The 21st International Conference on Intelligent Information Hiding and Multimedia Signal Processing (IIHMSP 2025)

October 15-17, 2025, The Splendor Hotel, Taichung, Taiwan

Special Session on <u>AI-Enhanced QoL, Economics, Affective Computing and Modern Technology</u>

Call for Papers

Organizers: Prof. Naruki Shirahama, Prof. Satoshi Watanabe, and Prof. Junzo Watada

Background and Significance: Artificial Intelligence offers unprecedented opportunities for modern technologies, such as advanced economic analysis and affective computing methodologies. This special session explores innovative approaches to these distinct yet complementary fields. By leveraging advanced AI technologies, we aim to develop new methodologies for analyzing economic and managemental structures, while simultaneously advancing our understanding of subjective human experiences through affective computing.

Technical Approach: The session presents three core methodological streams.

- (1) Deep learning and GANs for advanced image processing and pattern recognition
- (2) Innovative approaches to economic and managemental analysis revealing structural patterns and relationships
- (3) Affective computing techniques utilize the VAS and Fuzzy Clustering to quantify subjective experiences.

These diverse approaches are unified through sophisticated data visualization techniques that enable intuitive interpretation of complex multidimensional data.

Expected outcomes and impacts

The integration of distinct methodological approaches powered by AI and ML aims to advance both economic analysis and affective computing. This research will contribute to the development of new analytical frameworks, while establishing more robust methods for quantifying and understanding subjective human experiences. The topics covered in this Special Session include, but are not limited to, the following areas:

- 1. Economic pattern recognition using deep learning and image processing
- 2. Modern innovative analysis of complex economic networks
- 3. Affective computing applications and subjective assessment
- 4. VAS integration with fuzzy clustering for human experience analysis
- 5. Advanced visualization techniques for multidimensional data
- 6. AI-driven pattern recognition in economic structures
- 7. Novel frameworks for quantifying subjective experiences

Submissions:

Papers should follow the template announced on the IIHMSP 2025 conference website (https://iihmsp25.csie.cyut.edu.tw), submit via the Microsoft CMT system, and then select SUBJECT AREAS: SS-04:Al-Enhanced QoL: Economics, Affective Computing and Modern Technology for submission (please refer to the following figure).

SUBJECT AREAS*	
Regular Paper	SS-05:AloT in Biomedicine
SS-01:Graph Algorithms and Applications	SS-06:Generative AI, Multimedia, and Image Processing
SS-02:Generative AI or Artificial Intelligence and Applications	SS-07:Pattern Recognition and Feature Learning in Complex Visual Data
SS-03:Metaheuristic Algorithms and Applications	
▼SS-04:Al-Enhanced QoL:Economics, Affective Computing and Modern Technology	
FILES	
You can upload from 1 to 3 files. Maximum file size is 20 Mb. We accept doc, docx, pdf formats.	
Drop files here	
-or-	
⊕ Upload from	n Computer
ADDITIONAL QUESTIONS	
1. One-Page Submission *	
Is this a one-page submission?	
Notice that one-page submission will NOT be included in Springer Digital Library and other indexes (El/Scopus).	
O Yes	
No	

Conference Proceedings Information.

Papers that are presented orally at the conference and meet the publication requirements of the IIHMSP-2025 conference proceedings will be published in Springer's book series titled "Smart Innovation, Systems and Technology." Normally, this series is indexed by the Scopus and EI Compendex.

Important Dates: (If IIHMSP 2025 extends the dates, follow those dates announced on the website)

Paper submission deadline: May 30, 2025 Acceptance notification: July 30, 2025

Camera-ready copy and registration: July 15, 2025

For more information:

Please visit the IIHMSP 2025 official websites (https://iihmsp25.csie.cyut.edu.tw or https://iihmsp25.github.io/) or contact the organizers of this special session.

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Special issue:

We organized a special issue in various journals, such as the JACIII (Q3), MDPI Mathematics (Q2), MDPI Applied Sciences (Q1), and MDPI FinTech Journal (Scopus). (These are open access journals.)