

The department features 12 laboratories and a Centre of Excellence "Indo-American Artificial Heart Project" (IAAHP), in collaboration with the University of Pittsburgh, USA. With strong industry-institute partnerships, it offers industrial consultancy services. Mechanical engineering students consistently achieve high rankings and scores in competitive examinations, such as UPSC, GATE, GRE, CAT, GMAT, TOEFL, and IELTS. The department's alumni are well-established worldwide.

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*Program Chair*

**Prof. P. Srikanth,** Professor of ME & HoD, ME KITSW

*Important Guidelines*

**Eligibility:** Aspiring students of B. Tech, are eligible to apply for the Internship

**Number of Seats:** Limited to a maximum of 50 participants, who will be selected by the organizers on a first-come, first-served basis

**Internship Details:** The program will include in-person training, with hands-on sessions conducted at the Department of Mechanical Engineering at KITS, Warangal. It will consist of 9 modules, including 12 hands-on sessions and 12 assessment tests. At the end of each day, participants will take a 30-minute test covering the day's content.

**Registration:** Students can register by filling out the following Google Form. The registration fee is Rs:3,000, with an exclusive 50% discount for KITSW students attending the program.

Registration Link:

For enrollment click the below link

<https://forms.gle/4BJFUVWphfQmwlU8>

*Convener:*

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*Coordinator:*

**Sri. M. Anil Kumar**

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### The following topics will be covered

<b>Module 1</b>	Overview of AutoCAD and its applications in industries. Steps to download and install AutoCAD from the official Autodesk website. Familiarization with the AutoCAD workspace, ribbon, toolbars and panels.
<b>Module 2</b>	<b>Coordinate Systems:</b> Absolute and Relative Cartesian Coordinates, Polar Coordinates and Polar Tracking. <b>Drawing Aids:</b> Grid, Snap, Ortho Mode, and Object Snap (OSNAP).
<b>Module 3</b>	<b>Editing Tools:</b> Basic Editing Commands: Move, Copy, Rotate, Scale, Mirror, Offset, Stretch, Trim, Extend, Fillet, Chamfer, Break, Join and Array. <b>Advanced Editing:</b> Exploding objects, joining and splitting entities, and editing with grips.
<b>Module 4</b>	<b>Layer Management:</b> Creating, modifying and managing layers; understanding layer properties. <b>Object Properties:</b> Assigning and modifying object properties like color, line type, and line weight.
<b>Module 5</b>	<b>Annotation and Dimensioning:</b> Text and Notes- Creating single-line and multiline text, modifying text styles <b>Dimensions:</b> Adding linear, angular, radial, and diameter dimensions; modifying dimension styles. Rules of Dimensioning
<b>Module 6</b>	Understanding and visualize projection of a planes Understanding and visualize projection of solids
<b>Module 7</b>	Conversion of Isometric to Orthographic View Conversion of Orthographic View to Isometric View
<b>Module 8</b>	<b>Hatching and Gradients:</b> Hatching-Applying hatch patterns to closed areas; modifying hatch properties. <b>Gradients:</b> Creating and applying gradient fills to objects. Understanding sections of solids and sectional view representation. <b>Layouts and Printing:</b> Creating and managing paper space layouts; setting up viewports. <b>Plotting:</b> Configuring plot settings; printing drawings to scale.
<b>Module 9</b>	<b>Introduction to 3D Modeling:</b> Understanding 3D coordinate systems and views. <b>Creating 3D Objects:</b> Using commands like EXTRUDE, REVOLVE and SWEEP. <b>Editing 3D Objects:</b> Applying 3D editing commands like UNION, SUBTRACT, and INTERSECT.

**Resource Person(s):**

- Dr. A. Hari Kumar**, Assistant Professor of ME, KITSW
- Sri. M. Anil Kumar**, Assistant Professor of ME, KITSW



## A Two-week Student Summer Internship Program (SSIP) on AutoCAD software

**June 02-14, 2025**



*Convener*

**Dr. A. Hari Kumar**

Assistant Professor, Dept. of ME

*Coordinator*

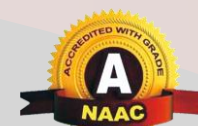
**Sri M. Anil Kumar**

Assistant Professor, Dept. of ME

*Program Chair*

**Prof. P. Srikanth**

Professor & Head, Dept. of ME



NAAC - 'A' Grade  
accredited Institute (CGPA : 3.19)

*Organized by*

**Department of Mechanical Engineering**  
**Kakatiya Institute of Technology & Science, Warangal**  
(An Autonomous Institute under Kakatiya University, Warangal)  
Opp: Yerragattu Gutta, Hasanparthy (M), Warangal-506015

### ABOUT THE PROGRAM

Gain hands-on experience in AutoCAD with our comprehensive two-week internship, designed to equip participants with essential 2D drafting and 3D modelling skills. This focused training covers key features and advanced techniques, ensuring practical learning and real-world applications.

Prepare for success in engineering, design, and manufacturing industries with our comprehensive two-week AutoCAD internship, designed to equip you with industry-relevant skills in precision 2D drafting and advanced 3D modelling.

