

Materials Engineering Research Institute

Contact: a.h.jones@shu.ac.uk

[Analytical scanning electron microscopy](#) (SEM-EDX)

[Analytical transmission electron microscope \(TEM/STEM\)](#)

[Atomic force microscopy](#) (AFM)

[Concrete testing](#)

[Corrosion analysis](#) (SRET, SVET, [Environment-Assisted failure](#))

[Environmental scanning electron microscopy](#) (ESEM FEG)

[FTIR spectroscopy](#)

[Hardness testing](#) (micro and macro Vickers, Knoop, Rockwell)

[Insulation testing](#)

[Mathematical and computer modelling](#)

[Microsystems and machine vision](#)

[Milling](#) - MAZAK High Speed Machining

[Optical imaging and analysis systems](#)

[Raman spectroscopy](#)

[Scanning electron microscopy](#) (SEM-EDX)

[Spectroscopy](#) (ICP-OES)

[Surface analysis techniques](#) (XPS SIMS Auger)

[Surface engineering](#) (anti-wear or decorative coatings)

[Thermal Analysis](#) (TG/DTA-MS, TGA, DSC ad TMA)

[Tribological testing](#) - pin on disc (wet or dry), abrasive wear (calowear)

[X-ray diffraction](#) (XRD)

[X-ray fluorescence spectrometry](#) (XRF)