

Institute of Mechanical, Process and Energy Engineering



IMPEE is a dynamic, multidisciplinary research Institute focused on promoting excellence across our main research themes: Biomedical Engineering, Digital Engineering, Energy Harvesting and Conversion, and Multiphase Flow.



Computational and Digital Engineering represents, amalgamates and synergises the research strengths and expertise of our wide range of staff - particularly in the domains of modelling, computational physics, analysis, human factors, digital engineering, visualisation and robotics, providing better opportunities for interdisciplinary collaborations across the product life cycle.



Energy Harvesting and Conversion focuses on the integration of energy microtechnologies into macro-systems. This includes innovations in smart materials, smart devices with the exploitation of their applications in smart vehicles, smart buildings, smart cities, smart grids up to a complete smart infrastructure.



Biomedical Engineering focuses on the interface between mechanical engineering, material science and bioengineering. We bring together our expertise in micromechanics, tissue engineering, computational mechanics, micro/nano manufacturing, thermo-fluid mechanics and digital design and manufacture to address challenges including cancer diagnostics, tissue mechanics, tissue engineering and characterisation.



MultiPhase Flow brings together a range of interests in numerical and experimental modelling of fluid and thermal processes that underpin many of the key challenges of science and engineering.

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