

Our Team



Prof. Syed A.M. Tofail is an Associate Professor at the Department of Physics, and a member of the Bernal Institute of University of Limerick and is a recognized expert in the field of materials, surface and interface characterization. He has coordinated 2 European Commission funded FP7 projects, led over 30 national and international research projects through international collaborations. He has published over 90 peer reviewed articles and presented in over 200 international conferences.

Dr. Christophe Silien is a Lecturer of Nanoscience at the Department of Physics and a member of the Bernal Institute of University of Limerick. He has participated in 1 FP7 project, led 2 Science Foundation Ireland (SFI) projects, and is a collaborator in SFI Centre CURAM.. He is the lead inventor of two granted patents and 3 pending patents on spectro-nanoscopies, has published 46 peer reviewed articles.

Prof. Edmond Magner is Professor of Electrochemistry at the Department of Chemical Sciences, a member of the Bernal Institute and Dean of the Faculty of Science and Engineering of University of Limerick. Prior to joining UL, he developed commercially successful electrochemical biosensors at Abbott Laboratories (Boston, MA). He has participated in 4 FP7 projects and led and participated in numerous national and international projects that secured funding of over €22 million to UL. He has published 90 papers and supervised the theses of 20 PhD. His expertise spans over electrochemical detection, the immobilisation and characterisation of enzymes and proteins at interfaces, the redox properties of enzymes, the use of enzymes in sensors and as biocatalysts.

Dr. Ehtsham-ul Haq is a Senior Research Fellow in the Department of Physics. Before his current role, he was Science Foundation Ireland/ Analog Devices International Industry Research Fellow at the Bernal Institute of University of Limerick. His expertise spans over preparation and characterization of materials for magnetic, optical and electrical sensors and devices. He has a track record in the development and extensive use of Atomic Force Microscope, Scanning Near field Optical Microscope and scanning tunneling microscopy (STM) systems, and their applications to chemical and biological systems. He will conduct Scanning probe microscopy, XRD, rheology, thermal analysis, XPS, AES, PL, SEM, ToF-SIMS, FTIR, Microprobe Analyses, contact angle, TEM; DSC characterisations in WP2 and WP3 and standardisation in WP7.

Main contact in the project:

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Who we are

The University of Limerick (UL) is one of the leading universities in Ireland and has an excellent track record of attracting national, European and industrial funding for research. The Bernal Institute within UL comprises over 300 researchers active in materials and surface science research with a strong focus on microscopic, nanoscopic and spectroscopic characterisation of materials important for health, energy, transport, clean technology and manufacturing. In recent years, UL has received national funding over €40 M to continue as a national facility for state-of-the-art materials and surface characterisation. The UL team is a partner of CURAM, the Science Foundation Ireland National Centre for Biomedical Devices.

The UL team has a strong track record of using state-of-the-art characterization techniques and developing cutting edge and innovative techniques of characterization of materials, surface and interface, drug-device combinations, and molecular biology/protein biochemistry. The UL team coordinated the FP7 project LANIR, a project that built a super-resolution label-free nanoscope based on infrared finger-printing of materials, and the FP7 project BioElectricSurface.



Our product & services



Within MEDLoC UL provides off-site characterization and quality assurance infrastructure and specialist expertise in WP2 (Development of nanocomposites with PLA matrix for fused filament fabrication (FFF) technology) and WP3 (Development of innovative carbon-based inks (CNTs/graphene) with tailored rheological properties for ink-jet 3D printing). Furthermore, UL will provide benchmark characterisation in WP7 through standardisation of materials properties in drawing up the Quality Assurance Plan (QAP) and cost analysis. The UL team in M3DLoC comprises physicists, engineers, and electrochemists specialized in the fields of materials and interface characterization. UL Bernal Institute (<http://www.bernalinstitute.com>) is Ireland's national Centre of Excellence specializing in state-of-the-art and custom made advanced characterization techniques in materials and interface (<http://ulsites.ul.ie/mssi/equipment-and-contact-points>).

