Call for Papers
Special Session: Intelligent Systems and Robotics

Outline:

Information explosion, exponential growth in technology and progression toward technological singularity has triggered the evolution of human society to a new era of man-machine society. An era where humans and machines work as co-partners; therefore, this combined intellect of men and machines will provide new means for discovery, problem solving and creativity. This will have impact on socio-economic structure and will transform businesses, industries to self-governing organizations. Large number of jobs will be taken by machines and new kind of jobs will be created, which will require new kind of innovation and skills. The key players of this man-machine society are the intelligent systems and cognitive robots, possessing certain level intellect, socio-cognitive abilities and self-awareness. These systems can be softbots or robots. These softbots should have capacity and capability to: handle business transactions, financial flows, transform product service system through fleet learning, establishing interactive customer relationship through deep insights and behaviorally oriented methodologies. Where these intelligent, self-aware socio-cognitive robots must be capable to carry out complex tasks in dynamic environments. Must be capable of performing physical interaction with the humans to carry out tasks in hand through collaboration, natural interaction, manipulation of objects in the environment. The challenge is to develop these systems with safe intelligence and teaching these systems the human values and ethics, so that this societal transformation may lead predictive enterprising and execution of work through a blended workforce of men and machines.

Topics: **Topics include but are not limited to:**

- Socio-cognitive Agents
- Machine Consciousness
- Integration of Robotics into the Home Ecosystem
- Robot Deception and Squirrel Behavior
- Bio-inspired Intelligence and Robotics
- Soft Tissue Robotics–The Next Generation
- Robotics as a Tool for Training and Assessment of Surgical Skill
- Socially Assistive Robotics for Personalized Education for Children
- Belief-Based Cognitive Robotics in Continuous Domains
- Swarm Intelligence
- Intelligent Agents and Multi-Agent Systems
- Learning Systems
- Brain-Machine Interface Systems
- Cloud Robotics
- Internet of Robots
- Self-aware Cyber-Physical System
- Machine Ethics

Organizer: Mr. Pir Amad Ali Shah,
University of South Asia, Lahore, Pakistan

Email: amad.ali@usa.edu.pk

Mr. Syed Tanweer Shah Bukhari,
University of South Asia, Lahore, Pakistan
Email: stsbukhari@gmail.com

Chairs: • Dr. Wajahat Mahmood Qazi,
COMSATS Institute of Information Technology
Email: wmqazi@ciitlahore.edu.pk

Dr. Yasar Ayaz, National University of Sciences and Technology, Islamabad, Pakistan
Email: yasar@smme.nust.edu.pk

Important Dates: **Full Paper Submission deadline: 1 June 2017**
Notification deadline: 31 July 2017
Camera-ready deadline: 31 August 2017

All presented papers will be published by Springer and made available through SpringerLink Digital Library, one of the world's largest scientific libraries, within LNICST.

Proceedings are submitted by Springer for inclusion to the leading indexing services:

ELSEVIER EI   THOMSON REUTERS   Scopus   crossref   Google Scholar   dblp