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|  | **Computerized Variable Compression Ratio Multifuel Engine Test Rig****Name of the equipment:** Computerized Variable Compression Ratio Multifuel Engine Test Rig**Make & Model:**Kirloskar, Tv1 (SR No- VE019)**I-Stem Registration ID-** **Category of Instrument**Heat Engines**Types of Analysis / Testing**Performance (Load Test), Combustion Analysis Charts (P-Ɵ, P-V etc), Heat Balance and Emission Test for constant or variable Compression Ratio**Application:** Diesel and alternative liquid fuels (like bio-diesel) or hydrogen**Description of Instrument**The engine is a single cylinder, four stroke, water cooled with maximum 5 kW output at 1500 RPM at normal compression ratio. The compression ratio can be varied from 12:1 to 20:1 for diesel / bio-diesel operation. |

**Booking Details**

**Contact Details**

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| **Book through I-STEM:** <https://www.istem.gov.in/>**Slot Booking Link** | **Booking available for**Internal and External Both**Requisition form for** [Internals](https://randc.nitc.ac.in/pdf/instruments/med/20.%20Internal.pdf)[Externals](https://randc.nitc.ac.in/pdf/instruments/med/20.%20External.pdf) |

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**Features, Working Principle and Specifications**

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| **Features of the equipment*** The engine is a single cylinder, four stroke, water cooled with maximum 5 kW output at 1500 RPM at normal compression ratio.
 | **Unique features/Measurement capabilities, if any*** The compression ratio can be varied from 12:1 to 20:1 for diesel / bio-diesel operation.
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| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**

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| Bore | 87.5 mm |
| Stroke | 110 mm |
| Displacement | 661 cc |
| Normal Compression Ratio | 17.5:1 |
| Dynamometer | A.C. Regenerative type |

 | **Measurement/Sample specifications:** * Diesel and alternative liquid fuels (like bio-diesel) or hydrogen
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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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| * Quantity: As per the type of test.
* Sample should be in sealed condition with proper labelling.
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**User Charges Rs. (GST Extra)**

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| **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| Rs. 500/ sample | Rs. 1000/ sample + GST | Rs. 3000/ sample + GST | Rs. 3000/ sample + GST |