

Empowering coastal communities and cities with marine renewable energy

Background

Marine renewable energy has been increasingly exploited around the world, and there are increasing calls on public and private capital to fund developments. This is occurring while there is a growing concern about the future of coastal communities in both countries, which are threatened by both climate change and global economic shifts. The inaugural Indo-Australian Marine Renewable Energy Workshop was organised in April 2016 under a prior memorandum of understanding between the Indian Institute of Technology Madras, Chennai, and Swinburne University of Technology, Melbourne. It brought together representatives from several universities and national-government laboratories in each country. Their expertise ranged from mathematical theory to practical device development. The recommendations were:

- 1. Australia and India need to work closely together on coastal protection issues.** This research should be done considering not only physical-sciences and engineering aspects, but also socio-economic factors. These two nations are exemplars covering the spectrum of geographical, economic and social issues facing the rest of the world.
- 2. Australia and India should take the global lead in assisting small island nations and other regions that are critically vulnerable to inundation.** The R&D expertise underpinning Recommendation 1 should also be directed into a second stream intended to assist small island nations and similar vulnerable regions. Here, as in Recommendation 1, investigation of socio-economic factors should be mandatory.
- 3. The parties should meet to permit planning of joint research and development that delivers energy and physical security.**

Following Recommendation 3, a follow-up workshop will occur on Saturday, **17 February 2018, in Chennai, India**. It is timed to precede the Fourth International Conference on Ocean Engineering, ICOE 2018 (icoe.co.in) to be held in Chennai immediately after.

Objectives of INAMREW2

The second Indo-Australian Marine Renewable Energy Workshop (INAMREW2) will bring together selected researchers, industry and coastal-community representatives.

The first objective is updates via formal presentations. These will cover the latest scientific information on marine renewables in a coastal protection context, and report on approaches coastal communities and cities are taking to ensure social and local economic needs are met.

The second objective is development of a plan targeted to the needs of each major social and geographical region, focusing on India and on Australia, but not limited to these cases. The plan will cover the steps needed to advocate for developments, and to source funding for research and development. Project partners will be identified and will be able to implement elements of the plan after the workshop concludes

Venue

The Workshop will be held in the Indian Institute of Technology Madras, at the Industrial Consultancy and Sponsored Research (IC&SR) building of the Institute. Set in beautiful forested surroundings, the campus of IIT Madras offers an ideal environment for the most stimulating technical deliberations. The IITM campus is self-contained with all the facilities of a modern university, and is situated in an environment rich in flora and fauna. The Institute campus extends over an area of 2.5 square km in Chennai (formerly known as Madras) the political and cultural capital of Tamil Nadu. The city of Chennai is situated on the South-east coast of India and is India's fourth largest metropolitan city and well connected with all countries. The 400-year old city is the 36th largest metropolitan area in the world. The city is also a large commercial and industrial centre, and is known for its cultural heritage and temple architecture. The city, which has its own International airport, is well connected to many other countries by a number of leading airlines. Further details are at <http://www.iitm.ac.in>.

Workshop Topics

Ocean wave power

Tidal power

Ocean Thermal Energy Conversion

Ocean current power

Theory and numerical simulations

Laboratory experiments and prototype trials

Industry and government perspectives

Keynote talks will cover social, community and government as well as technical aspects. As with INAMREW 2016, selected talks may be invited to expand into a full paper for submissions to a refereed journal.

Abstract submission

Selection of papers for presentation will be based on a two-page abstract, limited to 200 words. It should be noted that digital copy (e-mail Word document) should reach Prof.S.A.Sannasiraj (sasraj@iitm.ac.in) before **15 November 2017**. Participants will be notified within three weeks to permit travel plans to be finalised. For details, visit the workshop website (icoe.co.in/workshop.php) or contact Prof.S.A.Sannasiraj (sasraj@iitm.ac.in).

Proceedings

A book of abstracts of all the papers to be presented at the workshop will be distributed among all registered delegates, together with a storage device containing all the accepted papers at the time of registration.

Registration

The registration fee for authors is **INR 7500** (US\$ 150). For a general delegate participant, the registration fee is **INR 9000** (US\$180). For ICOE 2018 registered delegates, the registration fee is **INR 4000** (US\$80). The fee includes participation in the workshop proceedings and lunch.

Mode of Payment

*The registration fee can be paid through bank transfer. The details of which are given below.

Account Holder : INAMEREW2 workshop 2018

Name of Bank : Canara Bank, IIT Madras branch, Chennai 600036 Branch Code: 002722

Account # : 2722101016117

MICR code : 600015085

IFSC / RTGS IFSE Code : CNRB0002722

INAMREW2

Chennai, India, 18 February 2018

<p><u>Organising committee</u> S. A. Sannasiraj (IITM) V. Sundar (IITM) R. Manasseh (Swinburne)</p>	<p><u>Submit abstracts to INAMREW2 Secretariat</u> Please address all communications to S. A. Sannasiraj (IITM) sasraj@iitm.ac.in Tel +91 -44 -2257 4817</p>
<p><u>International Scientific Committee</u> Felice Arena, Director, NOEL Laboratory, Univ. of Reggio-Calabria, Italy R. Manasseh, Swinburne, Australia Sannasiraj, S.A., IIT Madras, India Sundar, V., IIT Madras, India</p>	
<p>All communications regarding accommodation, local travel and registration should be sent to the following address: Prof. S.A. SANNASIRAJ Department of Ocean Engineering Indian Institute of Technology Madras Chennai 600 036, INDIA Ph: +91 -44 -2257 4817, Fax: +91 - 44 -2257 4802 Email: sasraj@iitm.ac.in; waveenergy2018@gmail.com</p>	