

4th IEEE Conference on Cognitive Infocommunications

Call for Papers

CogInfoCom 2013

Budapest, Hungary

December (~1)2-5, 2013



<http://coginfocom.hu/conference/CogInfoCom13>

UNDER DEVELOPMENT

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Sponsors: IEEE Hungary Section, IEEE Joint Chapter of IES and RAS, Hungary

Scientific co-sponsor: Széchenyi István University, Hungary

In technical cooperation with: TÁMOP – FIRST Project, Visionair Project, "Smarter Transport" – IT for co-operative transport system, "Intuitive home" project, Research and development project of an intelligent train station infrastructure

Industrial co-sponsor: PPM AS, Norway, www.ppm.no

Scope

CogInfoCom is a new interdisciplinary field of science defined as follows: Cognitive infocommunications (CogInfoCom) investigates the link between the research areas of infocommunications and cognitive sciences, as well as the various engineering applications which have emerged as the synergic combination of these sciences. The primary goal of CogInfoCom is to provide a systematic view of how cognitive processes can co-evolve with infocommunications devices so that the capabilities of the human brain may not only be extended through these devices, irrespective of geographical distance, but may also interact with the capabilities of any artificially cognitive system. This merging and extension of cognitive capabilities is targeted towards engineering applications in which artificial and/or natural cognitive systems are enabled to work together more effectively.

For more information on CogInfoCom please visit its official home-site at www.coginfocom.hu.

Contributions are expected from the following areas

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|------------------------------------|--|---|
| - 3D visualization and interaction | - Cognitive science | - Media informatics |
| - Affective computing | - Ethology-inspired engineering | - Multimodal interaction |
| - Augmented cognition (AugCog) | - Etho-robotics | - Real and virtual avatars, Virtual life |
| - Body area network | - Future internet | - Sensory substitution & sensorimotor extension |
| - Brain-computer interface | - Interaction capabilities of CogInfoCom Systems (HCI, HMI, HRI, HUCI) | - Social networks |
| - Cognitive control | - iSpace research | - Teleoperation |
| - Cognitive informatics and media | - Interactive systems engineering | - Vehicle informatics |
| - Cognitive linguistics | | - Virtual reality technologies and scientific visualization |
| - Cognitive robotics | | |

Authors are encouraged to submit full papers describing original, previously unpublished, complete research, not currently under review by another conference or journal, addressing state-of-the-art research and developments. All papers will be reviewed and accepted papers will appear in the conference proceedings. Papers must be submitted electronically via EasyChair in IEEE format (double column A/4, 4-6 pages long).

Just like last year, publications of the 4th IEEE International Conference on Cognitive Infocommunications (CogInfoCom 2013) will be uploaded to the IEEE Xplore database.

Authors' Schedule First submission: **September 20, 2013** / Notification of first review results: **October 18, 2013**
Final submission: **November 08, 2013**

Journal Publications Authors of selected best papers of the conference shall be invited to publish their previously unpublished research results in special issues of *international journals*.

Track and Session Organizers Those who would like to propose a track or session (a set of oral or DEMO presentations) in order to introduce the new scientific results of their fields or large scale international projects are warmly welcome. Please kindly note that the minimum number of sessions is 3 per track and 1 session is of 4 publications.

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| Track I – | CogInfoCom aided engineering (Wei Deng Solvang, NUC) |
| Track II – | Vision capabilities of infocommunications networks (Zsolt Jankó, MTA SZTAKI) |
| Track III – | Cognitive capabilities of social networks (Gábor Vattay, ELTE) |
| Track IV – | Multimodal Communicative Signals: Behavioural and Algorithmic Issues - LangTERRA project (Anna Esposito, UNINA2/IIASS; Maria Koutsombogera, ILSP; Harris Papageorgiou, ILSP; Klára Vicsi, BME) |
| Track V – | Interactive man-machine communication through multiple human senses (Mihoko Niitsuma, CHUO; Trygve Thomassen, PPM AS) |
| Track VI – | Diversity of cognitive information and communication issues supported by visualization and interaction techniques (VISIONAIR Project) (Frédéric Noël, G-INP) |

Workshop *Cognitive Infocommunication for the Future Internet* (Gyula Sallai, FIRCC, BME and György Terdik, DE) including the following:

