**Fuel Cell Experiment Test Rig**

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|  | **Name of the equipment:**  Fuel Cell Experiment Test Rig  **Make & Model:**  Heliocentris & EL 1500, Nexa®  **I-Stem Registration ID-**  **3224910**  **Category of Instrument**  Educational training system  **Types of Analysis / Testing**  Polarization Curve Analysis  Impedance Spectroscopy  Durability and Cycle testing  **Application:**  Educational Demonstrations  Research and Development  System Optimization  **Description of Instrument**  The Fuel Cell Test Rig is an advanced educational and research platform designed to study and analyse the performance characteristics of fuel cells under various operating conditions. |

**Booking Details**

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| **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/24910/Fuel-Cell-Experiment-Test-Rig) | **Booking available for**  **Requisition form for**  Internal  External |

**Contact Details**

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**Features, Working Principle and Specifications**

**Contact Details**

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| **Features of the equipment**   * Comprehensive Measurement Capabilities * Dynamic Load Testing * Modular Design which enabling easy integration of additional components such as hydrogen generators, storage systems | **Unique features/Measurement capabilities, if any**   * Data Acquisition and Analysis * Simulate real-world operating conditions by applying variable loads to the fuel cell. |
| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**   * Proton Exchange Membrane (PEM) Fuel Cell. * Typically, up to 1.5KW, depending on the configuration. * Ranges from 50oC to 80oC * Hydrogen supply * Control Interface | **Measurement/Sample specifications:**   * Voltage and Current Monitoring * Temperature sensing * Pressure measurement |

**Type of Sample Required for Analysis / Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions**

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

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| **Test Details** | **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| NA | NA | NA | NA | NA |
| NA | NA | NA | NA | NA |