



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

# CERTIFICATE of Participation

**This certificate is presented to**  
**Ahmed Hussein Ahmed**

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

**Performance evaluation of the optical system using  
DQPSK and Coherent detection for long-distance  
transmission**

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

**General Chair**  
**Ahmed Abdelgawad, PhD**