

## INVITED SESSION SUMMARY

**Title of Session:**

Anthropic-Oriented Computing (AOC)

**Name, Title and Affiliation of Chair:**

Manuel Mazzara, Innopolis University, Russia  
Max Talanov, Kazan Federal University and Innopolis University, Russia  
Salvatore Distefano, University of Messina, Italy/Kazan Federal University, Russia  
Jordi Vallverdú, Universitat Autònoma de Barcelona, Spain  
Robert Lowe, University of Skövde/University of Gothenburg, Sweden  
Joseph Alexander Brown, Innopolis University, Russia

**Details of Session (including aim and scope):**

This invited session aims at attracting international researchers in the interdisciplinary field of Anthropic-Oriented Computing (AOC), which lies at the intersection among sociology, neuroscience, philosophy, anthropology, psychology and computer science. Current systems are indeed melting pots of interacting parts mixing economical, philosophical and socio-technical issues and interests, thus calling for adequate management approaches of the ecosystem as a whole.

Trans-/inter-disciplinary methodologies are therefore required for dealing with such issues. In this invited session we specifically focus on the anthropic aspects of this complex scenario projecting them into computer science. The main focus is on humans, covering a broad spectrum from inward (emotions and affective computing) to outward (communities and crowds) aspects. On one hand, the focus is on AI through the neuro-physiological perspective. On the other hand, collective intelligence springing from human collaboration and interaction is at stake, taking into account the cultural divergences that flavour the bounded rational processes with local or situated cognitive perspectives.

The intent is to raise interest in cross-disciplinary research with potential practical outcomes in the following (but not restricted to) fields:

- Affective cognitive architectures
- Crowdcasting
- Crowdsourcing
- Crowdsensing
- Emotional computer interface
- Situated and embodied cognition
- Swarm cognition (swarm intelligence + distributed cognition = swarm cognition)
- Multi agent neural networks
- Realistic/Spiking neural networks
- Neuro-biologically inspired systems for AI
- Neuro-biologically inspired systems for Robotics
- Philosophical aspects of Artificial consciousness
- Minimal cognitive models and their scalability
- Computational Psychological and Neuroscientific aspects of Affective computing
- Computational Psychological and Neuroscientific aspects of Robotics
- Decision making and Artificial Consciousness
- Volunteer computing
- Social computing
- Collective intelligence
- Multi-agent system approaches to crowd modelling

- Agent-based crowd simulation
- Crowd agents
- Agent crowd map

**Main Contributing Researchers / Research Centres (tentative, if known at this stage):**

- Politecnico di Milano, Italy
- Innopolis University, Russia
- ETH, Switzerland
- Kazan Federal University, Russia
- Universitat Autònoma de Barcelona, Spain
- DTU Copenhagen, Denmark
- Università di Messina, Italy
- Linnaeus University, Sweden
- University of Skövde, Sweden
- University of Gothenburg, Sweden
- Chair of the Philosophy of Information in Oxford, UK
- Centre of Behavioural and Cognitive Sciences, Allahabad, India
- National Institute of Advanced Studies, Bangalore, India.
- Indian Institute of Science, Bangalore, India
- Paluno Institute, Germany
- National Technical University Athens, Greece

**Website URL of Call for Papers (if any):**

<http://aoc.deib.polimi.it/>

**Email & Contact Details:**

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