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A Report on six-day skill development program on "Architectural Modelling Using REVIT" Organized by Skill Development Cell in association with Department of Civil Engineering from 27.10.2025 to 01.11.2025

Report Submitted by: Dr. V.B. Thurai Raaj, Assistant Professor in EEE, Coordinator-Skill Development Cell & SPOC, APSSDC t-SDI.

Event Coordinator: Mrs. Kandukuri Anitha, Assistant Professor, & Co-Coordinator, Skill Development Cell, Department of Civil Engineering; Mr. Veeresh B, Assistant Professor, Department of Civil Engineering.
Venue: Siemens Computer Lab
Resource Person Details: Mr. Vadde Bramhesh, Executive Technical Programmer, APSSDC, Govt. of AP, Vijayawada.
Total Participants: 64 -Students
Mode of Conduct: Offline
Report Received on 18.11.2025.

The Skill Development Cell, Madanapalle Institute of Technology and Science, Madanapalle, Andhra Pradesh, in association with the Department of Civil Engineering, MITS, Madanapalle, organized a six-day skill development program on "**REVIT ARCHITECTURE**" from October 27, 2025, to November 1, 2025. A total of 64 participants took part in this program, making the event a resounding success.

A summary of the skill development program is as follows:
Mrs. Kandukuri Anitha, Assistant Professor, Department of Civil Engineering, delivered the welcome address of the event. Dr. V. B. Thurai Raaj, Assistant Professor in EEE & SPOC–APSSDC t-SDI, introduced the resource person to the participants. Dr. Dipankar Roy, Professor and Dean – School of Engineering, and Dr. N. Vijayakumar, Assistant Professor & HoD, participated in the inaugural function. During his address, **Dr. Dipankar Roy motivated the students to actively participate and concentrate throughout the six-day training program on Revit Architecture. He emphasized the importance of developing practical design skills and understanding modern architectural tools to enhance their professional growth and employability.**

Dr. N. Vijayakumar, Head of the Department, Department of Civil Engineering, highlighted the significance of the six-day training program on **Revit Architecture**, explaining that it is a powerful Building Information Modelling (BIM) software widely used in the design and construction industry. He also mentioned that mastering Revit helps students enhance their design visualization, coordination, and drafting skills, which are essential for modern civil engineers.
Dr. V. B. Thurai Raaj, Assistant Professor in EEE & SPOC–APSSDC t-SDI**, briefed the participants about the objectives and scope of the six-day training program.**
A total of **64 second-year students and three faculty members** from the Department of Civil Engineering participated in this six-day hands-on training program.

Training Sessions Overview:

The program spanned six days, divided into daily Forenoon and afternoon sessions.

- **Morning Schedule:** 09:10 AM – 12:10 PM
- **Afternoon Schedule:** 1:00 PM – 5:00 PM

DAY 1 [27.10.2025 FN]

The Training session started at 10.00 AM and the following topics were interacted with students in FN Session to update their basic skill sets to meet the corporate requirements.

1. Introduction to BIM
2. Introduction to Revit Architecture Software
3. Advantages of BIM and Various Phases used in BIM
4. Extension of File the Revit
5. Graphical User Interface of the Revit.
6. Disciplines in Revit

DAY 1 [27.10.2025 AN]

The Training session started at 1.30 PM in AN and the following topics mentioned below were learnt by students and the software plans and drawing tools were practiced by them.

1. Students learned about the Project file and family files.
2. Properties palette and Project Browser
3. Drawing Tools on the Walls (line, rectangle, circles, polygon)
4. Shortcut Keys on the Revit
5. Practice on the Plans by Using Wall Centre line Method.

DAY 2 [28.10.2025 FN]

The Training session started at 9.30 AM and the following topics were interacted with students in FN Session to update their basic skill sets to meet the corporate requirements.

1. Modifying Wall
2. Duplication of Walls and Doors, Windows
3. Components Placing
4. Material Creation of the Walls (plastering Materials)
5. Wall Opening in Revit Placing of the Doors and windows from the Load Family Files
6. Find out Dimensions by using Annotation Tab.

DAY 2 [28.10.2025 AN]

The Training session started at 1.30 PM in AN and the following topics mentioned below were learnt by students and the software plans and drawing tools were practiced by them.

1. Profile Editing of Walls
2. Creation of the Celling Plans Views
3. Editing and Design profile of the Celling Plans
4. Creating Section Views

DAY 3 [29.10.2025 FN]

The Training session started at 9.30 AM and the following topics were interacted with students in FN Session to update their basic skill sets to meet the corporate requirements.

1. Modify Tools
2. Align, Move, Copy, Rotate, Scale, Commands
3. Trim /Extend to Corners, Single Elements, Multiple Elements
4. Profile Editing Floors

DAY 3 [29.10.2025 AN]
The Training session started at 1.30 PM in AN and the following topics mentioned below were learnt by students and the software plans and drawing tools were practiced by them.

