

Title of the Course	Open Source Technologies for Engineering Applications (National)
Operational Plan No	CSE-02 Contact Mode (Offline)
Dates and Venue	20 -24 July 2026; NITTTR, Chandigarh
Course Objectives	The programme is aimed at equipping faculty members and engineering professionals with comprehensive knowledge and practical skills in Open Source environments to support modern engineering applications, research, and development workflows.
Course Contents	<ul style="list-style-type: none"> • Foundations of Open Source Technologies for Engineering Applications • Python Programming with Open Source Ecosystem for Engineering Solutions • Open Source Statistical Tools for Data Analysis and Engineering Research • Open Source Frameworks for Computer Vision and Image Processing • Data Visualization and Machine Learning using Open Source Tool Orange • Open Source Software for Engineering Research and Innovation • Open Source Platforms for Scientific and Technical Publishing • Open Source Scientific and Technical Publishing using Quarto • Open Source Artificial Intelligence Tools for Engineering Applications • Open Source Tools for Enhancing Teaching and Research in Engineering • Design and Development of AI Agents using Open Source Technologies • Development of Interactive Engineering Dashboards using Open Source Tools • Containerization and Deployment using Docker for Engineering Applications • Open Source U-Net for Engineering Applications • Federated Learning using Open Source Frameworks for Distributed Systems
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