



# **School of Civil Engineering**

Five-day Skill Development Programme(SDP)  
on

## **Advance AutoCAD & Introduction to BIM**

Dates: 27<sup>th</sup> & 31<sup>st</sup> May, 2024

## Chairperson

**Dr. Bhavana B.**

Assistant Professor & Director,  
School of Civil Engineering (SoCE), REVA University, India

## SDP Co-ordinators

**Mr. Sreenatha M.**

Assistant Professor,  
School of Civil Engineering

**Mr. Amaranatha G. A.**

Assistant Professor  
School of Civil Engineering

## Internal Advisory Committee

**Dr. P. C. Pandey**

Professor-Emeritus, SoCE

**Dr. W. P. Prema Kumar**

Professor-Emeritus, SoCE

**Dr. Sunil Kumar Tengli**

Professor, SoCE

**Dr. M. A. Nagesh**

Professor, SoCE

**Dr. T. M. Mohan Kumar**

Professor, SoCE

**Dr. Harinath S.**

Professor, SoCE

## Resource Team

**ISCT Enabling Engineers,  
Inamati Building, U B Hill, Dharwad-580007**

## Organising Committee

**Dr. Sanjay Raj A.**

(Academic Head), Assistant Professor,  
School of Civil Engineering

**Mr. Venkatesh wadaki**

(IQAC Head), Assistant Professor,  
School of Civil Engineering

**Mr. Jayachandra C.**

Assistant Professor,  
School of Civil Engineering

**Mrs. Pavithra M. P.**

Assistant Professor  
School of Civil Engineering

**Mrs. Pushpa Lumina**

Assistant Professor  
School of Civil Engineering

## About Skill Development Programme (SDP)

The Skill Development Program (SDP) on Advanced AutoCAD and Introduction to Building Information Modelling (BIM) is designed to enhance participants' proficiency in cutting-edge design and modelling tools. This program delves into advanced functionalities of AutoCAD, equipping learners with the ability to create detailed and precise architectural and engineering drawings. Additionally, it introduces the foundational concepts of BIM, emphasizing its importance in modern construction projects for efficient planning, design, and management. Through this comprehensive training, participants will gain valuable skills that are crucial for thriving in the evolving field of architecture, engineering, and construction.

### Resource Team



#### **Mr. Anil Ghaste (team head)**

Anil Ghaste is an AEC Specialist (Autodesk Certified Instructor) and Technical Director, ISCT (Global Infotech), Autodesk Dharwad. And he is having 32 years of extensive experience in the training industry, specializing in AutoCAD, Revit, and professional programming, I have garnered profound expertise in nurturing talents across various engineering colleges,

including prestigious institutions like IIT and NIT. Achievements: Recognized Mentor -Acknowledged for my role in shaping the careers of numerous students who have gone on to excel in their respective fields and Innovative Curriculum Development - Contributed to the development of dynamic and industry-relevant training modules, keeping pace with the evolving demands of the engineering landscape. Positive Student Feedback - Received consistent accolades from students for my ability to simplify complex concepts and foster a conducive learning environment.



#### **Mr. Shivasharan S Ankalagi**

Shivasharan S Ankalagi is an BIM Trainer (Autodesk Certified Professional), ISCT (Global Infotech), Autodesk Dharwad. He is being in the field of Designing application from last 14years as a trainer as well as into real-time projects design phases. As a trainer trained for numerous students in terms of Masters, Engineering and Diploma student along with working professionals. Successfully completed number of workshops and onsite training sessions in many engineering and diploma colleges, including IIT's.



## Mr. Kiran Patil

Mr. Kiran Patil is an BIM Specialist (Autodesk Certified Instructor), Head-CAD Operations ISCT (Global Infotech), Autodesk Dharwad. He is having more than 12 years of dedicated experience; he specializes in imparting practical knowledge and skills in civil engineering software to students through engaging and interactive workshops.

