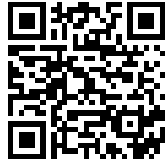




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SS-5/2025-2026 CNC Programming and Operation 29-12-2025 to 02-01-2026 NITTTR Bhopal



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Rationale

As advanced manufacturing techniques are becoming common in various industries, Computer Numerical Control (CNC) technology plays a vital role in achieving higher precision, stability and productivity. Engineering institutes must equip their laboratories and workshops with CNC machines to make their students/pass-outs industry-ready and provide them with practical experience. The effectiveness of this training largely depends on the skills of the technical support staff of engineering institutes. These individuals are responsible for machine setup, programming, operation, maintenance and assisting faculty and students during practical sessions.

This one-week training program on "CNC Programming and Operation" is designed to equip technicians with the foundational knowledge and practical skills necessary for CNC programming and operation. The goal is to enhance their competence and safety awareness, enabling them to support and improve academic and project-based activities more

Programme Outcomes

Participants will be able to-

- explain the CNC machines, their components, working principles, and field applications.
- write CNC programming (G-code and M-code) for basic turning and milling operations.
- create a CNC program based on the given drawing or component.
- operate the given CNC machine using suitable parameters effectively.

Programme Content

Basics of CNC Machine, Components of CNC Systems, and configuration, CNC controllers, Tooling for CNC Machines, Part Programming, Programming Features, offline control pads, generation of tool path, operations of cnc machines and maintenance aspects

Target Group

Technical Staff

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