



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

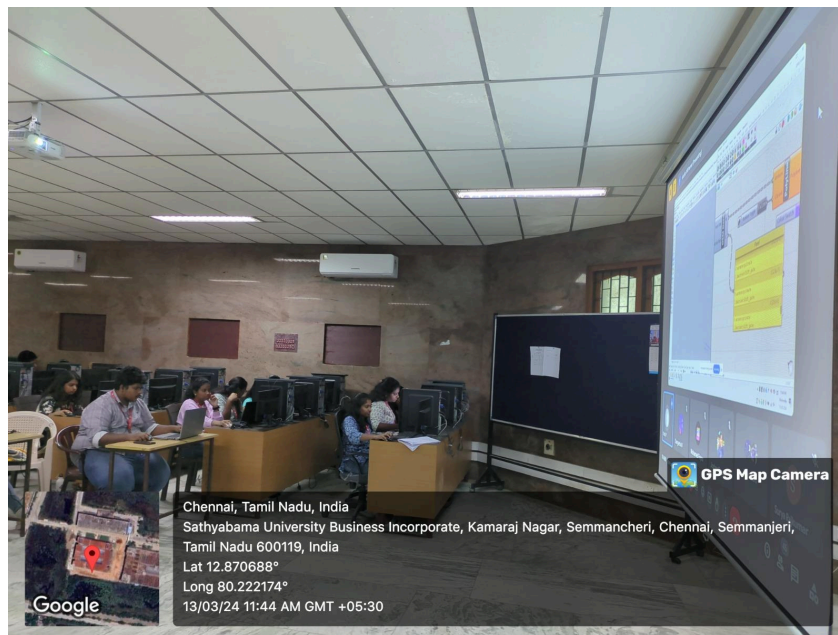
Accredited A++ Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

Criteria 1.3.2 Value Added Courses

1. Rhino - Value Added Course on PARAMETRIC DESIGNS

The Rhino Value Added Course was organized to work on the parametric design as part of the Design studio VI for the batch 2021-2026. Introduction to Rhino software and the development of existing serpentine pavilions are worked out as exercises for the students understanding of the tools and practice in the software. The session continued with the design and development of a seating structure to highlight on the importance of the software and parametric design approach for the output on the dimensions and construction details of the products for its fabrication. Grasshopper scripts are introduced for the design and development of the different kind of parametric designs. Installation of elk for the development of 2d and 3 D maps of various location and output as AutoCAD drawings. Energy simulations are worked out with the ladybug and honeybee plug ins. Students understood on the radiation effects on the buildings and created various parametric design approaches for their facades and massing of the buildings. The workshop outputs are presented in the university viva of their design studio project of mixed use building.





SATHYABAMA
INSTITUTE OF SCIENCE & TECHNOLOGY
SCHOOL OF
BUILDING & ENVIRONMENT

VALUE ADDED COURSE

CHIEF PATRONS

DR. MARIAZEENA JOHNSON
Chancellor

DR. MARIE JOHNSON
President

MR. J. ARUL SELVAN
Vice President

MS. MARIA BERNADETTE TAMILARASI
Vice President

MS. MARIA CATHERINE JAYAPRIYA
Vice President

PATRONS

DR. T. SASIPRABA
Vice Chancellor

CONVENORS

DR. DEVIYANI GANGOPADHYAY
Dean & Professor

DR. EBIN HARRISON
Professor

ORGANIZERS

AR. SURYA RAJKUMAR
Associate Professor

AR. ANITHA MURUGAN
Associate Professor

The School of Building and Environment, Sathyabama Institute of Science & Technology is offering a Value Added Course on

