful applications of biologically inspired cognitive architectures. It is a unique opportunity to associate the image of your company to innovative applications of artificial cognition.

Finally, we invite you to go beyond the options listed above and to sponsor your own session(s), workshop(s) or special event(s) to be held as parts of BICA 2015, sharing with us the cost of hosting the conference. Here we encourage you to explore various

<sup>\*\*</sup> To be specified with the conference committee.

goals and aspects of the opportunity that we offer. To give an example, the hosting University would be happy to see that the conference may interest potential employers for their students.

### **Contacts**

For more information, please contact: Amélie Cordier (<u>Amelie.cordier@liris.cnrs.fr</u>) and Olivier Georgeon (<u>Olivier.georgeon@liris.cnrs.fr</u>).



Photos by Jacques Saadé