Summary Report

UK-India Workshop on Wave & Tidal Energy

Wednesday, 29 October 2014 Chennai, India

Jointly organised by: UK Science & Innovation Network India and Knowledge Economy

in partnership with: Energy, Climate and Growth Unit

For more information about this workshop, please contact: <u>Dr Vijay Iyer</u> UK Science & Innovation Network India

AGENDA

- 0930 Registration
- 0945 Introduction and Welcome
- 1000 Showcasing the UK's capabilities in wave and tidal energy
 - **Robin Wallace**, University of Edinburgh
 - Lucy Greenhill, Scottish Association for Marine Science
 - Tim O'Doherty, Cardiff University
 - Gregorio Iglesias, Plymouth University
 - Vengatesan Venugopal, University of Edinburgh
 - David Ingram, University of Edinburgh
- 1115 Tea/Coffee
- 1130 S. A. Sannasiraj, Indian Institute of Technology Madras
- 1145 M. A. Atmanand/Purnima Jalihal, National Institute of Ocean Technology
- 1215 Group Discussion
- 1300 Lunch
- 1345 Next Steps
- 1445 Tea/Coffee and Close

Summary of potential UK-India collaboration opportunities

Opportunities

- Development of an experimental tidal plant
- Identification of gaps in national policies
- Engagement with stakeholders from industry and government
- Capacity development in research organisations in India
- Development of roadmaps R&D, deployment, policy, sectoral development
- Engagement with local community
- Engaging with funders using a top-down approach
- Exploring various funding programmes such as <u>UKIERI</u>, <u>Global Innovation</u> <u>Initiative</u>, Prosperity Fund

Potential joint research projects

- Transfer of human capacity (skills development)
- Wave farms for coastal defence
- Reliable slow speed generators
- Affordable condition monitoring
- Floating tidal stream turbines
- Roadmap for workable offshore renewable energy industry in India
- Wave farm aquaculture/offshore renewable energy with off grid applications
- Marine microgeneration
- Fluid structure interaction
- Resource assessment and mapping
- Desalination using Ocean Thermal Energy Conversion
- Morphodynamics in the presence of tidal stream turbines
- 1 MW feasible wave farm under water (demonstration project)
- Installation vessels/rigs
- Energy storage
- River basin technologies
- Extremes and scalability
- Ecosystem impact
- Substructure concepts for offshore wind