RHINO & GRASSHOPPER SOFTWARE TOOLS

during the month of March 2024

by **Ar. Trinadh P, Ekam BIM Studios**

MODULE 1 - Introduction to Rhino & grasshopper Tools

MODULE 2 - Parametric Design

MODULE 3 - Climate Analysis 1

MODULE 4 - Climate Analysis 2

MODULE 5 - Building Analysis



Ar. Trinadh P



The workshop attendees list

S.NO	Regd No	STUDENT NAME
1	41210001	ABDUL WADOOD
2	41210002	ADELA WEINI SUMAR
3	41210003	ANGELO DAVID
4	41210004	ARTHI
5	41210005	BHAVADHARANI
6	41210006	DHARSHINIE
7	41210007	GIRIDHARAN
8	41210008	HARISH RAGHAVA
9	41210009	HARISH RAGAVENDRA
10	41210010	JAYAPRIYA
11	41210011	JOSHNA SHERIN
12	41210012	JOVITHA MARIYA ROSHIN
13	41210013	JUHEE
14	41210014	JYOTHIKA
15	41210015	KANISHKA
16	41210016	KRUPAKAR
17	41210017	LAVANYA
18	41210018	LEKHA SHREE
19	41210019	LIGESH
20	41210020	MADHUMITHA
21	41210021	MOHAMED FAYAS
22	41210022	MOHAMED UMAR
23	41210023	NAMITHA KANCHARLA
24	41210024	ASHWANTHI
25	41210025	PREETHI
26	41210026	PRIYA DHARSHINI
27	41210027	RITHU VARSHINI
28	41210028	ROAHIT KARAN
29	41210029	SANGEETHA
30	41210030	SARAN
31	41210031	SATHYA NARAYANAN
32	41210032	SNEHA
33	41210033	PRAVALIKA
34	41210034	SOWPARNIKA
35	41210036	SUDHA SHREE
36	41210037	TAMILMARAN
37	41210038	YEETI KEERTHI
38	41210039	YESRIN JULIAS

S. No.	Reg. Number	Student Name
1	41102001	BATRA KANNAALAN R.A
2	41102002	FARAH MOHAMED PEER MOHAMED
3	41102003	JEEVISHRI S
4	41102004	KAVYA B
5	41102005	KURICHETI VENKATA KASIM
6	41102006	LAAVANYA R
7	41102008	NITHIN KESAVAN R
8	41102009	SWETHA R
9	41102010	VARSHINI R



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CERTIFICATE

Value Added Course on
Parametric Designs through a hands-on Training in Rhino Software
Organized by
DEPARTMENT OF ARCHITECTURE
This certificate is proudly awarded to

SUDHA SHREE R

has successfully completed her value added course on **Parametric Designs**
through a hands-on Training in Rhino Software from 07.02.2024 to 27.04.2024 organized by
DEPARTMENT OF ARCHITECTURE,
SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI.



Dr. DEVYANI GANGOPADHYAY,
Dean, School of Building and Environment,
SIST, CHENNAI.



TRINADH KUMAR PYDIPALLY,
Ekam BIM Studios,
Hyderabad.



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This certificate is proudly awarded to

TAMILMARAN R

has successfully completed his value added course on **Parametric Designs**
through a hands-on Training in Rhino Software from 07.02.2024 to 27.04.2024 organized by
DEPARTMENT OF ARCHITECTURE,
SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY, CHENNAI.

Dr. DEVYANI GANGOPADHYAY,
Dean, School of Building and Environment,
SIST, CHENNAI.

TRINADH KUMAR PYDIPALLY,
Ekam BIM Studios,
Hyderabad.

2 . Autodesk Autocad – Value Added Course

The Autodesk Autocad Value Added Course was organized to work on the Architectural design as part of the Design studio VI for the batch 2022-2027.

