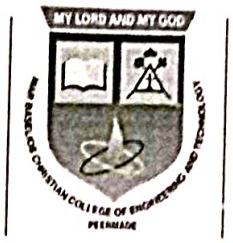


MAR BASELIOS CHRISTIAN COLLEGE OF ENGINEERING AND TECHNOLOGY, PEERMADE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

REPORT ON

AUTOCAD WORKSHOP

ABOUT THE SESSION

Organized By: Electrical and Electronics Department

Date: 21-February-2023

Venue: ELECTRICAL LAB BLOCK

Attendees: EEE Students

REPORT ON AUTOCAD

Objective of the workshop:

Equipping participants with practical skills to create 2D drawings, including architectural plans, mechanical designs, and electrical schematics. Enhancing participants' proficiency in using AutoCAD tools, commands, and shortcuts for efficient and accurate drafting.

Venue: Power system lab of Electrical and Electronics Department, MBCCET

Coordinatedby:MrRakesh Raju
CADD Centre,Pala

Noofparticipants=15

Coverage of workshop:

"Fiveday's workshop on AutoCAD" was organized by Mar Baselios Christian College of Engineering & Technology, Kuttikkanam, Peermade on 21st February 2023. Around 15 EEE students attended the workshop. The session was instructed by Mr Rakesh Raju from CAD Centre, Pala. The course content is as follows:

A leading computer-aided design (CAD) software widely used in various industries such as architecture, engineering, and construction. Throughout the five-day workshop, participants delved into the fundamental concepts and practical applications of AutoCAD under the guidance of experienced instructor.

DAY:1

The workshop commenced at 9:00 AM and was inaugurated by HOD Prof. Resmara S., with class coordinators and faculty members present at the event.

The first session introduced participants to AutoCAD, focusing on the software interface, tools, and basic functionalities. Attendees were familiarized with the concept of computer-aided design (CAD) and its significance in various industries.

Topics covered included:

- AutoCAD workspace overview: ribbon, command line, and drawing area.
- Navigation techniques: zoom, pan, and rotate.
- Basic drawing commands: Line, Circle, and Rectangle.
- Introduction to modification tools for object editing.

Hands-on exercises allowed participants to practice using fundamental tools and commands. By the end of the day, participants were confident in navigating the interface and creating simple geometric shapes.

DAY:2

The second day focused on enhancing participants' skills in drawing with precision and efficiency. Participants explored:

- Snap tools, grids, and coordinate systems.
- Inputting exact dimensions using absolute and relative coordinates.
- Polar Tracking and Object Snap Tracking.

They also learned about:

- Layer management: creating, organizing, and assigning properties to layers.
- Editing tools: Copy, Mirror, and Array.
- Practical exercises reinforced these concepts, helping participants improve both speed and accuracy in drafting.

- Additionally, participants practiced creating and managing layers to maintain drawing clarity and organization.

DAY:3

Day three focused on annotation and dimensioning:

- Adding text, labels, and annotations using various text styles and formatting tools.
- Applying dimensioning techniques: linear, angular, and radial dimensions.
- Ensuring industry-standard compliance.

The session concluded with a discussion on best practices in technical documentation, precision in annotations and dimensioning, emphasizing the importance of clear and concise communication in technical drawings.

DAY:4

The fourth day of the workshop participants were introduced to advanced drawing tools and complex shapes in AutoCAD:

- Tools: Polylines, Splines, and Hatch patterns.
- Techniques to create intricate drawings with aesthetic and functional value.

Interactive demonstrations and exercises helped participants gain confidence in using these tools to create more detailed and dynamic designs. Practical exercises and demonstrations facilitated participants understanding and application of advanced drawing tools, empowering them to create more sophisticated and dynamic drawings.

