

The 12th International Conference on Awareness Science and Technology
(iCAST 2023)

Nov. 9-11, 2023, Aviation Building, Chaoyang University of Technology, Taichung, Taiwan

Call for Papers**Organizing Committee****Honorary Chairs**

Tao-Ming Cheng (Chaoyang U. of Technology, Taiwan)

MIYAZAKI Toshiaki (U. of Aizu, Japan)

Atsuto Suzuki (Iwate Prefectural U., Japan)

General Chair

Hsien-Chou Liao (Chaoyang U. of Technology, Taiwan)

General Co-Chairs

Li-Hua Li (Chaoyang U. of Technology, Taiwan)

Rung-Ching Chen (Chaoyang U. of Technology, Taiwan)

Alex Long-Sheng Chen (Chaoyang U. of Technology, Taiwan)

Program Chairs

Tzu-Chuen Lu (Chaoyang U. of Technology, Taiwan)

Shih-Hung Wu (Chaoyang U. of Technology, Taiwan)

Shao-Kuo Tai (Chaoyang U. of Technology, Taiwan)

Program Co-Chairs

Biswapati Jana (Vidyasagar U., India)

Sang-Woon Jeon (Hanyang U., Korea)

Organizing Chairs

Wen-Chang Cheng (Chaoyang U. of Technology, Taiwan)

Hsin-Ying Liang (Chaoyang U. of Technology, Taiwan)

Special Session Chair

Yung-Fa Huang (Chaoyang U. of Technology, Taiwan)

Steering Chairs

Goutam Chakraborty (Iwate Prefectural U., Madanapalle Institute of Technology & Science, India)

Qiangfu Zhao (U. of Aizu, Japan)

Robert Kozma (U. of Memphis, USA)

Tadahiko Murata (Kansai U., Japan)

Keun Ho Ryu (Chungbuk National U., Korea)

Kurosh Madani (U. of Paris-EST, France)

Publicity Chairs

Chin-Feng Lee (Chaoyang U. of Technology, Taiwan)

Ling-Hsiu Chen (Chaoyang U. of Technology, Taiwan)

Publication Chairs

Vimal Kumar (Chaoyang U. of Technology, Taiwan)

Jing-Rong Chang (Chaoyang U. of Technology, Taiwan)

Hsien-Wen Tseng (Chaoyang U. of Technology, Taiwan)

Local Arrangement Chairs

Chin-Feng Lee (Chaoyang U. of Technology, Taiwan)

Hsin-Cheng Wu (Chaoyang U. of Technology, Taiwan)

Zi-Yi Lim (Chaoyang U. of Technology, Taiwan)

Finance Chairs

Sue-Chen Hsueh (Chaoyang U. of Technology, Taiwan)

Chia-Jen Chang (Chaoyang U. of Technology, Taiwan)

Web Chairs

Hsiu-Chia Ko (Chaoyang U. of Technology, Taiwan)

Cheng-Hao Shao (Chaoyang U. of Technology, Taiwan)

Contact information•For queries related to the paper status and program, please contact: icast2023pcs@gmail.com•For queries related to registration, local information, and services, please contact: icast2023s@gmail.com**Sponsors:** Chaoyang University of Technology, University of Aizu, Iwate Prefectural University, Hanyang University, Madanapalle Institute of Technology & Science, Vidyasagar University, Midnapore College, and Academia-Industry Consortium of Taichung Software Park in Taiwan.**Technical Sponsors (tentative):** IEEE SMC Society, IEEE Taipei Section, IEEE Tainan Section, and IET Taipei Local Network.**Additional Support is Provided by:** IEEE SMCS Technical Committee on Awareness Computing, IEEE CIS Task Force on Aware Computing, IEEE CIS Task Force on Brain Informatics, Taiwan Ministry of Science and Technology, Taiwanese Association for Consumer Electronics, and Taiwan Education Society of Innovation and Invention.**Scope:** "Awareness" is the ability to be conscious of, feel, or perceive (Wikipedia). This implies vigilance in observation and alertness in drawing inferences from what one experiences (Merriam-Webster). The ultimate goal of awareness computing is to create computing systems that are themselves aware. This conference has been evolved from the International Workshop on Aware Computing (IWAC 2009), in Aizu-Wakamatsu, Japan, the International Symposium on Aware Computing (ISAC 2010) in Tainan, Taiwan, the International Conference on Awareness Science and Technology (iCAST 2011) in Dalian, China, iCAST 2012 in Seoul, Korea, iCAST 2013 in Aizu-Wakamatsu, Japan, iCAST 2014 in Paris, France, iCAST 2015 in Qinhuangdao, China, iCAST 2017 in Taichung, Taiwan, iCAST 2018 in Fukuoka, Japan, iCAST 2019 in Morioka, Japan and iCAST 2020 in Qingdao, China. The conference provides a forum for researchers, engineers, and scientists to discuss awareness computing and exchanging ideas, opinions, and the latest results in this emerging new field. Topics of interest include, but are not limited to, the following:

- A: Awareness Science:
 - A1: Awareness mechanism and modeling
 - A2: Machine learning/deep learning
 - A3: Pattern recognition and image understanding
 - A4: Neuro-computing/perception/cognition
 - A5: Fuzzy logic/granular computing/rough set
 - A6: Agent computing/swarm intelligence
 - A7: Ontology/semantics
- B: Awareness Technology:
 - B1: Context/situation/background/semantics awareness
 - B2: Intention/emotion/preference awareness
 - B3: Location/position/goal awareness
 - B4: Power/energy/capability/resource awareness
 - B5: Weakness/risk/danger awareness
 - B6: Safety/security/privacy/trust awareness
 - B7: Chance/opportunity awareness
 - B8: Knowledge/tacit knowledge engineering
- C: Awareness Related Applications:
 - C1: Social network
 - C2: Tele-communication/ubiquitous computing
 - C3: Image/video/speech/signal processing
 - C4: Overlay/P2P networking/M2M
 - C5: Big data/web/text mining
 - C6: E-business/e-government/e-learning
 - C7: Health/child/elderly care
 - C8: Smart grid/transportation/public services
 - C9: Device/automatic control/robotics
 - C10: Cloud computing/internet of things
 - C11: Cognitive radio
- D: The others: Any other topic about information technology is welcome.

Important Dates

- **July 17, 2023:** Deadline for paper submission
- **September 4, 2023:** Notification of paper acceptance
- **September 11, 2023:** Submission of final camera-ready papers
- **October 2, 2023:** Deadline for registration

Paper Submission and Publication

The paper needs to be submitted in IEEE two-column format and should be written in English. The manuscript should be unpublished work and must include enough detail about the goal, the problem to solve, proposed methods, and main results. The maximum length of the final camera-ready paper is 6 pages (maximum of additional two pages with extra charge).

All accepted papers will be published by the [Conference Publishing Service](#) of IEEE and submitted to [IEEE Xplore digital library](#). Also, they will be submitted for indexing through [EI \(Compendex\)](#) and [Scopus](#). Selected papers will be recommended for submission to a special issue of the journal "IJASE"(Scopus), "Applied Sciences"(SCI), or "Electronics"(SCI).

Submit your article at

<https://cmt3.research.microsoft.com/iCASTCYUT2023>