



**IEEE 4th International Conference on Computing and Machine
Intelligence**
April 05-06, 2025
Central Michigan University

CERTIFICATE

of Participation

This certificate is presented to
Hanan Shukur

**For participating and presenting the
paper titled:**

**Hyperparameter Optimization for Deepfake
Detection Improving CNN and Transformer
Performance Using Bayesian Search**

A handwritten signature in blue ink, appearing to be "Ah".

General Chair
Ahmed Abdelgawad, PhD