

GOLDEN VALLEY EDUCATIONAL TRUST

Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY

Oorgaam, KGF - 563 120.



DEPARTMENT OF MECHANICAL ENGINEERING

President's Message

Welcome to the Department of Mechanical Engineering at Dr. T. Thimmaiah Institute of Technology, KGF. We admit and graduate students who not only strive to excel but also love challenges. They leave the campus as highly skilled and sought-after engineers and leaders. There are many opportunities for our students to get involved with hands-on projects, experiential learning, and technical competitions.

Dr. T. Venkat Vardhan
President, GVET

Principal's Message

We at Dr. T. Thimmaiah Institute of Technology, KGF greatly value diversity within the department and society and strive to promote, enhance, and create an inclusive and caring environment for all of our constituents. I am proud of the accomplishments of our students, faculty, staff, and alumni who are each exemplary in their own respect.

Dr. Syed Ariff
Principal, Dr. TTIT

ADVANCING SEMICONDUCTOR RESEARCH WITH SCAPS-1D AND SILVACO ATLAS

Mechanical Engineering is a discipline of engineering that applies the principles of physics and materials science for analysis, design, manufacturing, and maintenance of mechanical systems. It is the branch of engineering that involves the production and usage of heat and mechanical power for the design, production, and operation of machines and tools.

Today Mechanical Engineering is one among the many core engineering disciplines that imparts a quality education about various advanced applications, which makes the students adhere to several recent industrial aspects. As most of the components of various streams require manufacturing by mechanically adapted technology means, mechanical engineering plays a vital role in any era.

The graduates from our department are working in various fields not only in mechanical engineering but in software industry, mechatronics, biomedical, aeronautical and aviation etc. Many pursue higher studies, take up research and have become successful entrepreneurs.

“Knowledge is like an Ocean, The species present inside the ocean are like skills. One needs to adapt to the desired skill and learn to implement it in future to mold their career.”

Dr Manjunatha Babu N S
Head – Mechanical Engineering
Dr. TTIT

Institute's Vision and Mission

Vision

To produce technically competent engineers having innovative skills positive attitude, leadership and professional ethics, with a focus on developing sustainable and new technology.

Mission

- Create a conducive environment for teaching, learning and innovation by providing state of the art infrastructure.
- Learn sustainable and new technologies through industry institute collaborations.
- Produce technically competent engineers with ethics, discipline and social consciousness through holistic education.

Department's Vision, Mission and PEOs

Vision

To transform students into technically competent Mechanical Engineers nurturing them in learning sustainable and innovative technology with professional ethics and social concern.

Mission

- Striving to empower students with fundamentals in the field of Mechanical Engineering with innovative, managerial and professional skills.
- To create an environment for progressive learning through industry–institute partnership.
- Imparting quality technical education stressing on new technology with professional ethics for the benefit of the society.

Program Educational Objectives (PEO's)

PEO-1: Graduates will have successful professional careers in the industry, adapting to evolving needs with their strong foundation in science and engineering principles.

PEO-2: Graduates will engage in higher studies and professional development, demonstrating innovation and research capabilities in solving real-world problems while being aware of their societal impact.

PEO-3: Graduates will exhibit leadership, professional ethics, effective communication skills, teamwork, and a commitment to lifelong learning.

Program Specific Outcomes (PSOs)

PSO1: Design and develop components or systems in the field of Mechanical Engineering.

PSO2: Apply modern hardware and software technologies to perform structural and thermal analysis.

Introduction to Department of Mechanical Engineering

Mechanical Engineering at Dr.TTIT is a core engineering programme that imparts a quality Engineering education which makes the students to acquire knowledge and skills on par with today's industrial needs. In this we have mainly 3 streams Design, Manufacturing and Thermal along with the State-of-the-art Laboratories.

The highlight of our department is good placement and highly qualified and experienced faculty holding doctoral & master's degrees. The department has a conducive teaching-learning environment and well-furnished laboratory facilities. Students are encouraged to work within a team in case of project work that involves design, fabrication, and product development. Students are also encouraged to explore and explore their start-up idea, which may create job or internship opportunities for others. The department motivates the students and faculty to attend the various programs (software training, hands-on workshops, technical events, seminars, and industrial visits), which makes them develop analytical and practical skills and apply them to real-world problems.

