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A Report on Six-day Skill Development Program on "NX CAD"
Organized by Skill Development Cell
In association with Department of Mechanical Engineering
from 05.01.2026 to 10.01.2026

Report Submitted by: Mr. P. Mohammed Rizwan Ali, Assistant Professor, Department of Mechanical Engineering.
Event Coordinators: Mr. P. Mohammed Rizwan Ali, Assistant Professor, Department of Mechanical Engineering, Dr. A. Pruthvi Deep, Assistant Professor, Department of Mechanical Engineering
Resource Person Details: Mr. Kumar Mayank Priyadarshi, Aylin Technologies Private Limited, Delhi
Venue: EB-019 (Siemens Lab).
Total Participants: 65 students from the Department of ME
Mode of Conduct: Offline
Report Received on 27.01.2026.

The Skill Development Cell, Madanapalle Institute of Technology and Science-Deemed to be University, Andhra Pradesh, Madanapalle, in association with the Department of Mechanical Engineering, MITS, Madanapalle, organized a Six-day skill development program on "NX CAD" from Jan 05, 2026, to Jan 10, 2026. A total of 65 students participated in this program, making the event a success.

Dr. S. Baskaran, Associate Professor and Head of the Department of Mechanical Engineering, participated in the inaugural function. Mr. P.MD. Rizwan Ali, Asst. Prof./ ME delivered the Welcome Address, followed by Dr. S. Baskaran, who welcomed the resource person and emphasized the importance of the training program. Dr. Siviah P, Associate dean, R&D, Dr. Praveen Kumar B, Asst. Prof. / ME, Participated in the inaugural Program.

Objectives:

The objectives of the Skill Development Program were:

- To introduce students to the fundamentals of **NX-CAD** and its role in modern mechanical design and manufacturing industries.
- To provide **hands-on training** in computer-aided design using industry-standard NX-CAD software.
- To bridge the gap between **theoretical knowledge and practical industrial applications** of CAD tools**.**
- To improve students' **design efficiency, accuracy, and problem-solving skills**.
- To increase students' **industry readiness and employability** by exposing them to real-world CAD workflows.

Overview of SDP:

During the program, participants were introduced to the **NX-CAD interface, modeling environment, and design workflow**, which helped them become familiar with the software architecture and navigation. Emphasis was placed on understanding **design intent, accuracy, and best modeling practices**, ensuring that students developed models suitable for real-world engineering applications. The **offline mode of training** enabled continuous interaction between the resource person and participants, fostering an effective learning environment.
The SDP encouraged **active student participation** through practice-oriented sessions, where learners worked directly on the software to develop design models. This approach helped students gain confidence in using NX-CAD tools and reinforced their understanding of CAD concepts through application-based learning. The resource person addressed practical challenges faced during modeling and explained solutions commonly adopted in industry.
In addition to technical training, the program highlighted the **importance of CAD tools in modern product development cycles**, including design optimization, manufacturability, and documentation. Participants were exposed to professional workflows that bridge the gap between **academic curriculum and industrial requirements**, thereby enhancing their readiness for internships, projects, and future employment.

Overall, the Skill Development Program served as a valuable platform for students to **strengthen their technical foundation, improve practical design skills, and gain insight into industry-oriented CAD practices**. The workshop successfully met its objectives by creating a hands-on learning experience that contributed to the students' academic growth and professional development

Outcome of SDP:

By the end of the program, the students were able to:

1. **Remember** the fundamental concepts, terminology, and interface elements of **NX-CAD** used in mechanical design.
2. **Understand t**he principles of computer-aided design, modeling workflow, and best practices followed in professional NX-CAD environments.
3. **Apply** NX-CAD tools and commands to create **2D sketches and 3D parametric models** for mechanical components.
4. **Analyse the** Design intent, model accuracy, and feature relationships to modify and optimize CAD models effectively.
5. **Evaluate t**he suitability of NX-CAD modeling approaches for **real-world engineering and manufacturing applications**, enhancing industry readiness.

We sincerely thank Dr. V.B. Thurai Raaj, Coordinator – Skill Development Cell & SPOC, APSSDC t-SDI, and Dr. S. Baskaran, HOD of Mechanical Engineering, for their guidance, support, and encouragement throughout the program. We also extend our gratitude to the Management for their constant support in making this event a success.