## Expert Training on CAD/CAE/CAM/PPM software tools

Bharatiya Vidya Bhavan's
Sardar Patel College of Engineering (S.P.C.E)
(Government Aided Autonomous Institute)

www.spce.ac.in

CAD/CAE/CAM/PPM
Training Provider

www.cadpmtraining.com

Mechanical Engineering Department of Sardar Patel College of Engineering (S.P.C.E) in collaboration with CADD Centre, Andheri announce batches for CAD/CAE/CAM/PPM training for the following courses:

| CAD | | CAE | CAM | PPM |
|---|---|---|---|---|
| AutoCAD | CATIA | ANSYS | NX CAM | MS Project |
| SolidWorks | NX CAD | | | Primavera |

Sardar Patel College of Engineering (S.P.C.E) is a well reputed Government Aided Autonomous Degree College affiliated to University of Mumbai, established in 1962, situated at Munshi Nagar, Andheri (West), Mumbai. S.P.C.E. is a progressive institute with Engineering degree programs in Mechanical, Civil & electrical streams & conducts need based continuing education programs and consultancy activities in various areas.

CADD Centre located at Andheri (East & West), Borivali & Mira Road, Mumbai offers training on CAD / CAE / CAM / Project Management industry-specific courses. Specialized in software related to the Engineering, Architectural, Interior design and Project Management fields, the training has immediate relevance and productivity gain. CADD Centre provides World Class Courseware & Internationally Recognised Certification.

| Training Calendar | | |
|---|---|---|
| **Course Name** | **Start Date** | **End date** |
| AutoCAD | 01-08-2016 | 12-08-2016 |
| CATIA | 23-07-2016 | 05-08-2016 |
| NX CAD | 08-08-2016 | 24-08-2016 |
| SolidWorks | 12-09-2016 | 27-09-2016 |
| NX CAM | 29-08-2016 | 06-09-2016 |
| ANSYS | 29-09-2016 | 14-10-2016 |
| MS Project | 17-10-2016 | 25-10-2016 |
| Primavera | 31-10-2016 | 08-11-2016 |
| Tentative timing for the batch is 9am to 2pm | | |

For further details & to register for the above courses you can contact our executive on **9930943461**

**Note:** Timings maybe adjusted based on requirements of participants.

**CAD: Computer-Aided-Design** is the use of computer systems to assist in the creation, modification, and optimization of design. CAD software tools can design a product and assist documentation of the design phase of the engineering process. CAD may facilitate the manufacturing process by transferring detailed diagrams of product's materials, processes, tolerances, and dimensions. It can be used to produce either 2D or 3D diagrams, which can then be rotated to be viewed from any angle, even from the inside looking out.

**CAE: Computer-Aided-Engineering** tools are the broad usage of computer software to aid in engineering analysis tasks. Engineering software programs includes finite element analysis (FEA), computational fluid dynamics (CFD), multibody dynamics (MDB), and optimization. CAE tools are being used, for example, to analyze the robustness and performance of components and assemblies. The term encompasses simulation, validation, and optimization of products and manufacturing tools & support design teams in decision making.


**PPM** - **Project Planning & Management** enables us to innovate and plan strategically to achieve the objectives. Projects have activities to be completed on time and within budget. Project Managers need to plan and manage all the work part of a project in the most efficient and effective manner. Knowledge and application of the popular Project Management software like Microsoft Project & Primavera could ensure successful completion of your projects with the desired results.