Students are also encouraged to participate in Sports, Cultural apart from Academics. Students work as team in case of project work that involves material selection, design, fabrication, and product development. They take up Internships in reputed industries and Industrial Visits.

Bachelor of Technology (B.E), MS Engg. (by Research) and Ph.D

Admission to B.E., MS Engg. (by Research) and Ph.D courses are done through Common Entrance Test (CET) conducted by Karnataka Examination Authority. The direct admission for B.E. is also done through Management quota.

OUR ESTEEMED FACULTY



Dr. Manjunatha Babu N S
Associate Professor & HOD
Email: hod.mech@drttit.edu.in
Specialization: Machine Design



Dr. H G Shenoy
Professor & Viceprincipal
Email: viceprincipal@drttit.edu.in
Specialization: Engineering Management



Dr. P D Sudersanan
Professor
Email: dr.sudersanan@drttit.edu.in
Specialization: Industrial Refrigeration
& Cryogenic Engineering



Dr. Narasimha C
Associate Professor
Email: drnarasimha@drttit.edu.in
Specialization: Production Engineering
& Systems Technology



Dr. Mohan Kumar K
Associate Professor
Email: mohan@drttit.edu.in
Specialization: Machine Design



Mrs. Anitha Devi.S.H
Assistant Professor
Email: anitha@drttit.edu.in
Specialization: Thermal Power Engineering



Dr. Sampath. A
Assistant Professor
Email: sampath@drttit.edu.in
Specialization: Tool Engineering



Mr. Srinivas. A
Assistant Professor
Email: srinivas@drttit.edu.in
Specialization: Production Engineering
& Systems Technology



Mr. Sagar S.
Assistant Professor
Email: sagar.s@drttit.edu.in
Specialization: Machine Design



Mr. Saravana Prasad .R
Assistant Professor
Email: saravanaprasad@drttit.edu.in
Specialization: Aeronautical Engineering



Mr. Purnesh .N
Assistant Professor
Email: purnesh@drttit.edu.in
Specialization: Production Engineering
& Systems Technology



Mr. Mahendran .J
Assistant Professor
Email: mahendran@drttit.edu.in
Specialization: Computer Integrated
Manufacturing

OUR TECHNICAL STAFF



Mr. T. D. Govindappa
Foreman



Mr. Madan Gopal
Lab Instructor



Mr. Giri .H .V
Lab Instructor



Mr. Andrew .S
Lab Instructor



Mr. Janarthanan .S
Assistant Lab Instructor



Mr. Kumar .P
Assistant Lab Instructor

Our Major Facilities

Our faculty, research scholar and UG students use the state-of-the-art facilities and softwares available in the department for solving the complex engineering problems of the mechanical industry.

The department has the following laboratories: Computer Laboratory; Material Testing Laboratory; Fluid Mechanics Laboratory; Energy Conversion Laboratory; Mechanical Measurements & Metrology Laboratory; Design Laboratory; Machine Shop Laboratory; Foundry & Forging Laboratory; Heat Transfer Laboratory.



Design Laboratory



Computer Aided Engineering / Machine Drawing Laboratory



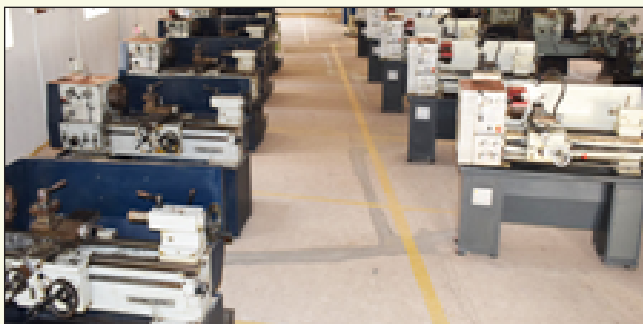
Material Testing Laboratory



Mechanical Measurements & Metrology Laboratory



Foundry & Forging Laboratory



Machine Shop



Fluid Mechanics Laboratory



Computer Integrated Lab & FEA Lab



Heat Transfer Lab

List of Softwares Available

1. SOLID EDGE V18
2. FANUC
3. EDGE CAM
4. FUSION 360
5. ANSYS

Centre of Excellence for skill development

“KNOWLEDGE LEADS TO WISDOM, SKILL LEADS TO A SUCCESSFUL CAREER”

The department has 2 CoEs to upskill the students along with their academics.



