

MARIE M. DALY STEM LECTURE SERIES

Ocean Wave Energy Conversion: History, Current Status & Future Perspectives

Vast quantity of renewable energy in the form of surface waves exists in the Earth's oceans. Current estimates indicate that the total, world-wide surface wave power along coastlines is approximately 2 TW, which is the same order of magnitude as the world's electricity consumption. Along the east and west coastlines of the US, an annual recoverable wave power of about 1,170 TWh exists. This is significant to the overall energy supply, as roughly 50% of the US population live close to the coast. Dr. Malali will talk about the history of ocean wave energy conversion technology. Subsequently, current status of ocean wave energy conversion systems will be discussed. Impact of sea states and device control on system efficiency will also be addressed. New developments in wave energy extraction such as wave energy arrays and hybrid energy conversion systems will be briefly discussed as part of future perspectives on ocean wave energy conversion.



Lecture by:
*Dr. Praveen Malali,
Director of Research,
Center for Sustainable
Energy & Environmental
Engineering (CSE3),
East Carolina University,
Greenville, NC*

Dr. Malali earned his PhD in 2015 from Old Dominion University, VA in Mechanical Engineering. His research focuses on ocean wave energy conversion systems, solar-thermal power generation and energy-savings technologies. His expertise is in ocean wave energy, solar-thermal power generation and solar energy. His teaching interests lie in the areas of fluid mechanics and thermodynamics. Dr. Malali has been part of CSE3 since 2017 and has worked on research and educational projects funded by National Science Foundation (NSF), Environmental Protection Agency (EPA) and Burroughs Wellcome Fund (BWF).

11 am-12 pm
March 29, 2019
Room 206, Ridley
Student Center

Sponsored by:
Department of Technology,
Contact information:
Dr. Bijandra Kumar, Dr. Mehran Elahi,
121B Dixon-Patterson Hall,
Phone: 252.335.3290, E-mail: bkumar@ecsu.edu

