**Booking Details**

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| https://lh7-rt.googleusercontent.com/docsz/AD_4nXc3uOgVW1S70ANH_Sbh5NPrbkD5IJ3rXOvVRVZnLmWILkXaNDPB0ksS47o9MOZPUWyc252HOVppsnS6ZkQ75K-VxH_-P6fKn_IgZ0Bqh-uwH_Y0u8mrsMGt2-c4grlkMORcEQ_Ay02jOFvYfdLpPu9KsU9hmXqDJgjwQh43wzZ1a08oMp4pWU8?key=2ndPAcLvR1_3cEQZcUu1Lg | **3D OPTICAL PROFILOMETER**  **Name of the equipment:**  3D OPTICAL PROFILOMETER  **Make & Model:**  ALICONAModel- Infinite Focus G5  **I-Stem Registration ID-**  **3224898**  **Category of Instrument**  Characterization and Testing  **Types of Analysis / Testing**  Surface profile measurement  **Application:**  1. Surface roughness measurement (2D and 3D)  2. Area measurement after corrosion  3. Thickness measurement  4. Tool nose measurement and wear measurement  **Description of Instrument**  Capable of performing non-contact 3D surface roughness, micro geometry, form measurements, etc. Also, this instrument can generate, capture and display point cloud of high density, registered true colour information. |

**Contact 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/24898/3D-Optical-Profilometer) | **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. Basil Kuriachen  **Email ID:**  [bk@nitc.ac.in](mailto:bk@nitc.ac.in)  **Phone number:**  +91-9947187133 | **Technical Staff:**  Harikrishnan K (TE) [harikrishnank@nitc.ac.in](mailto:harikrishnank@nitc.ac.in)  SHIBIN (ST)  [shibinr@nitc.ac.in](mailto:shibinr@nitc.ac.in)  SASI KK (TA)  [kksasi@nitc.ac.in](mailto:kksasi@nitc.ac.in) | **Department**  MED  **Office Email ID**  [medoffice@nitc.ac.in](mailto:medoffice@nitc.ac.in)  **Location**  FIST LAB, CAD/CAM CENTRE, Department of Mechanical Engineering  **Lab Phone No**  0495 228 6476 |

**Features, Working Principle and Specifications**

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| **Features of the equipment**   * High-Resolution 3D Surface Measurement * Non-Contact Measurement * Versatility in Sample Types * Form and Roughness Evaluation * Advanced Software Capabilities | **Unique features/Measurement capabilities, if any**   * Focus Variation Technology * Automatic Stitching |
| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**   |  |  | | --- | --- | | * **Travel range in XY** | 100 mm X 100 mm motorized |  * **Travel range in Z** -100 mm motorized  |  |  | | --- | --- | | * **6 Objectives** | 2.5X, 5X, 10X, 20X, 50X, 100X |  * **Min measurable radii** 1 μm * **Finest lateral resolution** 0.44 μm for 100x objective 3D rotation unit for capturing 3D data points | **Measurement/Sample specifications:**   * Metallic/composite/alloys etc., * Maximum size usually limited 100mm x 100mmx100mm |

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

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| * Quantity: Maximum size usually limited 100mm x 100mmx100mm * Sample Type: Metallic/composite/alloys etc., * Maximum No. of Samples Accepted at a Time- 2 * Minimum No of Days Required for Analysis – 1 |

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

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| **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| 250/- per scan | 500+ 18%GST  Per scan | 500+ 18%GST  Per scan | 500+ 18%GST  Per scan |