



Industrial Problems in Marine Energy
4th November 2009



Joint Research Institute in Energy

Prof Robin Wallace
Director



Academic Staff



UoE IES

Prof A. R. Wallace

Prof I. G. Bryden

Prof S. H. Salter (Emeritus)

Prof D. M. Ingram

Prof Vacancy

Reader M. A. Mueller

Reader Vacancy

Dr T. Bruce

Dr S. Djokic

Dr D.E. Macpherson

Dr V. Venugopal

Dr J. P. Chick

Dr G. P. Harrison

Dr D. Mignard

Dr H. Chalmers

Dr C. L. Pritchard (Fellow)

HWU EA

Prof B. Richards

Prof J. Side

Prof B. Tohidi

Prof J. I. B. Wilson

Prof. S Roaf

Reader Dr S. Tao

Dr S. Kerr

Dr R.E. Harris

Dr W. Früh

Dr P. Kew

Dr D. McNeil

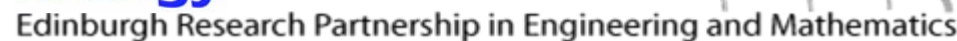
Dr E. Owens

Dr T. Mallick

Dr M. Dunnigan

Dr W. Bos

Dr N. Van der Laak

The word 'Energy' is written in a bold, blue, sans-serif font.The full name of the partnership is written in a smaller, blue, sans-serif font below the word 'Energy'. A stylized, grey, wave-like graphic is positioned above the text, extending from the right side of the 'Energy' word.



Research Staff



Barik, R Dr	McDonald, A S Dr
Candelise, C Ms	Moran, B R Ms
Chabanne, T Mr	Ochoa, L F Dr
Couch, S J Dr	Payne, G Dr
Cradden, L C Ms	Porro, J Mr
Davey, T A D Mr	Pritchard, C L Dr
Earl, S Mr	Sellar, B G Mr
Forehand, D Dr	Shek, J K H Dr
Gretton, G I Mr	Song, Z Dr
Hodgins, N W Mr	Taylor, J Mr
Jeffrey, H F Mr	Topper, M Mr
Keysan, O Mr	Winskel, M Dr

PhD Students: 40

Dr D. Jenkins
Dr M. Bowen
Mr A. Peacock
Dr B. Rowan
Dr Y. Jiang
Dr G. Kocher
Ms S. Turan
Mr C. Bullen
Ms G. Wood
Mr P. Pallawella
Dr R. Lan

PhD Students: 30

Energy

Edinburgh Research Partnership in Engineering and Mathematics

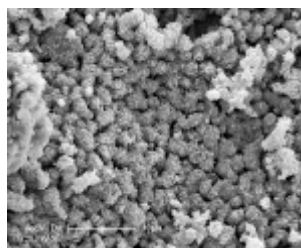
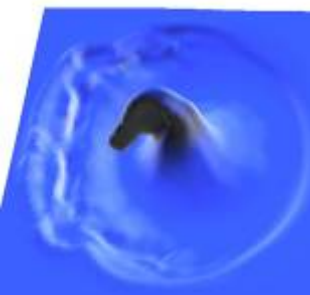
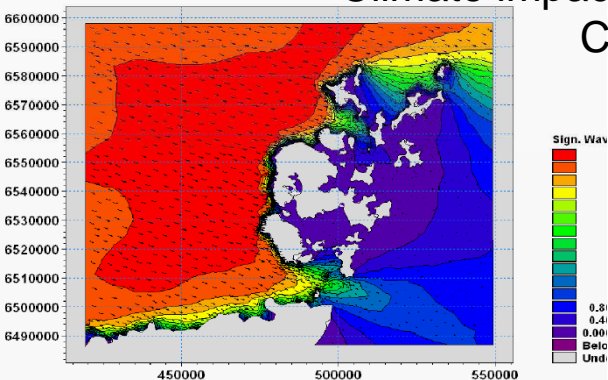
Research Activities



Wave statistics and characterisation
Tidal current resource assessment
Wind and atmospheric modelling
Renewable resource assessment
Climate impacts analysis



Coastal defence
Advanced numerical modelling
Physical modelling
Evolutionary computing
Fluid power conversion
Solar and photovoltaic conversion
Novel electrical machines
Fuel cells and energy storage
Power electronic interfaces
Network integration
Power quality
Congestion management
PS Dynamics and stability
Lifecycle analysis
Energy economics and policy



Research Activities



Marine Energy and Coastal Defence

Wallace, Bryden, Salter, Ingram, Bruce, Venugopal, Side, Kerr, Harris, Owens, Wilson

Renewable Energy and Climate

Harrison, Chick, Fruh,

Energy Conversion and Network Delivery

Mueller, Djokic, Macpherson, Bos

Fuel Cells and Energy Storage

Mignard, Pritchard, Tohidi, Tao, Van der Laak, Chalmers, Kew, McNeil

Photovoltaics and Solar Energy

Richards, Mallick, Wilson,

Urban Energy Demand and Supply

Roaf,

Maxwell and Energy

Over 200 mathematics and energy researchers, great many of international esteem

Already ripe and productive collaboration

Johnson, Zachary, Dent, Bialek, Dent, Price, Forehand, Ingram, Vanneste

New awards

Preventing wide-area blackouts through adaptive islanding of transmission networks”, EPSRC Complexity Science

Proposals pending

Network in Mathematics and the Management of Energy Systems

Opportunities that beckon

Super-pooling; Edinburgh Climate Change Centre

Joint proposals to write conjoining disciplines and JRIs

– That’s precisely what today is to explore and initiate

