Tamilselvan Jayabalan
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EDUCATION

Program	Institution	%/CGPA	Year
M.S(Ocean Engineering)	Indian Institute of Technology, Madras	7.5	2022
M.Tech (Coastal Management)	CEG, Anna University	7.5	2016
B.E(Civil engineering)	Mamallan Institute of Technology, TN	6.9	2014
XII	Sri Vijay Vidyalaya Higher secondary school, TN	8.4	2010
X	Government higher secondary school, Dharmapuri TN	8.6	2008

● Forecasted Gaja cyclone-induced storm surge, as details updated every hour to Tamilnadu Government for mitigation measures
● Handled Indian major ports and international port projects

RELEVANT COURSE WORK AND SKILLS

1. Coastal engineering
2. Wave hydrodynamics
3. Numerical Techniques for ocean engineering

4. Foundation for data science
5. Basic statistics and probability
6. Machine learning

Programming Languages	Python (NumPy, Pandas, matplotlib, Sklearn), MySQL, Matlab, Fortran
Software	Delft3D (flow & Wave), Telemac2D &3D, SISYPHE, AdCirc

WORK EXPERIENCE

Department of Ocean Engineering, Indian Institute of Technology

Project officer
(Nov '2017 – Nov'2020)
(Apr '2021 – Nov'2021)

- Compound extreme events induced flooding pattern in Ennore estuary such as high tide, storm surge, and extreme river discharge
- Customization of 3D hydrodynamic and siltation tool for understanding the suspension details in the water column for the critical location of erosion and deposition
- Study of siltation pattern due to the construction of berthing structures at Port Louis, Mauritius, Kulthusfusi, Maldives
- Dredge disposal study at Baypore port, Kerala
- Identification of potential tidal energy harvesting zones along the Indian Coast
- Design of Intake and Outfall, Simhadhri Super Thermal Power Project, Vishakhapatnam

National center for sustainable coastal Management (NCSCM), Anna university

Project Assistant II
(Feb'2017-Nov '2017)

- Conducting the hydrodynamic study around the Sagar Island
- Identification of potential Mangroves growing regions at Adani Port Mundra, Gujarat

WORK EXPERIENCE IN DATA SCIENCE*(*-Ongoing)*

Flood forecasting using Machine learning

Research Project

- Historical Rainfall and flood details collected and it has been organized using the NumPy library in python
- Modeled trained with the past data and logistic regression supervised machined learning method used to customize the flood forecast
- Working in image processing for overlay flood level

CO-CURRICULAR ACTIVITIES

During UG & PG

- Intern at the National Institute of Ocean Technology (2016)
- The training course on "Instrument and Methods for Coastal Ocean Monitoring" organized by NCCR (2016) – learned to use ADCP, Handheld GPS, Total Station
- Intern in L&T Construction Pvt Ltd (2014) – Multi-stored monolithic building, R.A Puram Project, Chennai
- Intern in Public Work Department (TN PWD), Chennai (2013) – monitored the renovation of the MGR memorial structure

Publication

Journal of Environmental monitoring and assessment: Tamilselvan Jayabalan [1], Murali kantharaj[2], Sannasi Annamalaisamy Sannasiraj[3], Vallam Sundar [4],"Evaluation and mitigation of tidal prism and inundation around a bar build estuary – a case study" (Under review)

EXTRA-CURRICULAR ACTIVITIES

Social

- Involved in many social activities through NSS Camp for 4 years
- participated in the Chennai Science City Festival as a representative of NCSCM.

Sports

- Zonal level cricket player in Tamil Nadu Cricket Association