Dr.TUNE USHA

Scientist-G
National Centre for Coastal Research (NCCR)
Ministry of Earth Sciences, Government of India

EDUCATIONAL QUALIFICATIONS

M.B.A (General Management), 2011, Anna University**.**

Ph.D. (Geomatics under faculty of Civil Engineering) – 2008 – College of Engineering, Anna University

M.Sc (Environment and Ecology)- 2004 S.M. University

M.Tech (Remote Sensing) – 1993 – College of Engineering, Anna University.

B.E. (Instrumentation and Control Engg) – 1991 – Govt. college of Technology, Coimbatore, Tamil Nadu.

EMPLOYMENT RECORDS

1. **Scientist-G & Group Head (Coastal hazards) – National Centre for Coastal Research (2020 – till date)**

2. Scientist-F & Group Head (Coastal hazards) – National Centre for Coastal Research (2015 – 2020)

3. Scientist-E, ICMAM-Project Directorate, Department of Ocean Development, 2009-2015

4. Scientist-D , ICMAM-Project Directorate, Department of Ocean Development, 2003-2009

5. Scientist-C, ICMAM-Project Directorate, Department of Ocean Development, 1999-2003

6. Senior Research Associate – Institute for Ocean Management, Anna University(1996-1999)

7. Project Associate – Institute for Remote sensing, Anna University (1993-1996)

MAJOR PROGRAMS & ACHIEVEMENTS

Domain Expertise

Applications and development of Geospatial solutions for addressing issues related to coastal ecosystems, hazards , vulnerability and risk.

Major Programs

➢ Involved in the development of two operational Coastal Flood Warning System for the coastal cities of Chennai and Mumbai. Integrated Flood warning systems are end-to-end web GIS based decision support systems comprising of data from weather models, field data and inundation generated using a combination of numerical models and translated to GIS based ward level information. Both the systems are being used by the State Governments for mitigation operations.

➢ Involved in the development of Marine Spatial Plans for two areas namely Puducherry and Lakshadweep

➢ Development of GIS information system for Coastal critical habitats along the Indian Coastline.

➢ Tsunami inundation mapping and modeling using ALTM and Cartosat data for the entire Indian Coast and generation of large-scale Tsunami hazard maps for the entire Coastline.

➢ For the Safety of the fishing community specially during times of coastal hazards, a Dashboard and app (Thoondil) was developed along with the Department of Fisheries, GoTN and is being used across the state, the real time data is being received at DoF office and NCCR. Similar system was also developed for Kozhikode, Kerala in their vernacular language.

➢ Development of biophysical vulnerability for Andhra Pradesh, Maharashtra, Odisha and Tamil Nadu using Invest model.

➢ Development of a multi-hazard decision support system for coastal hazards

➢ Training and capacity building activities of NCCR and have conducted about 80+ training programmes to the coastal stake holders.

AWARDS

1. Recipient of the Vel's University award "Achiever in Science – 2017"

2. Received Esri India Award for "Achievement in GIS" for the work done on developing the Chennai Flood Warning System (C-FLOWS)

PUBLICATIONS

- 24+ publications in national and international referred journals.
- 40+ publications in national and International proceedings.
- 25+ Technical reports
- 80+ Delivered talk in workshops and International Working Groups
- 15+ professional recognition as member of various international and national working group.