



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

CERTIFICATE

of Participation

This certificate is presented to
Laith Jumma

**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 "Ah".

General Chair
Ahmed Abdelgawad, PhD