**HIGH SPEED TEMPERATURE DATA ACQUISITION SYSTEM**

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|  | **Name of the equipment:**  High speed temperature data acquisition system  **Make & Model:**  National Instruments,USA  NI CDAQ 9212  **I-Stem Registration ID-**    **Category of Instrument**  Thermal Systems Monitoring  **Types of Analysis / Testing**  Thermal Testing in R&D (Automotive, Aerospace, Electronics)  **Application:**  used for precise and high-speed temperature monitoring in applications such as battery testing, environmental chambers, industrial process control, and thermal profiling.  **Description of Instrument**  An 8-channel, high-accuracy, 24-bit thermocouple input module designed for high-speed temperature data acquisition in industrial and laboratory environments. |

**Booking Details**

**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 | **Booking available for**  Internal and External Both  **Requisition form for**  Internal  External |

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**Features, Working Principle and Specifications**

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| **Number of channels** | **8 isolated thermocouple channels** |
| **ADC resolution** | 24 bits |
| **Type of ADC** | Delta-Sigma |
| **Sampling mode** | Simultaneous |
| **Voltage measurement range** | ±78.125 mV |
| **Temperature measurement ranges** | Works over temperature ranges defined by NIST (J, K, T, E, N, B, R, and S thermocouple types) |
| **Measurement sensitivity** | For k-type thermocouple 0.05oC |
| **Measurement Accuracy** | Isothermal terminal block up to 0.29 °C |
| **Noise rejection** | 50 Hz/60 Hz |
| **Maximum sample rate** | 95S/s/ch |
| **Control Mode** | PC Based -Dell Make |

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

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| **Internal** | **External Academic Institutes** | **National R&D Lab** | **Industry** |
| 100/- per hour | 300/- per hour + GST | 300/- per hour + GST | 300/- per hour + GST |