

Special Session Call for Papers on
Social and Biometric data for Applications in human machine interactions: Models and algorithms (SOBIOAPPS)
In Conjunction with the 7th IEEE Cyber Science and Technology Congress (CyberSciTech 2022)
September 12-15, 2022

Sponsored by

IEEE Systems, Man, and Cybernetics Society; EMPATHIC: <http://www.empathic-project.eu/>; **MENHIR:** <http://menhir-project.eu/>; **SIROBOTICS:** https://www.exprivia.it/en/show-info-event-full.php?id_event=7907; **ANDROIDS:** <https://www.psicologia.unicampania.it/android-project>,

The aim of this SPECIAL SESSION is to provide an overview of ideas and methods for developing autonomous systems capable to act as socially and emotionally believable assistive interfaces. To this aim, data gathered from behavioural and social experiments, biometrics measurements, and models of social and individual behaviours are considered as signals to be processed and interpreted through new proposed algorithms and theoretical frameworks. These interdisciplinary facets found relevant applications in ICT interfaces for monitoring the health and affective states of their users, gather their psychological feelings and behavioural patterns, and support them through suitably designed interventions.

The call is open to contributors of **diverse disciplinary backgrounds** such as psychologists, health scientists, computer scientists, cognitive scientists, philosophers, and more.

TOPICS: Topics include but are not limited to:

- Analysis and identification of affective wellbeing and emotional states
- Case studies for detection of health status and personal health informatics
- Supervised and unsupervised algorithms for psychological and health status identification
- Application Oriented Redefinition of "Emotions"
- Computational models of emotions and Electronic health records (EHR) data mining
- Emotional speech algorithms and Facial affect detection
- Physiological monitoring systems
- Computational Architectures for Affective Systems
- Personalized Decision Support Systems for healthcare and wellbeing
- AI for Precision Medicine and Examples of precision medicine in human disease treatment and prevention
- Human and/or machine encoding and decoding of behavioral patterns
- Unimodal and Multi-modal analysis of behaviors (speech, facial expressions, gesture)
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IMPORTANT DATES

- Paper Submission Dues: **June 1, 2022**
- Notification of acceptance: **July 1, 2022**
- Camera-ready submission: **July 15, 2022**
- Conference Dates: **Sept 12-15, 2022**

SUBMISSION, PUBLICATION AND PAGE LIMITATIONS

Publications are in the IEEE CyberSciTech 2022 proceedings: <http://cyber-science.org/2022/cyberscitech/papersubmissions/>
Submissions are through the Easy Chair system: <https://easychair.org/conferences/?conf=dascpicomcbdcomcyber>

SPECIAL SESSION FORMAT:

The SPECIAL SESSION format considers 20 minutes presentations including questions. A 1 hour round table is foreseen on: "The dependability of voice in interactional exchanges". A special issue is foreseen on a high impact journal (To be Announced). Attendance at SOBIOAPPS 2022 will be covered under the general registration fee for CyberSciTech 2022

SPECIAL SESSION CHAIRS

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The length of the SPECIAL SESSION will range from 2 to 6 hours depending on the number of accepted contributions.