This hands-on program goes beyond the basics, providing practical learning, real-world applications, and insights into AutoCAD's role in modern industry workflows. Whether you're looking to enhance technical expertise, strengthen your resume, or boost career opportunities, this program is tailored to help you excel in professional environments.

**Certificates awarded @ AutoCAD Internship Program Internship Certificate:** Presented to participants who maintain at least 75% attendance throughout the program.

**Appreciation Certificate:** Presented to participants with 75% attendance & a minimum of 75% score in assessments.

**Merit Certificate** - Awarded to participants with at least 75% attendance & among the top three assessment scores.

### LEARNING OUTCOMES:

Upon completing this AutoCAD course, students will be able to:

- navigate the AutoCAD interface
- utilize precision drafting tools
- create and modify 2D geometry
- apply dimensioning and annotation
- implement layers and blocks
- set up layouts and printing
- understand 3D modelling basics

### ABOUT KITSW

Kakatiya Institute of Technology & Science, Warangal, popularly known as KITSW, is a 45-year-old institute, was established in 1980 by Ekasila Education Society (EES), Warangal, a philanthropic society, with a primary objective of providing quality

technical education. KITSW is approved by the AICTE, New Delhi and recognized by the UGC under section 2(F) and 12(B) of UGC act 1956. The UGC, New Delhi, granted first-time autonomous status in 2014 under Kakatiya University (KU), Warangal, and has extended autonomy for a period of 5 years from AY 2021-22 to AY 2025-26. It is accredited by NAAC with 'A' grade (CGPA: 3.21/4.0). The Government of India's NIRF-2022 placed KITSW in 200-250 rank. The Ministry of MSME, Government of India, recognized KITSW as the host institute to setup a business incubator. The AICTE-CII Survey of Industry-Linked Technical Institutes ranked KITSW as a GOLD category institute for the 6th consecutive year since 2015. The industry institute interaction cell of the institute has collaboration and a MoU with NIT Warangal in the areas of teaching & learning, research, and development. At present, KITSW is offering UG in ten branches of engineering, PG in seven engineering specializations, and MBA. The KU recognized the departments of CE, ME, E&I and CSE as research centers for PhD programmes.

All the eligible UG engineering programmes and some PG engineering programs hold active accreditation status granted by NBA, New Delhi. The accredited PG programs include Structural Engineering & Construction (SE&C), Design Engineering (DE), Power Electronics (PE), and Software Engineering (SE). The Institute has a committed team of 4453 students, 285 qualified faculty members, and 150 technical & supporting staff. Located on 65 acres of lush, sprawling green campus, KITSW is one of the premier technical institutes in the Telangana state of India. Over the years since inception, it has attracted academicians of proven competence onto its faculty, augmented the infrastructural facilities, modernized laboratories, made its curriculum industry relevant, added courses in emerging areas, and placed its graduates through campus placements, higher education in India, and organizations across the globe, and thus received recognition among industry and academic circles. Warangal City is well connected by rail and road. The institute is located at Yerragattugutta, Hasanparthy, on the Warangal-Karimnagar highway.

### ABOUT KITSW ME DEPARTMENT:

The Department of Mechanical Engineering came into existence at the inception of KITSW in 1980 and has served as a supporting department for other disciplines. It is one of the largest departments in terms of faculty and activities and continues to lead and expand in various directions. Currently, it offers an undergraduate program, a postgraduate program (M.Tech) in Design Engineering, and a Ph.D. program. Twenty-seven research scholars have registered so far, with six awarded Ph.D. degrees, while the remaining are pursuing research in Thermal, Production, Composite Materials, and Design Engineering specializations.

The NBA has accredited the B.Tech (Mechanical Engineering) program six times and the M.Tech (Design Engineering) program for the first time under Tier-I in 2023.

The department comprises 29 qualified, experienced, and committed faculty members, 18 of whom hold Ph.D. degrees. The remaining faculty members are pursuing their Ph.D., with an average experience of 15 years. Seven skilled technical staff members support laboratory operations. Faculty members are engaged in research across different fields, including Sustainable Design and Green Engineering, Computational Design, Robotics, Reliability and Failure Analysis, Optimization, Product Design & Development, Automobile Engineering, Additive Manufacturing, Battery Thermal Management, Computational Fluid Dynamics, Thermal Engineering Systems and Fuel Cells, Heat Transfer and Energy Analysis, Electric Discharge Machining, Composite Materials, Powder Metallurgy, and Bio Materials.

The department has secured grants under MODROBS (AICTE) and Minor Research Projects (UGC) and is equipped with advanced resources, including conventional equipment and the latest software. It has computing systems and workstations loaded with engineering software such as ANSYS, CFD, CREO, AUTOCAD, and MATLAB. The central workshop facility (1,000 sqm) is outfitted with state-of-the-art equipment, including a CNC wood router, CO<sub>2</sub> laser cutter, robots, 3D printers, and PCB & IoT tools, supporting technical training across disciplines.