## Course: AutoCAD

- Introduction
- File management
- Orthographic drawings
- View management
- Display management
- Layer management
- Selection methods
- Parametric drawings
- Symbol creation using block
- BOM / Joinery details creation
- Isometric drawings
- Perspective drawings
- Annotations and Dimensions
- Team work
- Layout management
- Publish and Plot

Courseware Issued

- Reference Guide
- Project Workbook

## Course: CATIA

- CATIA user interface
- Creating and editing sketches
- Creating sketch based features
- Creating transformation features
- Creating dress up features
- Creating advanced replication tools
- Editing parts in assembly
- Creating surface features
- Generative Sheetmetal design
- Drawing view generation
- Bill of materials, balloons
- Finalizing the drawing and printing
- Dress up on 2D Views
- Real time rendering

Courseware Issued

- Reference Guide
- Project Workbook

## Course: NX CAD

- User interface
- Sketcher essentials & Constraining sketches
- Datums
- Creating part features & Editing parts
- Creating fundamental curves & Editing curves
- Editing freeform features
- Basic assembly concepts & Creating assemblies
- Positioning assembly components
- Assembly revisions and component replacements, Assembly sequencing
- Assemblies - clearance and analysis
- Deformable components
- Part families
- Introduction to drafting
- Drawings and views
- Creating dimensions, notes and labels
- Plotting drawings
- GD&T

Courseware Issued

- Reference Guide
- Project Workbook

## Course: NX CAM

- The operation navigator
- Manufacturing operations and postprocessing
- Wizards and shop documentation
- Planar milling – Introduction & profiling
- Engrave text
- Face milling, Cavity milling, Z-level milling, Thread milling & Area milling
- Radial cutting & Surface area cutting
- Engraving
- Contour profiling & Common parameters
- Rough and finish turning
- Centerline drilling
- Groove and thread operations
- Multiple spindles and IPW

Courseware Issued

- Reference Guide

## Course: SolidWorks

- Sketcher basics
- 3D sketching
- Part modeling
- Creating reference geometries
- Editing features
- Advanced modeling tools
- Configuration
- Design table/library features
- Import/export of files
- Surface overview
- Bottom-up assembly
- Top-down assembly
- Exploding assemblies
- Simulation/ Detailing
- BOM, balloon tools
- Sheet metal
- PDM Works
- Weldment
- GD&T

Courseware Issued

- Reference Guide
- Project Workbook

## Course: ANSYS

- Introduction to CAE
- General procedure involved in FEA
- GUI of ANSYS Workbench/ANSYS
- Working on a Project
- CAD Modeling using ANSYS
- Defining and Assigning Materials
- Generating the mesh
- Optimising the model to refine mesh
- Working with different boundary conditions
- Surface and Line models
- Static Structural analysis
- Modal Analysis, Buckling Analysis &Thermal Analysis
- Coupled Field (Thermal Stress)
- Post processing

Courseware Issued

- Reference Guide

## Course: MS Project

| | |
|---|---|
| ▪ Setting up Calendars<br>▪ Work Breakdown Structure<br>▪ Scheduling of Activities to find Critical Path: CPM & PDM<br>▪ Assigning Resources to Activities<br>▪ Resource Levelling techniques<br>▪ Cost Estimation & Budgeting<br>▪ Tracking a project progress vs. Baselines | ▪ Earned Value Analysis<br>▪ Reporting & Customization<br>▪ Multiple Projects<br>Courseware Issued<br>▪ Reference Guide<br>▪ Workbook |

## Course: Primavera

| | |
|---|---|
| ▪ Defining Calendars<br>▪ EPS & OBS, Create New Project under the EPS<br>▪ Activities - Definition, sequencing & Estimating duration: CPM, PDM<br>▪ Scheduling the project<br>▪ Work Breakdown Structure<br>▪ Defining constraints & overcoming conflicts<br>▪ Defining & Assigning activity codes<br>▪ Defining and assigning Work products and Documents<br>▪ Defining & assigning Resources<br>▪ Defining & Assigning by Roles | ▪ Estimating the cost of the project<br>▪ Resource Analysis & Leveling<br>▪ Updating the project progress & comparing the actual progress with baseline<br>▪ Earned Value Analysis<br>▪ Tabular & Graphical reports<br>▪ User Defined Fields & Global change<br>Courseware Issued<br>▪ Reference Guide<br>▪ Workbook |