Call for Contributions

Submission:
1. Inform the Chairs about the Title of your Contribution
2. Submission URL:
https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=HEALTHINFO+2025+Special
Please select Track Preference as **WAFFLES**

Special track
WAFFLES: Wearables for Affective Health, Fatigue, Fragmented Sleep, Lifestyle Monitoring, Emotions, and Sleep Disorders

Chairs

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along with

HEALTHINFO 2025, **The Tenth International Conference on Informatics and Assistive Technologies for Health-Care, Medical Support and Wellbeing**
October 26 - 30, 2025 - Barcelona, Spain
https://www.iaria.org/conferences2025/HEALTHINFO25.html

Sleep is a cornerstone of human health, tightly intertwined with emotional well-being, cognitive functioning, and physical recovery. Wearable technologies have emerged as powerful tools to non-invasively monitor sleep patterns, physiological signals, and behavioural correlates over time.

WAFFLES track focuses on how wearable devices, data analytics, and health informatics can be used to monitor and interpret sleep patterns, affective sleep disturbances, stress-related sleep disruption, fatigue, and daytime sleepiness.

We invite high-quality original submissions that explore the development, validation, and deployment of wearable-based systems (or other integrated platforms) for sleep and sleep-related behavioural health. WAFFLES encourages interdisciplinary work at the intersection of biomedical signal processing, digital mental health, clinical informatics, and AI-driven behaviour modelling.

Who Should Submit
Researchers and developers working in sleep science, mental health informatics, wearable computing, digital psychiatry, behavioural science, biomedical signal processing, and AI for healthcare

Goals of the WAFFLES Track
The WAFFLES track aims to foster interdisciplinary discussion and showcase emerging research on how wearable technologies can enable early detection, longitudinal monitoring, and personalized interventions for sleep and affective health challenges. The track also seeks to bridge gaps between

computational methods, clinical practice, and real-world applications, particularly in understanding the complex relationship between sleep, emotion, stress, and daytime functioning.

Subtopics for contributions include, but are not limited to:

● Detection and tracking of affective sleep disorders using wearables
● Sleep stage classification and quality estimation using wearable biosignals (PPG, ECG, actigraphy, HRV, temperature)
● AI/ML models for predicting sleep quality, fatigue, or mood-related sleep disruption
● Wearable-based measurement of stress responses related to poor or fragmented sleep
● Daytime fatigue and sleepiness prediction from overnight physiological signals
● Multimodal sensor fusion (e.g., PPG, accelerometry, HRV, temperature) for sleep and mood analytics
● Passive monitoring systems for sleep intervention and adherence tracking
● Monitoring circadian rhythm disruptions and chronotype patterns via wearables
● Digital biomarkers for behavioural sleep disorders
● Clinical validation studies of sleep wearables
● Real-world challenges in longitudinal sleep monitoring (adherence, data gaps, noise)
● Ethical and privacy concerns in behavioural sleep tracking
● Feedback and intervention design based on wearable sleep data

These are only suggestions; we welcome papers discussing other issues related to smart sensing

Important Datelines
Inform the Chair, as soon as you decide to contribute.
- Submission: Sep 6, 2025
- Notification: Sep 26, 2025
- Registration: Sep 26, 2025
- Camera ready: Oct 8, 2025

Note: The submission deadline is somewhat flexible, providing arrangements are made ahead of time with the chair.

Contribution Types
- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Paper Format
- See: http://www.iaria.org/format.html
- Before submission, please check and comply with the editorial rules: http://www.iaria.org/editorialrules.html

Publications
- Extended versions of selected papers will be published in IARIA Journals: http://www.iariajournals.org
- Print proceedings will be available via Curran Associates, Inc.: http://www.proceedings.com/9769.html
- Articles will be archived in the free access ThinkMind Digital Library: http://www.thinkmind.org

Papers Submission

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Registration
- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at http://www.iaria.org/registration.html

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