DAY:5

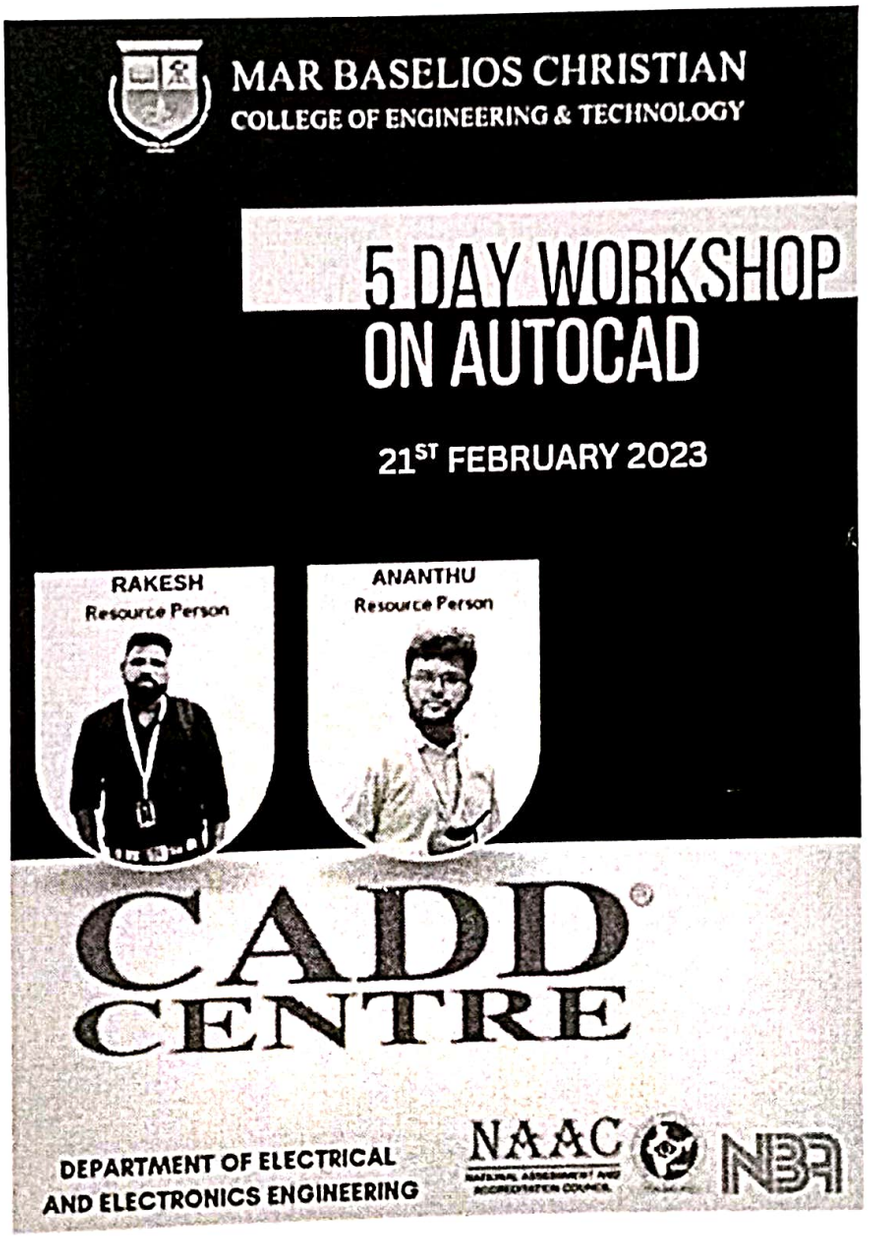
The final day of the workshop focused on customization and productivity tools in AutoCAD:

- Customizing the AutoCAD workspace and tool palettes.

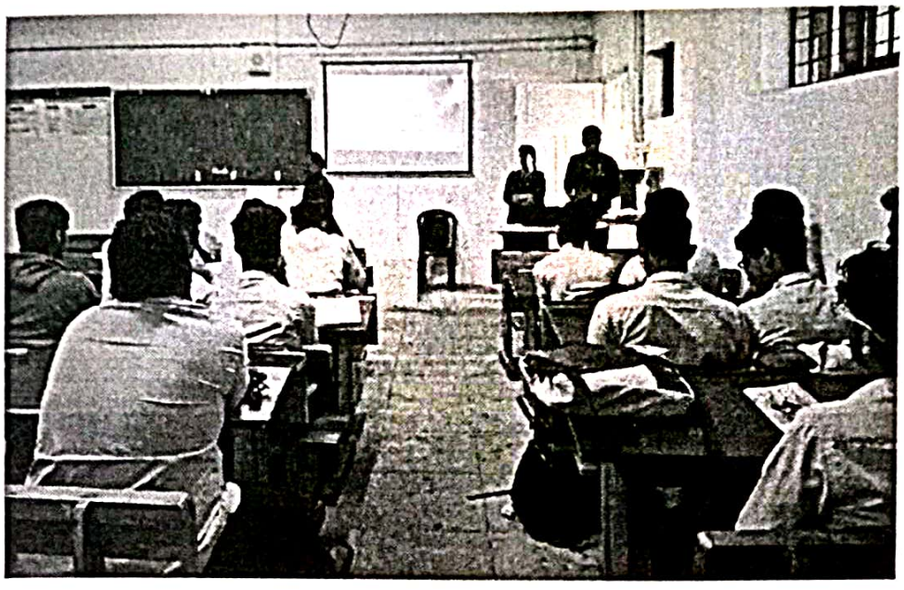
- Creating and managing shortcut keys to enhance workflow efficiency.

