



**ALGERIAN REPUBLIC DEMOCRATIC AND POPULAR**  
**UNIVERSITY OF M'HAMED BOUGARA BOUMERDES**  
**FACULTY OF TECHNOLOGY**



**3<sup>ed</sup> ICMM 2024**  
**INTERNATIONAL CONFERENCE ON MATERIALS AND MECHANICS**  
**20-21 November, Boumerdes University – Algeria**

**CERTIFICATE OF PARTICIPATION**

This certificate is proudly presented to

**Bakhti fatima zohra.**

**University Med Boudiaf of M'sila, Faculty of Technology, Mechanical Department, M'sila, Algeria**

**NUMERICAL STUDY OF THE EFFECT OF USING TWISTED TAPE AND A NANOFLUID ON THE THERMAL PERFORMANCE OF A CYLINDRICAL-PARABOLIC COLLECTOR.**

**Co-authors:** Fatima zohra BAKHTI



Signature



**Prof. LECHEB Samir**  
**President of Organizing Committee**