



People's Democratic Republic of Algeria

Ministry of Higher Education and Scientific Research

University of Mohamed Boudiaf - M'sila

Faculty of Mathematics and Computer Sciences



*The Fourth National Conference on "Mathematics, Biology and Medicine"*

*Edition 2025 – Modeling of Epidemic Propagation Phenomena*

*(NCMBM'2025) December 9, 2025, M'sila (Algeria).*

## CERTIFICATE OF PARTICIPATION

The organizing committee of the Fourth National Conference on "Mathematics, Biology and Medicine" certifies that:

Presented a **COMMUNICATION** entitled:

**Bilal LOUNNAS**

**Dimensionality Reduction in Medical Data: A PCA-Based Approach for Disease Prediction.**

Dean of Faculty



عميد كلية الرياضيات  
والإعلام الإلكتروني  
نويحي إبراهيم

Chairman of the 4th NCMBM'2025



عسيرة ياسين