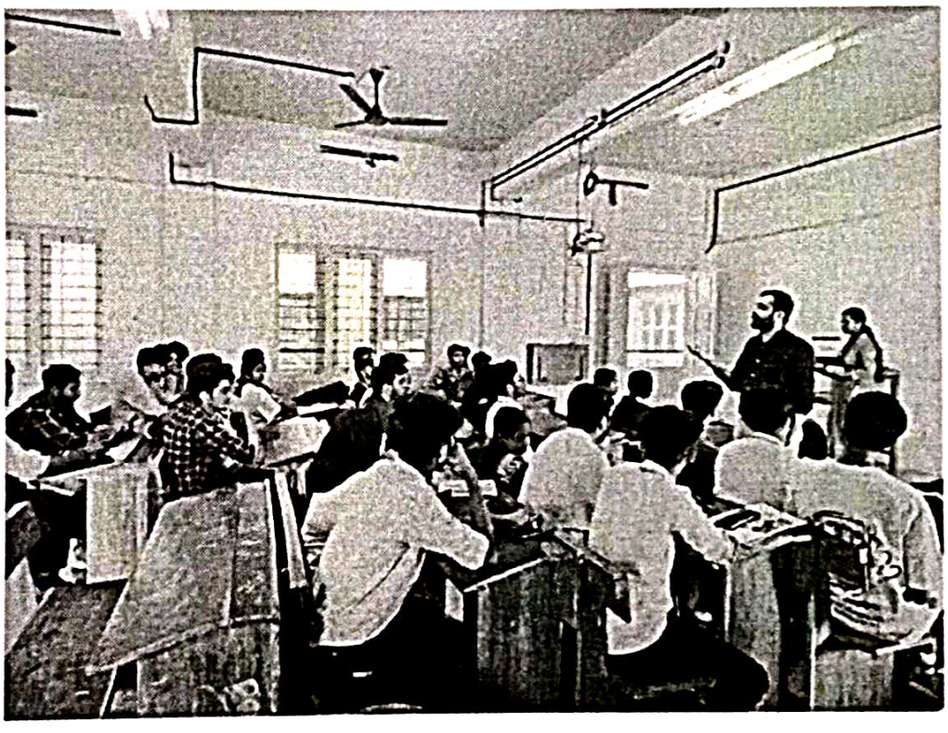
Participants were encouraged to personalize their working environment to suit individual preferences, boosting productivity and comfort in drafting

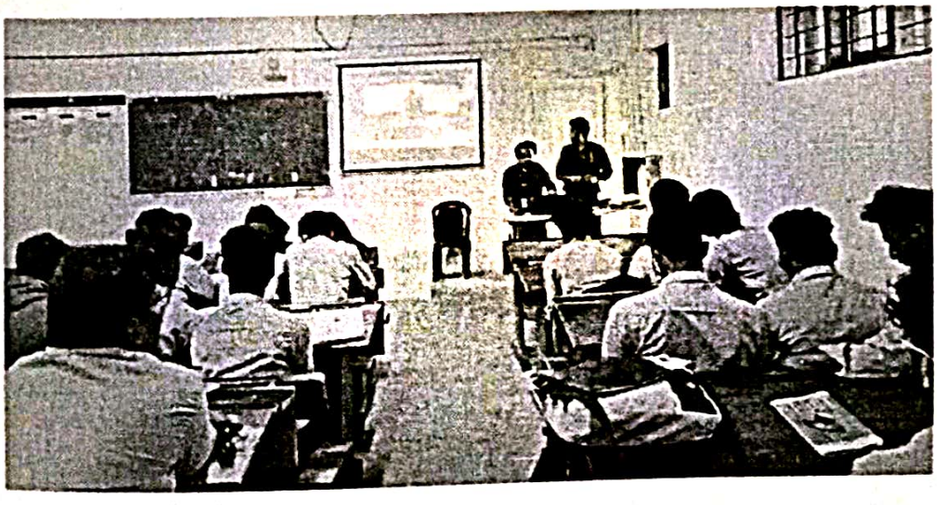
POSTER:



Workshop Glimpses:







JUSTIFICATION WITH PO

PO1 – Engineering Knowledge
Students apply fundamental electrical and engineering concepts to design electrical layouts using AutoCAD.