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|--------------------|--|
| Track VII – | Cognitive Aspects in the Future Internet Research, Services and Technology (FIRST project) (János Sztrikt, DE and György Terdik, DE) |
| Track VIII – | Chapters of the Future Internet Science and Engineering (Peter Bakonyi, BME and Gyula Sallai, FIRCC, BME) |
| Track IX – | Customizable content management for Future Internet applications (András Hajdu, DE) |
| Track X – | Speech and multimodal interactions (Helen Meng, CUHK; Nick Campbell, TCD; Géza Németh, BME TMIT) |
| Track XI – | Cognitive Mobile Applications and Services (Hassan Charaf, BME AUT) |
| Special session I | Multimodal Cognitive Stroke Therapy by Robots and by Haptic Actuators (COSMOSYS Project), (Gábor Stépán, BME MMT) |
| Special session II | Cognitive acausal representations |

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Technical Program Committee

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4th IEEE Conference on Cognitive Infocommunications

Call for Demonstration

~ A venue for science, future professionals and industry representatives to meet ~

The 4th IEEE CogInfoCom 2013 organizing committee invites proposals for demonstrations to be given at the conference.

The demonstrations provide a forum for researchers as well as industry participants to demonstrate working systems, applications, tools or showcases of basic technologies to the conference attendees. The goal of the demonstrations is to showcase a spectrum of applications ranging from research prototypes to pilot solutions and even products that use cognitive infocommunications technology and provide functionality in the context of cognitive learning and information technology. For submissions to this event, it is very important to describe the demonstration setup, functionality and benefit to the viewer of the demonstration. Technical background discussion can be presented at the actual demonstration or can be submitted as an industry track or regular conference paper; the focus of the demonstrations themselves should be to show the functionality to viewers. Demonstrations are expected to be highly interactive.

Topics for demonstrations include but are not limited to:

3D visualization and interaction	Cognitive science	Media Informatics
Affective computing	Ethology-inspired engineering	Multimodal interaction
Augmented cognition (AugCog)	Etho-robotics	Real and virtual avatars
Body area network	Future internet	Sensory substitution & sensorimotor extension
Brain-computer interface	Human-computer and Human-robot interaction, interaction capabilities of CogInfoCom systems	Social networks
Cognitive control	iSpace research	Teleoperation
Cognitive informatics and media	Interactive systems engineering	Vehicle informatics
Cognitive linguistics		Virtual Reality Technologies and Scientific Visualization
Cognitive robotics		

Demonstrations ideally showcase a system or application that clearly underlines the benefit of using and deploying cognitive infocommunications technologies. In addition, tools and basic technologies that implement or use cognitive infocommunications or cognitive infocommunications approaches are invited for demonstration. *Any devices or hardware/software developments which build on, take into account and/or enable interaction between various levels of natural/artificial cognitive capabilities are welcome!*

Demonstration Setup

The demonstrations are planned to be a single event during the conference, open to all conference attendees, with the goal of open and constructive discussions. One table will be provided with power as well as Internet connection. Posters can be displayed behind or next to the tables (depending on the space) either on pin boards or the wall. Demonstrators must bring any additional equipment they require as no equipment will be provided by the conference.

Demonstration Submissions

Authors submitting papers to the demonstrations must submit a 1/2-page paper that clearly outlines the demonstration that will be set up and the functionality a visitor to the demonstration can observe. The technical background, such as the architecture or algorithms, should not be described in detail; such a description would best be submitted to the industry track or main conference paper track. Including links to supporting material, e.g. a video on the web or a web-based demo itself, is highly encouraged. All submissions must follow the specific submission guidelines on the COGINFOCOM2013 web page. The accepted demonstration submissions will be included in the conference proceedings.

Please kindly indicate the intention of your DEMO participation via e-mail at your earliest convenience in order to help the organization of the event. Please include "[COGINFOCOM2013-DEMO]" in the subject of your emails and send them to ieee.coginfocom2013@sztaki.mta.hu.

Important Dates

Demo Submission: 15 October, 2013
Notification: 18 October, 2013
Final submission: 08 November, 2013

Conference: 2-5th December, 2013 in Budapest, Hungary

Submissions

Researchers and practitioners are invited to submit demo proposals to the demo co-chairs: to be decided

Note: Every demo paper accepted for publication in the Proceedings of 4th IEEE Intl' CogInfoCom 2013 MUST be presented during the conference.

