

Call for papers

Cognitive Computing and Networking, ICNC 2013

San Diego, Jan. 28-31, 2013
<http://www.conf-icnc.org/2013>

Symposium Co-chairs

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Scope

Cognitive computing and networking are two closely related emerging technologies. Cognitive computing concerns with developing computing systems modeled after the human cognitive systems and to teach computers to think and reasoning like a human mind. Cognitive networking refers to developing networks with a cognitive process that can perceive current network conditions, plan, decide, act on those conditions, learn from the consequences of its actions, all while following end-to-end goals. The Cognitive Computing and Networking Symposium will focus on topics related to all aspects of this important problem area. Of special interest are papers reporting on novel and practical solutions to cognitive computing, cognitive algorithms and network design, field tests and measurements, and emerging applications. To ensure complete coverage of the advances in this broad area for current and future systems, the Cognitive Computing and Networking Symposium solicits original contributions in, but not limited to, the following topical areas:

- Adaptive antennas and cognitive RF front-ends
- Analytical models and fundamental limits for cognitive networking
- Applications in public safety, vehicular networks, battlefield networks, and others
- Architectures for cognitive networks
- Artificial intelligence
- Auction, pricing, and other economic aspects and approaches for sharing spectrum
- Cognitive networking testbeds, simulation tools, and infrastructures
- Cognitive radio and software defined radio
- Computer vision
- Cooperative communications and networking in cognitive networks
- Cross-layer design and optimization of cognitive radio networks
- Dynamic spectrum access
- Fuzzy systems and neural networks
- Game theoretic approach to cognitive networking
- Intelligent perception and understanding
- Interference modeling and mitigation
- MAC and networking protocols for cognitive networks
- Machine learning
- Measurements and models for spectrum whitespace
- Multimedia communications over cognitive networks
- Natural computation
- Neuroscience
- Nonlinear system
- Pattern recognition
- Regulatory policy, enforcement, and standardization on sharing spectrum

- Spectrum sensing
- Statistical inference, learning, and cognition
- Secure cognitive networking

Submission Guidelines

Please follow the author instructions at <http://www.conf-icnc.org/2013/author.htm>

Direct paper submission weblink of this symposium can be found at <http://www.conf-icnc.org/2013/cfp.htm>

Short biography of co-chairs

Gang Hua

Gang Hua is an Associate Professor of Computer Science in Stevens Institute of Technology. He also holds an Academic Visiting Researcher position at IBM T. J. Watson Research Center. Before that, he was a Research Staff Member at IBM Research T. J. Watson Center from 2010 to 2011, a Senior Researcher at Nokia Research Center, Hollywood from 2009 to 2010, and a Scientist at Microsoft Live Labs Research from 2006 to 2009. He received the Ph.D. degree in Electrical and Computer Engineering from Northwestern University in 2006. His research interests include computer vision, pattern recognition, and machine learning, with particular focus on human centered visual computing and large scale visual data analytics. He has published over 60 peer reviewed papers in prestigious international conferences and journals. He is a Senior Member of the IEEE and a Member of the ACM. As of October, 2011, he holds 6 US patent and has 14 more patents pending.

Alireza Babaei

Alireza Babaei is currently a Postdoctoral Fellow at the Department of Electrical and Computer Engineering of Auburn University. He has served as a guest editor for IEEE Wireless Communications special issue in Dynamic Spectrum Management. He has contributed to the books: "The Communications Handbook," third ed., CRC Press; "Cognitive Radio and its Applications for Next Generation Cellular and Wireless Networks," Springer-Verlag; and "Cognitive Radio and Interference Management: Technology and Strategy," IGI Global. He received his Ph.D. degree in Electrical and Computer Engineering from George Mason University in 2009 where he also received an outstanding graduate student award. His research interests include modeling and performance evaluation of wireless networks, Information Theory, and cognitive radio communications and networks. He is a member of IEEE.

Haibin Ling

Short bio: Haibin Ling received the B.S. degree in mathematics and the MS degree in computer science from Peking University, China, in 1997 and 2000, respectively, and the PhD degree from the University of Maryland, College Park, in Computer Science in 2006. From 2000 to 2001, he was an assistant researcher in the Multi-Model User Interface Group at Microsoft Research Asia. From 2006 to 2007, he worked as a postdoctoral scientist at the University of California Los Angeles. After that, he joined Siemens Corporate Research as a research scientist. Since fall 2008, he has been an Assistant Professor at Temple University. Dr. Ling's research interests include computer vision, medical image analysis, human computer interaction, and machine learning. He received the Best Student Paper Award at the ACM Symposium on User Interface Software and Technology (UIST) in 2003.