He Specialize in industry-standard software applications including AutoCAD, Revit, 3Ds MAX, Sketchup and V-Ray, He is committed to empowering the next generation of civil engineers with hands-on experience and real-world applications. His workshops blend theoretical foundations with live project exercises; ensuring students grasp concepts effectively and are prepared for the demands of the professional field.

## About REVA University

REVA University is a State Private University established in Karnataka State under the Government of Karnataka Act No. 13 in the year 2012 in Bengaluru, the IT capital of India. REVA University, recognised by the University Grants Commission (UGC) and approved by the All India Council for Technical Education (AICTE), has an A+ grade from NAAC.

REVA University prides itself in contributing to every student's holistic development. The University currently offers 38 full-time undergraduate programmes, 33 full-time postgraduate programmes, 20 PhD programmes, and certification and diploma programmes. The University offers programmes in Engineering, Architecture, Science and Technology, Commerce, Management Studies, Law, Arts & Humanities, and Performing Arts. Courses are offered in Certificate/Diploma and Post Graduate Diploma too. REVA University facilitates research leading to a Doctoral Degree in all disciplines. The programmes offered by REVA University are well-planned and designed based on methodical analysis and research with emphasis on knowledge assimilation, practical applications, hands-on training, global and industrial relevance, and their social significance.

Teachers and instructors with illustrious academic experience are the architects of the meticulously designed curriculum and program modules offered at REVA University. They come with industrial exposure and experience that often translates through their teaching, thus bridging the gap between the industry and academia.

## About The School of Civil Engineering

The School of Civil Engineering is headed by highly experienced Professor and is supported by well qualified faculty members. The school has state-of-the-art classrooms and well-equipped laboratories. It offers B.Tech. in Civil Engineering and M.Tech. programs in Computer Aided Structural Engineering, Transportation Engineering & Management and Construction Technology & Management, in addition to one-year certification programmes in various streams. The school also has research program leading to doctoral degree.

The curriculum of both graduate and postgraduate degree programs has been designed to bridge the gap between industry academia and hence they are industry application oriented. Civil Engineering teaching was limited to planning, analysis, design, and execution of different types of infrastructure like buildings, roads, bridges, dams, and power plants. However currently, due to increase of techno - logical sophistication and demand for higher living standards geared up by economic growth and concerns about environmental impact has changed the scope of Civil Engineering. The REVA University would like to offer Civil Engineering Programme to produce quality engineers who are effective and efficient in problem solving and providing economical and sustainable infrastructural solutions.

**Vision:** “To produce young Engineers of caliber, who would be committed to their profession with ethics, will be able to contribute to Civil Engineering and allied fields in optimizing usage of resources globally making the world eco-friendlier to live in.”

### Our Mission

- To make the Department Centre of excellence for training the undergraduate students.
- To promote involvement of staff and students in research and advanced training.
- To develop good understanding skills in student communities about Civil Engineering, ethical practices, automation design and society need centric teaching and learning and imparting value addition skills.



# Five Day Skill Development Programme(SDP) "Advance AutoCAD and Introduction to BIM"

## Schedule

Venue: BPD CAD lab-108: A section & AutoCAD Lab-210: B-section

Day -1 -Monday : 27/05/2024			
Sl.No	Time	Topics Covered	Type
1	9:00 am -12:30 pm	Getting Started with AutoCAD	Hands-On
		Account Creation and Software Activation	
		Starting the Software , User Interface	
		Working with Commands, Cartesian Workspace	
		Opening an Existing Drawing File	
		Viewing Your Drawing, Saving Your Work	
	12:30 pm - 1:30 pm	Lunch Break	
2	1:30 pm -3:30 pm	Basic Drawing & Editing Commands	Hands-On
		Drawing Lines, Erasing Objects	
		Drawing Lines with Polar Tracking	
		Drawing Rectangles	
3		Drawing Circles, Undo and Redo Actions	
		Drawing Precision in AutoCAD	
		Using Running Object Snaps	
		Using Object Snap Overrides	
		Polar Tracking at Angles	
		Object Snap Tracking, Drawing with Snap and Grid (Optional)	
	3:30 pm -4:30 pm	Exercises included for practice	Practical
Day -2 -Tuesday: 28/05/2024			
4	9:00 am to 12:30 pm	Making Changes in Your Drawing	Hands-On
		Selecting Objects for Editing, Moving Objects	
		Copying Objects, Rotating Objects	
		Scaling Objects, Mirroring Objects, Editing with Grips	
		Organizing your Drawing with Layers	
		Creating New Drawings with Templates	
		What are Layers? And Changing an Object's Layer	
		Advanced Object Type	
		Drawing Arcs, Drawing Polylines	
		Editing Polylines, Drawing Polygons and Drawing Ellipses	

