

**IIT Guwahati Technology Innovation and Development
Foundation**

Guwahati-781039, Assam

Applications are invited for an **Online/Offline interview** for NMICPS Sponsored "**Technology Innovation Hub (TIH) on Technology for Underwater Exploration**" at IIT Guwahati TIDF. The project titles along with the name of Principal Investigators (PIs) are given below.

Date: To be Announced

Time: To be Announced

Online: Google Meet / Skype

SI No.	Project Staff Designation	Number of Vacancies	Pay Recommended	HRA	Medical Facility	Duration of Appointment in months	Qualifications
1	JRF	17	Rs 31000	Yes 16%	No	11	B.Tech/Equivalent in ME/PE/IN/MT/ Mechatronics/Design with valid <i>GATE Score</i> * or M. Tech in ME/PE/Mechatronics * B.Tech. candidates without having <i>GATE Score</i> , and with experience in Underwater Technologies will be considered with pay scale Rs. 22,000 – 1,000 – 32,000/- (+ HRA).

Candidates having their B Tech / M Tech Projects in the following mentioned relevant fields will be preferred. The candidate will be working in one of the following Projects:

PR - 1: Design and development of apparatus for underwater repairing and maintenance of metallic & non-metallic structures. This project work will be carried out in the **IIT Guwahati Campus**. **PI: Prof. Sajan Kapil**

PR - 2: Design and development of novel, cost-effective and integrated robot-laser-based drilling technologies for under water material processing. This project work will be carried out in the **IIT Guwahati Campus**, **PI: Prof. S. N. Joshi**

PR - 3: Design and in-house fabrication of an underwater compressed air storage system. This project work will be carried out in the **IIT Guwahati campus**. **PI: Prof. N. Sahoo**

PR - 4: Development and Analysis of Intelligent Integrated Water Habitat Robot for Surveillance, Monitoring and Cleaning. This project will be carried out in the **NIT Rourkela Campus**. **PI: Prof. D. R. Parhi**

PR - 5: Vibration analysis of underwater pipe line. This project work will be carried out in the **NIT Rourkela Campus. PI: Prof. R. K. Behera**

PR - 6: Short duration underwater measurement diagnostics of saline water behaviour through shockwave impingement. This project will be carried out in the **IIT Guwahati Campus. PI: Prof. V. Kulkarni**

PR - 7: Design and development of underwater technologies for defence applications. This project will be carried out in the **IIT Guwahati Campus. PI: Prof. B. S. Reddy**

PR - 8: Development of Unmanned Underwater Vehicle for monitoring of underwater eco system and weed management. This project will be carried out in **IIT Guwahati Campus. PI: Prof. S. K. Dwivedy**

PR - 9: Development of flexible multi-link spatial manipulator mounted on a moving body for underwater exploration. This project will be carried out in **IIT Jodhpur Campus. PI: Prof. Barun Pratiher**

PR - 10: Design and Development of In-pipe robot. This project will be carried out in the **IIT Roorkee Campus. PI: Prof. P. M. Pathak**

PR - 11: Design, Analysis and Development of a Low Cost Underwater Vehicle (Mini Submarine) for Tourism Purpose & Sustainable Tourism. This project will be carried out in the **IIT Guwahati Campus. PI: Prof. P. S. Robi**

PR - 12: Intelligent Underwater Robot for Target Detection. This project will be carried out in **Odisha university of Technology and Research, Bhubaneswar Campus. PI: Prof. Saroj K. Pradhan**

PR - 13: Design and development of shape memory alloy actuated soft jelly fish robot towards inspection of intricate structures and surveillance with IOT based health monitoring system. This project will be carried out in the **IIT Indore Campus. PI: Prof. I. A Palani**

PR - 14: Boosting underwater tourism by 3D printed coral reef & Sustainable technologies for underwater tourism. This project will be carried out in the **IIT Guwahati Campus. PI: Prof. Biranchi Panda**

PR - 15: Exploration of the aquatic ecosystem of river Brahmaputra. This project will be carried out in the **IIT Guwahati Campus. PI: Prof. U. S. Dixit**

PR - 16: Analysis and development of computational intelligence based navigational strategies for an underwater robotic vehicle. This project will be carried out in the **NIT Arunachal Pradesh Campus. PI: Prof. Prases K. Mohanty**

PR - 17: The candidates will be working on experimental Investigations into the effect of reinforcement particles on the tribological and corrosion properties of marine grade AA5052 aluminium alloy joints through FSW and Development of suitable attachments. This project work will be carried out in the **NIT Calicut Campus. PI: Prof. Basil Kuriachen**

How to apply and selection process: Eligible candidates have to fill the form using the link given in the end of this paragraph and Upload the CV containing all educational qualifications, experiences, contact address, phone no., Email, etc as a single PDF file on or **before 15th August 2022.**

Link for online application form:

<https://forms.gle/2nHQZYtP636NB1Sk6>

Shortlisted candidates will be informed via mail on **22rd August 2022** about the mode of online/offline interview.

Ref: IITGTIDF/TIH/22-23/Recct05

Project Director

