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## \*\*\* Call for Papers \*\*\*

### Special Issues: Socio-Cognitive Engineering (SCE)

#### **Special Issue Editor:**

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*Socio-Cognitive Engineering (SCE) Issues of the SCIENTIA IRANICA are multidisciplinary in aims and scope. We consider publication of original peer-reviewed articles and contributions to innovative ideas and concepts, new discoveries and improvements, as well as novel applications describing technically scientific and logical advances in the area of social and cognitive engineering and technologies.*

Socio-Cognitive Engineering (SCE) is a multidisciplinary area of research and a basis for human-centered design of technology-oriented systems to improve human knowledge functions, judgments and decision making, collaborations, and learning. It draws on the knowledge of prospective users and involves them in the design process. It goes beyond distinct users to examine the activity schemes of people and their interaction with technology, including their social interactions, styles and working strategies, and language/communication patterns, to form a combination of human knowledge and activity that can update system design. The SCE framework consists of two main areas: one being the action analysis to interpret how people work and interact with their current tools and technologies, and the other being the systems design to build and implement new interactive technologies. Socio-cognitive engineering has been progressive and verified through a series of projects to improve modern technology-based systems to support learning and knowledge functions. For instance, nowadays, Socio-Cognitive Robotics (SCR) is playing a major role in societies across the globe as an interdisciplinary study and application of robots that are able to teach, learn, and reason out how to behave in a complex world within the cognitive, cultural, linguistic, psychological, social, and therapeutic framework attached to their role.

These special issues aims at presenting state-of-the-art research on topics related to the latest applications, technologies, novel research results, and developments in the area of socio-cognitive engineering and technologies on all levels. From conceptual designs and developments to system integration, inspiring artistic designs, and educational and clinical applications along with a broad spectrum of social implications will be considered. They provide a platform for interested researchers to present their ideas, findings, and the latest developments in social and cognitive technologies covering relevant advances and their social impact on our society in arts, computing, clinical interventions, educational technologies, engineering, ethics, humanities, and philosophy. Potential topics include, but are not limited to:

- o Human-centered design and technology
- o Socio-cognitive system design: knowledge/organizational/software/task engineering
- o Emergent behaviors multi-robot and/or multi-machine systems
- o Socio-cognitive and intercultural engineering design
- o Haptic and virtual reality systems and applications
- o Human computer/robot/machine interaction (HCI/HRI/HMI)
- o Brain and cognitive sciences
- o Human factors and system integration
- o Emerging technology based education and instruction (i.e. CALL, MALL, RALL)
- o Creativity and innovation via interdisciplinary collaborations and team working
- o Emerging engineering designs for clinical/social interventions; novel concepts and practice
- o Social robots and social machines; concepts, theory, and applications
- o Engineering psychology and cognitive ergonomics
- o Cognitive language and computational linguistics

**Authors are requested to prepare and submit their full papers in accordance with the SCIENTIA IRANICA guidelines. Please NOTE that SCIENTIA IRANICA does not require publication charges. (<http://scientiairanica.sharif.edu/journal/authors.note>).**

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