



Politecnico  
di Torino



DIMEAS

Dipartimento  
di Ingegneria Meccanica  
e Aerospaziale

DIMEAS SEMINAR AND HANDS-ON WORKSHOP  
IN COLLABORATION WITH DIATI

# REMOTE SENSING OF THE OCEAN: ADVANCES FOR OFFSHORE RENEWABLE ENERGY AND MARINE APPLICATIONS



## SPEAKER



### Encarni Medina-Lopez

Associate Professor –  
School of Engineering –  
University of Edinburgh



**Register at:**  
<https://forms.gle/PJKrMmX5Pt4fSg6x7>



**23rd October 2025**  
**15:00–18:00**



**DIATI 3, BIBOLINI Room,**  
**ground floor**  
**Politecnico di Torino**

## PROGRAM

The session will begin with a short presentation on the research activities led by Dr. Medina-Lopez, with the aim of exploring potential areas for collaboration. It will then move on to practical applications of satellite data in geospatial analysis, using tools available through Google Earth Engine. Variables such as chlorophyll-a and wave heights will be considered as examples, though the methodology remains flexible and interdisciplinary.

Participants are expected to bring their own laptops, as the session will include hands-on activities.

### Biography

Dr Encarni Medina-Lopez is a Senior Lecturer in Ocean Observation at the School of Engineering, University of Edinburgh. Her research focuses on the use of satellite remote sensing and spatial data to investigate complex challenges that link water, energy, and the environment. She is particularly interested in studying the behaviour of water bodies using remote sensing techniques and exploring their relationship with social and environmental factors. A central focus of her research is the use of satellite imagery to estimate sea surface temperature and salinity at high spatial resolution.

She serves as Deputy Director of SENSE – the UKRI and UKSA Centre for Satellite Data in Environmental Science – and is a Turing Fellow at the Alan Turing Institute. Her work using satellite data has been selected as a supporting Case Study for the upcoming round of Copernicus Marine funding.

Dr Medina-Lopez collaborates with a wide range of public and private organisations, including the British Geological Survey (BGS), the Centre for Environment, Fisheries and Aquaculture Science (Cefas), the Scottish Environmental Protection Agency (SEPA), and the National Oceanographic Centre (NOC).

Most recently, she was awarded £2.2 million by EPSRC for the project “Failure Modes of Engineering: a network for future inclusivity, sustainability, and global impact.” This initiative will co-create an international network of researchers and practitioners focused on engineering solutions for climate change and biodiversity loss, with particular attention to their impact on women, children, and underrepresented communities. The project is global in scope and places affected communities at the heart of the co-creation process.