

Title of the Course	Mastering Linux for Engineering Applications (National)
Operational Plan No	CSE-01 Contact Mode
Dates and Venue	25 – 29 May 2026; NITTTR, Chandigarh
Course Contents	<ul style="list-style-type: none"> • Foundations of Linux Operating Systems for Engineering Applications • Virtualization and Linux Installation: Environment Setup for Engineering Applications • Containerization and Application Deployment using Docker in Linux • Linux Internals, Commands, and File System Permissions • Python Programming for Linux-Based Engineering Applications • Version Control for Engineering and Research Projects using Git and GitHub • Web Server Configuration and Virtual Hosting in Linux Environments • Implementation of SSL/TLS Security for Web Servers in Linux • Orchestrating the Application Ecosystem with Kubernetes in Linux • Shell Scripting and Automation using Bash for Engineering Workflows • Linux on a Raspberry Pi device for Engineering and Embedded System Applications
Course Outcomes:	<p>Participants will be able to:</p> <ul style="list-style-type: none"> • Apply Linux fundamentals for engineering, research, and development environments. • Develop shell scripts to automate engineering workflows and improve system efficiency. • Implement containerization and deploy applications using Docker in Linux environments. • Configure and manage web servers, virtual hosting, and implement secure communication using SSL/TLS. • Develop Python-based solutions for engineering applications in Linux environments.
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