



People's Democratic Republic of Algeria  
Ministry of Higher Education and Scientific Research  
University of Ziane-Achour Djelfa  
Faculty of Exact and Computer Sciences  
Department of Matter Sciences



## **CERTIFICATE OF PARTICIPATION**

N°: CP-135

THIS IS TO CERTIFY THAT

**Imane Meriem KHALED**

**PARTICIPATED IN THE FIRST NATIONAL CONFERENCE ON MATTER SCIENCES**

**NCSM2023 (Presential and online) 20 DECEMBER 2023 DJELFA-ALGERIA with **ONLINE** communication**

**Entitled: Propriétés physique et photochimique de l'hétéro-jonction ZnCo<sub>2</sub>O<sub>4</sub>/ZnO : Application dans la photo dégradation du l'Indigo Carmine**

**Co-authors: KHENICHE Abdelhakim , TRARI Mohammed , GRISSI Khadidja et SOLTANI Soufiane**



**Dr. AISSADUI Regadia**  
President of The  
First National Seminar  
NCSM 2023



20 DECEMBER DJELFA-ALGERIA  
NCSM2023