



Blended Intensive Programme

Advanced Ceramics Processing and Innovative Characterisation

ADCERPIC 2023

Department of Physics and Bernal Institute, University of Limerick, Ireland

Calling MSc and PhD Students

Contact: ErasmusProjects@ul.ie

We are inviting suitable Master and PhD Students from Participating Institutions* to apply for a short, intensive programme providing innovative learning, and practical training on advanced processing and characterisation of ceramics that has emerged over the two decades in the new millennium. Students will undertake a one-week physical mobility combined with a compulsory virtual component.

Students will earn 3 ECTS credit towards their respective degree.

Students will learn and experience cutting-edge and emerging advanced ceramics processing and characterisation techniques for numerous end-use. They will be able to select appropriate raw materials, process and techniques for making advanced ceramics with added value and benefits. They will develop significantly higher-level skills through critical thinking, problem-solving, peer and group-based learning and rigorous analysis of scientific information. Hands on training, lab demonstration, homework and assignments will make them confident and competent in ceramic processing and characterisation techniques and allow them to become leaders in advancing innovation in this field.

Topics include: Fundamentals of Ceramics and Characterisation, Bioceramics; electroceramics, multiferroics, Organic-Inorganic Hybrid Ceramics, Magnetoceramics, Ceramic coatings and thin films, Nanoceramics, Ceramics in photonics applications, Ceramics in ICT applications, Materials and surface Characterisation, electrical, dielectrical and optical characterisation, spectroscopy and microscopy, additive manufacturing of ceramics and high temperature materials, atomistic design, Multiphysics (COMSOL™) modelling and impedance analysis simulation.

Deadlines

Application to ErasmusProjects@ul.ie

20 December 2022

Registration for Virtual Event

20 January 2023

(01 February-30 April 2023)

Registration for Physical Event

28 February 2023

(22 May – 26 May 2023)

Participating Institutions* of Students and Teachers: University of Limoges, FR; FH Muenster, DE; Comenius University of Bratislava, SK; Wroclaw University of Science and Technology, PL; Bangladesh University of Engineering and Technology, BD; Italian Institute of Technology (IIT), Genoa, IT and University of Genoa, IT and University of Limerick, IRL (Coordinator). Guest speakers from CNR-ISSMC (Institute of Science, Technology and Sustainability for Ceramics), Faenza, Italy; Washington State University, Pullman, USA and University of Aveiro, Portugal will also provide training and lectures.



Department of
Physics



Bernal
Institute