



Computational Intelligence and Human-Computer Interactions for Industrial Applications

Theme: Extracting information from a massive amount of humans' natural behaviour and cognition patterns has allowed supporting the computational intelligence (CI), such as fuzzy systems, neural networks, and evolutionary computation, in many industrial fields, ranging from education to medicine. Human interacting with CI is gaining popularity in emerging industry, as the human feedback into the learning loop of the industrial computer can help to improve the performance faster. Recent advances in CI (including fuzzy systems, neural networks, and evolutionary computation) in computer industry, are giving momentum to human-in-the-loop approaches to enable complex industrial paradigms that operate in connection with human beings. This special issue aims to gather outstanding papers about integrating human informatics and their interacting applications using CI in various industrial fields. This will provide a snapshot of the latest advances in the contribution of industrial applications powered by computational intelligence and human-computer interactions.

Topics include, but are not limited to, the following research topics and technologies:

- 1- CI modelling and reasoning for the recognition of human cognitive processes.
- 2- CI decoding of brain activity patterns and human-computer/machine interactions.
- 3- CI redefining the way of computer vision in human-computer/machine interactions.
- 4- CI leading a revolution in the space of natural language processing.
- 5- CI navigating human-computer interactions in AR/VR environments.
- 6- CI approaches supporting human data analytics and neuro-informatics.
- 7- CI acquiring of human uncertainties and vulnerabilities.
- 8- Industrial applications of CI techniques in human-related datasets.

Manuscript Preparation and Submission

Follow the guidelines in "Information for Authors" in the IEEE-IES website: <http://www.ieee-ies.org/pubs/transactions-on-industrial-informatics>. Please submit your manuscript in electronic form through Manuscript Central web site: <https://mc.manuscriptcentral.com/tii>. On the submitting page #1 in popup menu of manuscript type, select: SS on **Computational Intelligence and Human-Computer Interactions for Industrial Applications**

Submissions to this Special Section must represent original material that has been neither submitted to, nor published in, any other journal. Regular manuscript length is 8 pages.

Note: The recommended papers for the section are subject to final approval by the Editor-in-Chief. Some papers may be published outside the special section, at the EIC discretion.

Timetable: **Deadline for manuscript submissions June 30, 2020**
Expected publication date (tentative) December, 2020

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