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| https://lh7-rt.googleusercontent.com/docsz/AD_4nXeH1FcN-dfwvkyqb5DrkBfpBToumxzLSm9nofJpsuo4VFAzT6wLHQ5PvAGXjm_Dyl8o8bR7PhfvNcOYqPu5a3TSsHoqalybJkExrwuImxtl4ItZGGNoxWarlK0qBR_Mw9IaUQ6ZDtJtSYXminRBPgAkLuFEooJUMk1zNLW0aSbMkRpzzjmPxQ?key=0xxaWLJ99kSZ7khgN95IgUYB | **CNC VERTICAL MACHINING CENTER**  **Name of the equipment:**  CNC VERTICAL MACHINING CENTER  **Make & Model:**  Agni BMV45 TC24 4-axis vertical machining centre  **I-Stem Registration ID-**  **3224889**    **Category of Instrument**  Advanced Manufacturing  **Types of Analysis / Testing**  Machining  **Application:**   * Prototyping & Product Development * Precision Component Manufacturing   **Description of Instrument**   CNC machining of complex geometries using codes written explicitly or generated by using Master cam software. |

**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/24889/CNC-Vertical-Machining-Centre) | **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) |

**Contact Details**

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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:**  Mr. Unni Krishnan(TA )  kishan@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**   * Vertical Spindle Orientation * Automatic Tool Changer (ATC) – Allows for quick tool swaps (typically 16 to 30+ tools). * Rotary Table (4th Axis Option) – Enables indexing for complex geometries. | **Unique features/Measurement capabilities, if any**   * Multi-Axis Capabilities (Beyond 3-Axis) * High-Speed Machining (HSM) Capabilities * Enhanced Chip & Coolant Management |
| **Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)**   * Three axes XYZ travel (X – 600mm, Y – 450mm, Z – 500mm) * Clamping area 450 x 900 mm2 * Position accuracy +/- 0.005mm * Max. Tool diameter 75 mm * Max. Tool length 250 mm | **Measurement/Sample specifications:**  Metallic/composite/alloys etc |

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

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| * Quantity: * Sample Type: Metallic/composite/alloys etc * Pre-preparation: * 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/hour | 250 + 18%GST  Rs. 295 | 250 + 18%GST  Rs. 295 | 250 + 18%GST  Rs. 295 |