IEEE CIBCB 2025

2025 IEEE Conference on Computational Intelligence in Bioinformatics and Computational Biology

National Cheng Kung University, Tainan, Taiwan

August 20-22, 2025

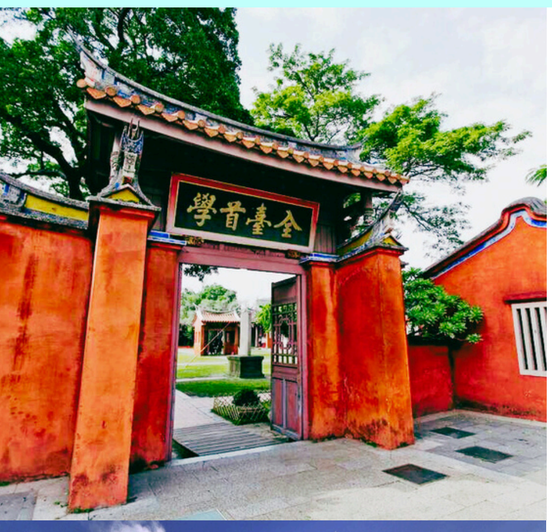
CALL FOR PAPERS

AI Drives Biomedical, Bioinformatics and Healthcare

While AI/CI has been highly developed and proven successful in various applications, its adoption in biomedical and bioinformatics analysis attracts significant attentions. This conference will bring together top researchers, practitioners, academics and students from around the globe to discuss the latest advances in the field of computational intelligence and artificial intelligence, as applied to real world problems in biomedical engineering, smart healthcare, medical ethics, legal aspects, biology, bioinformatics, computational biology, chemical informatics, and related fields. Any person is welcome to submit his/her works.

Important Date

- **Special sessions** Jan 31, 2025
- **Tutorial proposals** Jan 31, 2025
- **Paper submission** Mar 10, 2025
- **Short paper submission** Jun 10, 2025
- **Paper acceptance** Jun 10, 2025
- **Final submission** Jun 30, 2025



Topics of interest include but are not limited to:

AI/CI in Biomedical Engineering and Healthcare Informatics

- Medical and pathology image analysis
- Biomedical data modelling/data mining/model parametrization
- Health data acquisition/analysis/mining
- Healthcare information systems/knowledge representation/reasoning
- Personalized medicine
- Drug discovery
- Parallel/high performance computing
- Biomarker discovery and development

AI/CI in Computational Biology

- Computational epidemiology
- Surrogate modeling and representation
- Systems and Synthetic Biology
- Structure prediction and protein folding
- Modelling, simulation, and optimization of biological systems
- Epigenomics

AI/CI in Bioinformatics

- scRNAseq analysis
- Evolution, phylogeny
- Comparative genomics
- Gene expression array analysis
- Metabolic pathway analysis
- Sequence alignment

AI/CI in Medical Ethics and Legal Aspects

- Legal aspects of CI in medicine
- Ethics, fairness, biases
- Explainability/Interpretability/Understandability
- Sustainability

IEEE

IEEE Computational Intelligence Society

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More Information http://smile.ee.ncku.edu.tw/cibcb2025/