



Peopel's Democratic Republic of Algeria  
Ministry of Higher Education and Scientific Research  
University Mohamed Boudiaf M'sila



**City, Environment, Hydraulics  
and Sustainable Development Laboratory**

## Certificate of Participation

The Chairman of the Scientific Committee of the International seminar on Natural Risks,  
Urban Territory Management and Analysis Tools "The Advantages of Artificial Intelligence"  
held at Mohamed Boudiaf University, M'Sila, on December 16, 17 and 18, 2024,

testifies that **Hanane HOUBIB**

participated in the activities of the seminar with a communication entitled:

**Modélisation cartographique du risque d'inondation par  
la méthode SCS Curve Number et le "SIG"-le bassin versant d'Oued El ghorzi Batna-**

**Co-author: Sabre Abdeldjouad BOUCHAALA , Zine Elabidine Barkat**

President of the seminar

Chairman of the Scientific Committee



مدير المخبر  
الأستاذ: راجم علي

فريد حورزي