

## **iCAST 2017 Special Session Proposal**

**Deadline: June 01, 2017**

Session Title:

### **Advanced Communication Technologies and their Applications to Intelligent Information Systems, Cognitive Radios and Sensor Networks (ACTAIIS)**

Session Chair with Contact Information:

Prof. Yung-Fa Huang, Chaoyang U. Tech., yfahuang@cyut.edu.tw

Session Organizers:

Prof. Yung-Fa Huang, Prof. Ching-Chuan Wei, Prof. Hsin-Ying Liang, Prof. Wen-Chung Tsai

#### **Aim:**

(describe in 1-2 paragraphs – 150 words – the aim of the session)

Advances in Communication Technologies and their applications to health care communications for intelligent information systems, cognitive radio network for dynamic and efficient spectrum sharing, and sensor networks have generated interest from both industry and academia. This session (ACTAIIS) will bring researchers and experts together to present and discuss the latest developments and technical solutions concerning various aspects of advances in communication technologies. This session seeks original unpublished papers focusing on theoretical analysis, emerging applications, novel system architecture construction and design, experimental studies, and social impacts of communications technologies.

#### **This special session will be focusing on (but not limited to) the following topics:**

- (enumerate a list of specific topics the SS would deal with)
- Network architectures and protocols
- Mobility management and topology control
- Performance modeling and analysis
- Medium access control and routing protocols
- Information aggregation and dissemination
- Cognitive radio enhanced vehicular communications,
- Applications, case studies, and real-world test beds
- Power aware and energy efficient design
- Remote sensing and monitoring (health care, space structure, environments, hazards etc.)
- Complexity analysis, self-organization/configuration, distributed co-ordination etc.
- Application of software defined network in advanced communication systems
- Cross-layer designs and architectures
- Self-organizing networks and autonomic communications
- Ultra-wideband technologies
- Beam-forming and MIMO for interference avoidance in the CR context

- Biological-inspired networking
- Adaptive wireless communication systems
- Spectrum sensing techniques, spectrum efficiency and soft spectrum usage
- Parameter estimation for adaptation of wireless communication systems
- Interference mitigation and awareness
- Spectrum-management regulation and policy making
- Femto-cells
- Standardizations such as IEEE 802.22, 802.19, 802.11n, 802.11p, etc

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**Paper List (at least 5 papers)**

Paper 1	Paper's Title	Title of paper
	Author(s)	Name, affiliation, email Name, affiliation, email .....
	Contact	Email of corresponding addressee
Paper 2	Paper's Title	Title of paper
	Author(s)	Name, affiliation, email Name, affiliation, email .....
	Contact	Email of corresponding addressee
Paper 3	Paper's Title	Title of paper
	Author(s)	Name, affiliation, email Name, affiliation, email .....
	Contact	Email of corresponding addressee
Paper 4	Paper's Title	Title of paper
	Author(s)	Name, affiliation, email Name, affiliation, email .....
	Contact	Email of corresponding addressee
Paper 5	Paper's Title	Title of paper
	Author(s)	Name, affiliation, email Name, affiliation, email .....
	Contact	Email of corresponding addressee