The workshop attendees list

S. No.	Reg. Number	Student Name
1	42210001	ABINAYA. G
2	42210002	ADELINE RENISHA. R. L
3	42210003	AMEENA FIRDOUSE. M
4	42210004	DARSHAN. S
5	42210005	DEVANAND. S
6	42210006	DHANALAKSHMI. R
7	42210007	DHANU BHARATHI. M
8	42210008	GAJALAKSHMI .G
9	42210009	KAMALA. D
10	42210010	KARTHIKEYAN.K
11	42210011	KAVIN PRASATH. R
12	42210013	LOKESH. S
13	42210014	MAITHREYI. T
14	42210015	NARENDHAR. G
15	42210016	PEARLINDA FERNANDO
16	42210018	PRAGALATHAN. V
17	42210019	RAHUL ALBERT
18	42210020	RAJA PRIYA. V
19	42210021	RIONA JENIT. X
20	42210022	SAKTHI RATHISH RAM. I
21	42210023	SANGAMITHRA. R
22	42210024	SANJAY. S
23	42210025	SARAVANAN.A
24	42210026	SHARON JOSEPH
25	42210028	SRINIDII. A
26	42210029	SRIRAM. G
27	42210030	SUHAS. N
28	42210031	SUJITHA. K
29	42210032	VIBBIN. A. V
30	42210033	VIDULA. F
31	42210034	CHARUMATHI. R
32	42210035	SHARAN KUMAR
33	42210036	SUMI S DAVE
34	42210037	GEDDADA MONIKA SANTOSHI
35	42210038	SUBHASHINI. S



Certificate of Course Completion

Congratulations!

The Autodesk® Authorized Academic Partner course you have completed was designed to meet your learning needs with professional instructors, relevant content, authorized courseware, and ongoing evaluation by Autodesk.

The AAP network helps students and educators achieve excellence in using our software products.

Certificate No. 12KDKDKKDS

KARTHIKEYAN, R.

Name

Autodesk Autocad

Course Title

AutoCAD

Product

Sathyabama Institute Of Science And Technology

Institution:

Amirtha Kateswaran

Instructor

40 hours

Course Duration

KKM SOFT (P) Ltd

Autodesk Authorized Academic Partner



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10-week schedule for an Autodesk AutoCAD course

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

BATCH -2023-2028

Week 1: Introduction to AutoCAD and User Interface

- Overview of AutoCAD and its applications
- Introduction to the user interface and workspace
- Understanding toolbars, menus, and panels
- Basic navigation (zoom, pan)
- **Assignment:** Practice navigating the interface and familiarizing with key commands

Week 2: Basic Drawing Tools

- Introduction to coordinate systems (absolute, relative, polar)
- Basic drawing tools: line, circle, rectangle, polyline
- Using the "Undo" and "Redo" functions
- **Exercise:** Create simple shapes and practice using coordinate systems

Week 3: Modifying Commands and Object Selection

- Object selection techniques (window, crossing)
- Modify tools: move, copy, rotate, mirror, scale
- Introduction to layers and layer management
- **Assignment:** Create and modify a basic floor plan layout using modify commands

Week 4: Precision Tools

- Using Osnap (Object Snap) settings for precision
- Drawing aids: Ortho, Grid, Snap, Polar Tracking
- Working with coordinates for accuracy
- **Exercise:** Practice drawing a more complex geometric design with precision tools

Week 5: Layers and Properties

- Detailed use of layers for organizing drawings
- Changing object properties (color, line type, line weight)

- Layer management (locking, freezing, isolating)
- **Assignment:** Create a structured drawing using multiple layers

Week 6: Annotation and Text

- Adding text to drawings
- Using text styles and managing annotations
- Dimensioning basics: linear, aligned, angular, and radius dimensions
- **Exercise:** Annotate and dimension a technical drawing

Week 7: Blocks and Attributes

- Creating and using blocks for repetitive elements
- Defining and modifying attributes within blocks
- Editing blocks using the Block Editor
- **Assignment:** Create a floor plan using blocks for furniture and fixtures

Week 8: Hatching and Gradients

- Applying hatch patterns and solid fills
- Controlling hatch properties (scale, angle, layer)
- Editing hatch boundaries
- **Exercise:** Add hatch patterns to a floor plan or section drawing

Week 9: Layouts and Printing

- Setting up paper space and model space
- Creating viewports and adjusting scale
- Printing and plotting basics, including setting up sheet size and print styles
- **Assignment:** Set up and print a simple layout with title block and viewport

Week 10: Project Work and Review

- Review of all key concepts covered in the course
- Individual or group project to design a simple architectural layout or mechanical part
- **Final Assignment:** Present and submit the project for feedback

3. Autodesk Revit – Value Added Course

The Autodesk REVIT Value Added Course was organized to work on the Architectural design as part of the Design studio VI for the batch 2022-2027.

