

## LEARNING OUTCOMES:

A practical course providing a comprehensive overview of Intellicad with hands-on exercises wherein the student will be able to:

1. Understand basic and fundamental methodologies about ICADD relevant to its useful application in the practice of electrical practitioners in the electrical engineering, design process through drawing enhancement and annotation in basic 3D concepts
2. To be able to disseminate its application through actual hands-on application through proper implementation and execution with the used of software and equipment simulator.



## PAMAV TRAINING INSTITUTE & TECHNOLOGY CENTER

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## COMPUTER AIDED DESIGN (CAD)

- Basics of CAD
- Drawing Exercises
- Creating a template
- Creating a floor plan
- Detailing with dimensions
- Case Studies
- Solid Modeling

### SCHEDULE:

**Duration of class: 32 hours**

**Monday to Thursday, 8:30 to 5:30 p.m.**

**Classes are formed weekly**

## COMPUTER AIDED DESIGN (CAD)

### COURSE BACKGROUND:

This course deals with the simulation and application of Intellicad as an integral part of the electrical power system through the software and drawing enhancements.

### COURSE HIGHLIGHTS:

- Provides a cost effective solution to CAD requirements
- Practical applications for electrical, structural and sanitary plans
- 90% hands on
- Industry based exercises

### COURSE FEE:

- Php 5,400.00 inclusive of snacks, lunch and computer use.

### THE PARTICIPANT WILL RECEIVE:

- Certificate of Completion
- Discount to purchase ICAD software

### WHO SHOULD ATTEND?

- Architecture and Engineering graduates who would like to be able to perform design and drawings using ICAD software
- Electrical Consultants and Designers
- Electrical Engineers in the utilities
- Electrical Engineers and electricians in commercials and industrial maintenance

# COMPUTER AIDED DESIGN (CAD)

## REGISTRATION

### COMPUTER AIDED DESIGN (CAD)

**Schedule:** Monday to Thursday, 8:30AM to 5:30AM

**Venue:** PAMAVTECH, 7F Integrated Professional Office Building  
14 Quezon Avenue Quezon City

**Time:** 8:00 a.m. to 5:00 p.m. on each day

Please fill up and return to fax 740-7602 or [admin@pamavtech.com](mailto:admin@pamavtech.com).

<b>NAME</b> (as you want to appear on certificate. Title, first name, middle initial, last name, suffix)	
<b>DESIGNATION</b>	
<b>COMPANY NAME</b>	
<b>TELEPHONE</b>	<b>LOCAL NUMBER</b>
<b>CELLPHONE</b>	
<b>EMAIL ADDRESS</b>	

#### Payment:

Reservations without payment do not confirm your slot. To confirm your reservation, please pay the course fee of Php 5,400.00 per person thru China Bank (Quezon Avenue branch) Account name PAMAV Training Institute & Technology Center, C/A#: 107-119555-8. Please attach the deposit slip with this form.

#### COURSE OUTLINE

##### DAY 1

##### A. Introduction

a. The students will have an overview about:

- PAMAVTECH
- CAD and job opportunities
- The Instructor

b. The instructor will conduct a quick preview on the following:

- What will they learn
- How will they learn
- What is IntelliCAD
- The comparison of Intellicad to:

- Other CAD software
- Manual Drafting

##### B. Basics of CAD

a. The IntelliCAD icon

b. Starting a Project

- How to create an entirely new drawing
- How to start a project using an existing .dwg file
- Standard Operating Procedures:

1. Setting up the drawing Limits
2. Setting up the Text styles
3. Creating layers
4. Setting up the Dimension style
5. Saving file

c. The IntelliCAD Environment (your drafting table)

- Components of the IntelliCAD environment

d. Creating rectangle, polygon, lines, arc, and ellipse

##### DAY 2

##### C. Basic Drawing Exercises

a. Practice trimming and extending

b. Practice Offset and Mirror

c. Practice Rectangle and Polygon

d. Practice Coordinates, polar and direct distance system

e. Practice Circle and arcs

##### D. Creating a Template as Block (Choose only one specialization)

Electrical Symbols

- Circuit Breaker
- Lighting Fixtures
- Power outlet
- Homerun
- Circuit symbol
- Meter base
- Special lighting fixtures

Architectural components

- Windows
- Doors
- Furniture
- Fixtures
- Appliances
- Trees

Sanitary Symbols

- Valve
- Accessories
- Pipes
- Others

Structural Detail

- Conc. Column/Footing section
- Conc. Wall Footing section

##### DAY 3

##### E. Creating Floor Plan or layouts For electrical, structural, and sanitary plans

Procedures on How to create a Plan or a Layout:

- Architectural Plans

1. S.O.P
2. Drawing of the property line by coordinates and polar coordinates

Procedures on How to create a Plan or a Layout:

- Architectural Plans

1. S.O.P
2. Drawing of the property line by coordinates and polar coordinates (using geometric site survey inputs)
3. Creating Grids and Guidelines
4. Locating Columns
5. Creating walls
6. Inserting blocks and locating templates, doors, windows, furniture and fixtures, trees, etc.
7. Rendering Hatches on wall, sections and floor finishes

- Electrical (Power and Lighting Layout) and Sanitary Layout (DWV and Water Supply Layout)

1. S.O.P
2. Creating Grids and guidelines
3. Inserting Blocks
4. Scaling Blocks
5. Locating Blocks and templates
6. Connecting circuits of fixture or outlet
7. Locating Homeruns
8. Creating other drawing components

- Structural Plan (Foundation Plan)

1. S.O.P
2. Creating Guidelines and Grids
3. Locating Grid labels
4. Creating Foundation lines
5. Changing Line types
6. Inserting Blocks
7. Creating other drawing components

##### F. Detailing with dimensions and text, scaling and use of External References

##### DAY 4

##### G. Case Study Part 1 (Individual)

- Site Development Plan
- Load schedule and Single Line or One line diagram
- Detail of Septic Tank and catch basin
- Roof framing plan

##### H. Case Study Part 2 (Group) - As built plans

##### I. Introduction to Solid Modeling

- Using solid modeling tools and Icons
- Rendering Solids

##### J. Final Assessment

##### K. Printing of Works

##### ASSESSMENT METHODS:

- Written (theoretical and applications questions)
- Practical (competency assessments, knowing how to start testing, using a test instrument)
- Direct observation (supervised by an expert in field of testing power transformer)
- Interview (verification from participants understanding of testing procedures)

##### METHODOLOGY

- Hands-On