



University Mohamed El Bachir El IBRAHIMI of Bordj Bou Arreridj

Faculty of Sciences and Technology

Department of Matter Sciences

Laboratory of Materials Physics, Radiation and Nanostructures



Certificate of participation

This is to certify that

Zakaria HADDAD

Has participated in the National Seminar of Physics, Chemistry, and Their Applications Webinar (NSPCA'23) which has been held in the Faculty of sciences and technology, University Mohamed El Bachir El Ibrahimi of Bordj Bou Arreridj, Algeria. March 6th-7th 2023 and have given the following Poster presentation.

Dimensionnement d'une installation d'un chauffe-eau hybride solaire/gaz sous les conditions météorologiques de M'sila, Algérie

With co-authors: Azzedine Nahoui, Khalil Zerari

NSPCA'23 chairman



Head of the Laboratory

