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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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| **Faculty In-charge:**  Dr. Saleel Ismail  **Email ID:**  [saleel@nitc.ac.in](mailto:saleel@nitc.ac.in)  **Phone number:**  9884691904 | **Technical Staff:**  Pradeep Kumar K K kkp69@nitc.ac.in  Dhaneesh DC  dhaneeshdc@nitc.ac.in  Athul Krishna K R  [athulkrishnakr@nitc.ac.in](mailto:athulkrishnakr@nitc.ac.in)  Vasu TC  tcv74@nitc.ac.in | **Department**  MED  **Office Email ID**  medoffice@nitc.ac.in  **Location**  Heat Engines Lab, Department of Mechanical Engineering  **Lab Phone No**  04952286456. |

**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. |
| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**   |  |  | | --- | --- | | 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 |

**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. |

**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 |