**Center of Excellence for
IOT and Machine Learning**



**Center of Excellence for
Advanced Design and Manufacturing**

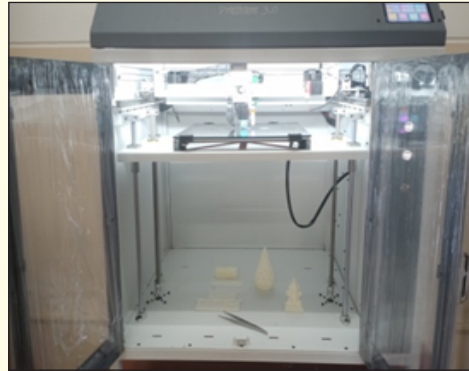
1. Center of Excellence for Advanced Design and Manufacturing powered by CIE Bill Forge (Bill Forge division) This is a industry sponsored CoE to train our students in advanced design and manufacturing in the field of forging, tool and fixture design and 3D printing.



Objectives:

1. To provide knowledge on advanced manufacturing process and forging in particular.
 2. To provide software training using Solid Edge, Fusion 360, Catia softwares and do models using 3D printing.
 3. To impart knowledge on press tools, moulds, jigs and fixtures.
 4. To make the students industry ready by upskilling for better performance.
2. Center of Excellence for IOT and Machine Learning powered by Aqumenz Automation Pvt Ltd presently called Indoskill Pvt Ltd. This indulges in training students in IOT and machine learning and do small projects.

INDOSKILL FOR SKILL INDIA



Objectives:

1. To provide Industrial Automation Training Skill to the Students through hands-on workshops
2. To upskill students for better performance in Industry 4.0 .
3. To assist students in doing small multidisciplinary hobby projects.

MEMORANDUM OF UNDERSTANDING (MoU's)

1. National Institute of Rock Mechanics



The National Institute of Rock Mechanics(NIRM) is an autonomous Research Institute under Ministry of Mines, Government OF India. The institute deals with field and laboratory investigations , basic and applied research.

The following are the facilities provided for our students and Research scholars.

1. Laboratory and Department Visits
2. Internship Program
3. Guest Lectures

2. Deccan Hydraulics Pvt Ltd. Bangarpet



Deccan Hydraulics, situated in Dasarahosahalli Industrial area, is recognized across the world for innovative, yet cost effective automotive solutions to OEMs. Aiming at engineering excellence, Deccan Hydraulics is driven by a passionate work force that has led the company to partner leading automotive brands through solutions that help them stay ahead of the curve.

The following are the facilities provided for our students and Research scholars.

1. Guest lectures on specialized topics by the senior engineers from Deccan Hydraulics.
2. Project guidance for the students by the senior engineers from Deccan Hydraulics.
3. Deccan Hydraulics to conduct campus recruitment for final year mechanical students.
4. Deccan Hydraulics to facilitate internships and industrial visit for mechanical students.



Industrial Vist to Deccan Hydraulics

3. Aqmenz Automation Private Limited, Bengaluru



Aqmenz Automation Private Limited is a Private Company. It is an Edutech Company mainly Focused Corporate Trainings & Value-Added Skill Development Training to the Students. They are also involved in Building Industrial Projects based on Industrial Automation, Embedded Systems, Robotics, AI & Machine Learning.

Service offered to our students

- Provide all types of automation projects to companies using PLCs, and SCADA embedded systems.
- Provide robots and robotic solutions to small student projects.
- Conduct technical skill-oriented training programs for students.

4. CAAD CENTRE, Bangarpet, Kolar



CADD Centre, world's largest network design skill training centre will assist students who are interested in building their career in design and nurture them with continuous, systematic learning process. This would enable digital collaboration between distant groups enabling broader learning and research.