1. Creation of The Roof
2. Types of Roofs (Hip roof, Gamble, Two-Sided Slope, Shade Roof)
3. Roof By Soffit, Fasica, Gutter
4. Ramp Creation By using Level Creation
5. Creation of the Level

DAY 4 [30.10.2025 FN]
The Training session started at 9.30 AM and the following topics were interacted with students in FN Session to update their basic skill sets to meet the corporate requirements.

1. Levels Creation
2. Ramp Creation
3. Stair Creation
4. Material Creations

DAY 4 [30.10.2025 AN]
The Training session started at 1.30 PM in AN and the following topics mentioned below were learnt by students and the software plans and drawing tools were practiced by them.

1. Copy-Paste Method
2. Parapet Wall Creation and Profile Editing
3. Annotate Tab
4. Legend Views
5. Room and Area, Volumes

DAY 5 [31.10.2025 FN]
The Training session started at 9.30 AM and the following topics were interacted with students in FN Session to update their basic skill sets to meet the corporate requirements.

1. Creation and Modification of Building Components
2. Application of Materials and Textures
3. Lighting and Shadow Effects in Rendering
4. Linking CAD Files to Revit Environment

DAY 5 [31.10.2025 AN]
The Training session started at 1.30 PM in AN and the following topics mentioned below were learnt by students and the software plans and drawing tools were practiced by them.

1. Annotation and Dimensioning Techniques
2. Detail Views and Section Creation
3. Title Block and Sheet Customisation
4. Project Review and Documentation in Revit

DAY 6 [01.11.2025 FN]
The Training session started at 9.30 AM and the following topics were interacted with students in FN Session to update their basic skill sets to meet the corporate requirements.

5. Model Creations
6. Extrusion of the Models.
7. Rendering.
8. Download Bim Objects to Revit

DAY 6 [01.11.2025 AN]
The Training session started at 1.30 PM in AN and the following topics mentioned below were learnt by students and the software plans and drawing tools were practiced by them.

1. Schedules and Quantities
2. Sheets Creation
3. Walkthrough
4. Top surface creation in Revit

Outcomes of the Event:

After successfully completing the Five-Day Skill Development Training Program on “Architectural Modelling Using Revit”, the participants were able to:

1. **Develop 2D and 3D Architectural Elements -** Create floor plans, elevations, sections, and realistic 3D models using Revit Architecture.
2. **Collaborate and Coordinate Effectively -** Work within a shared project environment, manage design changes, and ensure consistency across views and disciplines.
3. **Design and Present Complete Building Projects -** Plan, model, and visualise new construction projects using industry-standard BIM tools and workflows.
4. **Enhance Employability Skills -** Gain hands-on experience and confidence to face technical interviews and pursue core engineering and architectural design roles.
5. **Adopt BIM Practices for Professional Growth -** Understand the fundamentals of Building Information Modelling (BIM) for efficient, accurate, and sustainable design development.

Program Outcomes (POs) Covered:

1. **PO1 – Engineering Knowledge:** Apply the knowledge of engineering fundamentals and software tools to develop 2D and 3D architectural models.
2. **PO2 – Problem Analysis:** Identify, formulate, and analyze design and modeling requirements in architectural projects using BIM-based approaches.
3. **PO3 – Design/Development of Solutions:** Design efficient and sustainable architectural layouts and building models that satisfy both functional and aesthetic requirements.
4. **PO5 – Modern Tool Usage:** Create, modify, and manage architectural components using Revit Architecture and related digital design tools.
5. **PO9 – Individual and Team Work:** Function effectively as an individual and as a member in multidisciplinary teams to coordinate design elements within a shared project environment.
6. **PO10 – Communication:** Prepare and present architectural drawings, 3D visualisations, and construction documentation effectively using Revit outputs.
7. **PO12 – Life-long Learning:** Recognize the need for continuous learning and skill enhancement in modern software tools for sustainable and smart building design.

As an SDC coordinator, I expressed my gratitude to the management and Vice Chancellor, Dr. C. Yuvaraj, of MITS Deemed to be University, for their ongoing support. I thank our Dr. P. Ramanathan, Principal, for granting permission and providing financial support to organize this program. I appreciate Dr. C. Kamal Basha, Professor and Vice Principal of Administration, for offering necessary support promptly. I also thank Professor Dipankar Roy and the School of Engineering for his continuous guidance across all aspects. I am grateful to Dr. N. Vijayakumar, Head of the Department of Civil Engineering, for providing me with this excellent opportunity and constant encouragement to successfully coordinate this program. I thank the event coordinators, Mrs. Kandukuri Anitha and Mr. Veeresh B, Assistant Professors in the Department of Civil Engineering. Additionally, I sincerely appreciate Mr. Bramhesh, the resource person for this event, and the entire SDC team for their support.