The workshop attendees list

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1	42210001	ABINAYA. G
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5	42210005	DEVANAND. S
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9	42210009	KAMALA. D
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The AAP network helps students and educators achieve excellence in using our software products.

Certificate No. 12KDKKKD5

KARTHIKEYAN R

Name

Autodesk Revit Architecture

Revit Architecture

Course Title

Product

Sathyabama Institute Of Science And Technology

Institution:

Amirtha Kateswaran

40 hours

Instructor

Course Duration

KKM SOFT (P) Ltd

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10-week schedule for an Autodesk Revit course

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SCHOOL OF BUILDING AND ENVIRONMENT

DEPARTMENT OF ARCHITECTURE

BATCH -2023-2028

Week 1: Introduction to Autodesk Revit and User Interface

- Overview of Revit for architecture and BIM (Building Information Modeling)
- Setting up Revit environment, templates, and project organization
- Navigating the user interface: Ribbon, Quick Access Toolbar, Project Browser, Properties panel
- Basic tools: Select, Move, Copy, Rotate, Scale
- Practical Exercise: Creating a simple floor plan

Week 2: Basic Building Elements – Walls, Floors, and Roofs

- Creating and modifying walls: Wall types, alignment, and materials
- Placing floors and floor types
- Adding roofs: Types of roofs, creating slopes, modifying roofs
- Working with constraints and dimensions
- Practical Exercise: Designing a basic building layout with walls, floors, and roof

Week 3: Working with Doors, Windows, and Openings

- Inserting doors and windows
- Editing and customizing door and window families
- Working with wall openings, curtain walls, and storefronts
- Practical Exercise: Adding doors, windows, and curtain walls to the building model

Week 4: Levels, Grids, and Structural Elements

- Setting up levels and grids for the project
- Managing and modifying structural elements: Columns, beams, and framing
- Practical Exercise: Setting levels and grids for a multi-story structure, adding columns and beams

Week 5: Stairs, Ramps, and Railings

- Creating stairs: Stair types, modifying stair properties
- Designing ramps and understanding accessibility requirements
- Adding railings: Types of railings, customizing railing families
- Practical Exercise: Creating stairs, ramps, and railings within the building

Week 6: Annotation and Detailing

- Adding dimensions, text, and symbols to drawings
- Working with tags and keynotes
- Detail lines and components
- Practical Exercise: Adding dimensions, text annotations, and detailing to enhance clarity

Week 7: Rooms, Areas, and Space Planning

- Creating and managing rooms: Room tags and room schedules
- Area calculations and area plans
- Practical Exercise: Defining rooms and creating a basic room schedule

Week 8: View Management and Visualization

- Setting up different views: Plan views, section views, elevation views, 3D views
- Understanding visibility and graphic overrides
- Introduction to rendering basics and setting up camera views
- Practical Exercise: Creating various views and applying basic rendering settings

Week 9: Sheets, Printing, and Documentation

- Setting up sheets for presentation and documentation
- Adding views to sheets and managing layout
- Title blocks, legends, and keynotes
- Practical Exercise: Creating a sheet set for documentation and presentation

Week 10: Schedules, Export, and Final Project Presentation

- Creating and customizing schedules: Door, window, and room schedules
- Exporting files for collaboration (DWG, IFC, PDF)
- Reviewing and finalizing the project for presentation
- Final Project: Complete building model with schedules, sheets, and views for presentation

Additional Recommendations:

- **Assignments:** Weekly assignments based on practical exercises for hands-on learning.
- **Assessments:** Quizzes and project assessments in Weeks 5 and 10 for progress tracking.
- **Project work:** Encourage students to develop a portfolio-ready project by the end of the course.