**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 DemonstrationsResearch and DevelopmentSystem 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** InternalExternal |

**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.
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| **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
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**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 |