PO2 – Problem Analysis
Understanding technical drawings and identifying constraints in electrical schematics requires analytical thinking.

PO3 – Design/Development of Solutions
AutoCAD allows students to create and modify electrical system designs and layouts, supporting the development of engineering solutions.

PO5 – Modern Tool Usage
AutoCAD is a modern engineering tool; training enhances student competency in CAD-based electrical design and drafting.

PO10 – Communication
Clear technical drawings and documentation in AutoCAD serve as a visual communication tool in engineering teams.

PO12 – Life-long Learning
Learning AutoCAD equips students with industry-relevant skills, fostering adaptability to new tools and technologies.

PSO JUSTIFICATION

PSO1 – Design, analyze and test components and systems associated with electrical engineering using modern hardware and software tools
AutoCAD directly supports electrical system design, layout planning, and documentation.

PSO2 – Specify and design electronic systems that perform control, analog and digital signal processing functions
AutoCAD helps create precise layouts and wiring diagrams essential in control and signal processing systems.

CONCLUSION:

Thisreport provides a comprehensive summary of the AutoCAD workshop, detailing its objectives, curriculum, methodologies, and outcomes. It highlights the key topics covered in each session and emphasizes the participants' engagement and steady progress throughout the program. The workshop effectively enhanced participants' proficiency in AutoCAD through a balanced blend of theoretical instruction, hands-on exercises, and interactive discussions. Attendees developed skills in drawing and editing techniques, precision drafting, annotation, and advanced features of the software. A collaborative and supportive learning environment encouraged participants to explore, experiment, and solve problems creatively within AutoCAD. Overall, the workshop proved to be a valuable learning experience, equipping students with practical skills applicable to their academic and professional pursuits.

Department of Electrical & Electronics Engineering
MAR BASELIOS CHRISTIAN COLLEGE OF ENGINEERING & TECHNOLOGY, PEERMADE
Pallikunnu PO, 685 531, Kerala, Phone: 04869233571, Mob: 7559933571

Field	Details
Name of Student	Theresa Mol
Roll Number	11
Department	EEE
Semester	S3
Course Name	
Course Code	
Date	

◆ **1. Activity Relevance**

- Was the objective of the gap-filling activity clear and relevant to the course content?
  ☑ Yes ☐ Partially ☐ No
  Comment: _____

◆ **2. Learning Outcomes**

- Which of the following **Course Outcomes (COs)** did the activity help you achieve? (Tick all that apply)

☐ CO1 – Machines, PS, PE, ESD
☐ CO2 –
☐ CO3 –
☐ CO4 –
☐ CO5 –
☐ CO6 –
☐ CO7 –
☐ CO8 –
☐ CO9 –

- How effectively did the activity support the above COs?
  ☑ Highly Effective ☐ Effective ☐ Moderately Effective ☐ Not Effective

◆ **3. Program Outcomes (POs) Mapping**

- To what extent did this activity help improve the following **Program Outcomes**?

PO	Outcome	Rating (✓)
PO1	Engineering knowledge	☑ High ☐ Moderate ☐ Low
PO2	Problem analysis	☑ High ☐ Moderate ☐ Low

PO3	Design/development of solutions	☐ High ☐ Moderate ☐ Low
PO4	Conduct investigations of complex problems	☐ High ☐ Moderate ☐ Low
PO5	Modern tool usage	☑ High ☐ Moderate ☐ Low
PO6	The engineer and society	☐ High ☐ Moderate ☐ Low
PO7	Environment and sustainability	☐ High ☐ Moderate ☐ Low
PO8	Ethics	☐ High ☐ Moderate ☐ Low
PO9	Individual and teamwork	☐ High ☐ Moderate ☐ Low
PO10	Communication	☑ High ☐ Moderate ☐ Low
PO11	Project management and finance	☐ High ☐ Moderate ☐ Low
PO12	Life-long learning	☑ High ☐ Moderate ☐ Low

◆ 4. Difficulty Level

- How would you rate the **difficulty** of the activity?
  ☐ Very Easy ☐ Easy ☐ Moderate ☐ Difficult ☐ Very Difficult

- Reason: _____

◆ 5. Suggestions for Improvement

- What improvements would you suggest for similar activities in the future?
-

◆ 6. Overall Feedback

- Did this activity enhance your understanding of the topic?
  ☐ Yes ☐ Partially ☐ No
- Would you recommend this type of activity for future sessions?
  ☐ Yes ☐ Maybe ☐ No

General Comments:

Theesha md mohanan