	12:30 pm -1:30 pm	Lunch Break	
5	1:30 pm -3:30 pm	Getting Information from Your Drawing	Hands-On
		Working with object Properties	
		Measuring Objects	
		Advanced Editing Commands	
		Trimming and Extending Objects	
		Sketching Objects	
		Creating Fillets and Chamfers	
		Offsetting Objects and Creating Arrays of Objects	
	3:30 pm - 4:30 pm	Exercises included for practice	Practical
Day -3 -Wednesday: 29/05/2024			
6	9:00 am -12:30 pm	Inserting Blocks	Hands-On
		What are Blocks? And Inserting Blocks	
		Working with Dynamic Blocks	
		Inserting Blocks with Design Center	
		Inserting Blocks with Content Explorer	
		Setting Up a Layout	
		Printing Concepts	
		Working in Layouts and Copying Layouts	
		Creating Viewports and Guidelines for Layouts	
	12:30 pm -1:30 pm	Lunch Break	
7	1:30 pm - 3:30 pm	Printing Your Drawing	Hands-On
		Printing Layouts	
		Printing from the Model Tab	
		Text	
		Working with Annotations	
		Adding Text in a Drawing	
		Modifying Multiline Text	
		Formatting Multiline Text	
		Adding Notes with Leaders to Your Drawing	
		Creating Tables and Modifying Tables	
	3:30 pm -4:30 pm	Exercises included for practice	Practical
Day -4 -Thursday: 30/05/2024			
8	9:00 am - 12:30 pm	Hatching	Hands-On
		Hatching	
		Editing Hatches	
		Adding Dimensions	
		Dimensioning Concepts	
		Adding Linear Dimensions	
		Adding Radial & Angular Dimensions	
		Editing Dimensions	

	1:00 pm - 2:00 pm	<b>Lunch Break</b>	
9	2:00 pm — 4:00pm	Isometric Drawings	Hands-On
		Creating Isometric Drawings	
		Introduction to 3D	
		Creating 3d Geometries	
		Using solid editing and mesh	
		Modification material application	
		Lighting and Rendering	
	3:30 pm - 4:30 pm	Working on Simple Project	Practical
<b>Day -5 -Friday: 31/05/2024</b>			
	9:00 am -12:30 pm	Introduction to BIM	
		Building Information Modeling for Architectural Design	
		Exploring the User Interface	
		Working with Revit Elements and Families	
		Starting a Project	
		Creating a Basic Floor Plan	
		Adding and Modifying Walls	
		Working with Compound Walls	
	12:30 pm -1:30 pm	<b>Lunch Break</b>	
	3:30 pm -4:30 pm	Using Editing Tools	Practical
		Adding and Modifying Doors, windows	
		Loading Additional Building Components	
		Working with Component Families	
		Viewing the Building Model-	
		Managing Views	
		Controlling Object Visibility	
		<b>Exercises included for practice</b>	

### Target Audience:

B. tech 2nd semester for academic year 2023-24-batch

### Registration Fee Details:

Registration is free for all Participants

**For any queries, please contact**

### SDP Coordinators

**Mr. Sreenatha.M, Assistant Professor,**

**Mr. Amaranatha.G A, Assistant Professor,**

**School of Civil Engineering (SoCE),**

**REVA University, India**

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