**Booking Details**

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|  | **Variable compression ratio multifuel engine test rig****Name of the equipment:** Variable compression ratio multifuel engine test rig**Make & Model:**Kirloskar, Engine No. 18.1324/1300209**I-Stem Registration ID-** **3224886** **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)**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 14:1 to 18:1 for diesel/ bio-diesel operation. |

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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/24886/Variable-Compression-Ratio-Multifuel-Engine-Test-Rig) | **Booking available for**Internal and External Both**Requisition form for** InternalsExternals |

**Contact Details**

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| --- | --- | --- |
| **Faculty In-charge:** Dr. Saleel Ismail**Email ID:**saleel@nitc.ac.in**Phone number:**9884691904 | **Technical Staff:** Pradeep Kumar K K kkp69@nitc.ac.inEldho P VargheseEpv76@nitc.ac.inDhaneesh DCdhaneeshdc@nitc.ac.inVasu TCtcv74@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 14:1 to 18:1 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 | Eddy Current |

 | **Measurement/Sample specifications:** * Diesel and alternative liquid fuels (like bio-diesel)

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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 |