**Booking Details**

**TOWING TANK WITH CARRIAGE SYSTEM**

|  |  |
| --- | --- |
|  | **Name of the equipment:**  TOWING TANK WITH CARRIAGE SYSTEM  **Make & Model:**  Allied Engineering company  **I-Stem Registration ID-**  3222331  **Category of Instrument**  Testing  **Types of Analysis / Testing**  Fabrication  **Application:**   * **Wave Behaviour:** Reflection and transmission analysis. * **Model Testing:** Scale models of wave energy converters and coastal protection structures. * **Structural Impact:** Pressure and force studies on coastal structures.   **Description of Instrument**  Wave flume dimensions 40m\*2m\*2m , Paddle unit holding frame , Plunger unit height maintain unit ,Capable of generating regular waves with wave height from 3 to 8 cm and period ranging between 0.7 to 1.4 s |

|  |  |
| --- | --- |
| **Book through I-STEM:**  <https://www.istem.gov.in/>  **Slot Booking Link**  [I-STEM Slot Booking link for External User](https://www.istem.gov.in/equipment-info/22331/Wave-Flume-cum-Towing-Tank-110m-x-4m-x-4m) | **Booking available for**  Internal and External Both  **Requisition form for**  [Internals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf)  [Externals](https://randc.nitc.ac.in/pdf/instruments/civil/CED-REQUISITION_FORM_Internal.pdf) |

|  |  |  |
| --- | --- | --- |
| **Faculty In-charge:**  Dr Anand K.V  **Email ID:**  [kvanand@nitc.ac.in](mailto:kvanand@nitc.ac.in)  **Phone number:**  +91-9940084140 | **Contact Details**  **Technical Staff:**  Sharafudheen CT (TA) [Sharafudheenct@nitc.ac.in](mailto:Sharafudheenct@nitc.ac.in)  9847696031 | **Department**  CED  **Office Email ID**  [cedoffice@nitc.ac.in](mailto:cedoffice@nitc.ac.in)  **Location**  Offshore lab, Department of Civil Engineering  **Lab Phone No**  0495-2286246 |

**Features, Working Principle and Specifications**

|  |  |
| --- | --- |
| **Features of the equipment**  ✔ **Large Towing Tank (100m × 4m × 4m)** for hydrodynamic testing ✔ **Robust Carriage System** (4.3m × 3m) with precision wheels on a round track ✔ **Dual Siemens Motors** ensuring smooth operation ✔ **Variable Speed Control** up to **3.5 m/s** | **Unique features/Measurement capabilities, if any**  ➤ Ship manoeuvring & stability studies ➤ Hydrodynamic performance analysis ➤ Propeller model testing |
| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**   * **Tank Size:** 100m × 4m × 4m * **Carriage Frame:** 4.3m × 3m * **Drive System:** Siemens IE2 series TEFC motors * **Max Speed:** 3.5 m/s | **Measurement/Sample specifications:**   * **Testing Capability:** Scale model testing * **Instrumentation Setups:** Must be arranged based on testing requirements   **Type of Sample Required for Analysis / Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions** |

|  |
| --- |
| * **Sample Type:** Scaled hydrodynamic models * **Pre-preparation:** Must be structurally stable * **User Instructions:** Submit instrumentation plans before testing |

**User Charges Rs. (GST Extra)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Sl no** | Type of Analysis / Testing | **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| 1 | Testing | 2000/day | Rs 1500/hr | Rs 2000/hr | Rs 5000/hr |
| 2 | Pre-testing installations | NA | Rs 2000/day | Rs 5000/day | Rs 10000/day |
| 3 | Post testing removal of models and other setup (no charge for first 3 working days) | Rs 2000/day | Rs 5000/day | Rs 5000/day | Rs 10000/day |