Service offered to our students

- To provide a complete knowledge to the students in the field of CAD
- To provide employable skills to the students of College.
- Make the student aware of the latest tools and techniques to keep them industry ready at the end of their course.
- Increase the employability of the student and maximize on the placement opportunities available.
- To build / improve the confidence level of the student to face the challenges of real time
- To empower the students who are interested in the field of Design, Development and Research

BEST PROJECT AWARDS

- Mr. Badhrinath R, Mr. Merveen D, Mr. Praveen V, Mr. Vijay S, Students of 8 th Semester, under the Guidance of Dr. H. G. Shenoy has received a best project award on participating under Dr TTIT Project Expo 2024 held on 28 th May 2024.
- Mr. Ajay Kumar K, Mr. Praveen R R, Mr. Kevin Mathew, Mr. Yuvaraj S, under the guidance of Mrs. Anitha Devi S H, has received a 1st Prize in Project Expo 2023 held on 20 th May 2023 organized by IIC – Dr TTIT.
- Mr. Gopinath, Mr. Hemanth Kumar, Mrs. Sushmitha has won a best model project titled Exercising Water Pump guided under Innovation Contest Conducted by IIC – Dr TTIT.
- Mr. Nithish.B.R, Mr. Manivasagathian, Mr. Naresh Dev under the Guidance of Prof.Sagar.S titled as bladeless vortex windmill has received a best project award in Project Expo 2022 organized by IIC – Dr TTIT.

MAJOR STUDENT ACHIEVEMENTS

- Mr. Ajay Kumar K, has completed NPTEL Online Certification Courses in
 - Energy Conversation and waste heat recovery
 - Power Plant Engineering
 - Selection of Nanomaterials for Energy Harvesting and Storage Applications
 - Computer Integrated Manufacturing
 - Cell Biology: Cellular organization, Division and Processes.
 - Python for Data Science
 - Viscous Fluid Flow
- Mr. Karthikeyan V, 2018-22 Batch Student has secured 4 th Rank with 9.43 CGPA under VTU.
- Mr. Mushahid, 2019-23 Batch Student has qualified in GATE 2023 with a score of 304 and all india rank of 881.
- Mr. Roshan U, Student of 8h Semester has qualified GATE 2022 with rank score of 9913 and got admitted to IIT Ropar, Rajasthan.

Major Facilities

This 3D Printing machine from Make3d.in with liquified filament fabrication technology with a build volume of 300mm*300mm*300mm is being utilised in the department to produce various 3D models useful for UG Students projects and research work by research scholars.



Research and Incubation center



The Biodiesel Research and Demonstration Center operates under the Karnataka State Bioenergy Development Board (KSBDB) in collaboration with the Karnataka State Council for Science and Technology (KSCST). Located at Dr. T. Thimmaiah Institute of Technology in Kolar Gold Fields, Karnataka. The center plays a pivotal role in sustainable energy by collecting seeds from local farmers, particularly pongamia, to produce biodiesel. This initiative not only supports local agriculture but also reduces dependency on fossil fuels.



Awereness Programm at BRIDC

A unique aspect of the center is its utilization of glycerin, a by-product of biodiesel, for soap manufacturing, promoting a circular economy model. Moreover, the center conducts awareness programs in colleges and schools across the Kolar district to educate students and communities about biofuels and environmental conservation.

In addition to fostering awareness, the center actively supports farmers by distributing pongamia plant saplings and organizing plantation drives, thereby enhancing local biodiversity and promoting sustainable land use practices. It also offers training programs for entrepreneurs interested in biofuel production, contributing to rural development and economic empowerment. Furthermore, the center provides opportunities for engineering and diploma students to engage in practical projects related to biodiesel production, fostering innovation and skill development in renewable energy technologies.

VTU RANK HOLDERS

Sl. No.	Academic Year	Name	Reg No	Percentage	Rank
1	1989 - 1990	AMBAT DINESH PREM CHANDRAN	86RB004	67.35	-----
2	1990 - 1991	ARUL KUMAR R. K	87RB003	70.0	-----
3	1991 - 1992	SURESH. S	88RB056	74.44	-----
4	1992 - 1993	NAGARAJ VISHNU NAIK	89RB026	79.57	II RANK
5	1993 - 1994	SATISH. S	90RB040	72.39	-----
6	1994 - 1995	VENKATA CHALAM. K. K	91RB058	75.21	-----
7	1995 - 1996	SHIVA RAMA KRISHNA. E. S	92RB050	84.2	V RANK
8	1996 - 1997	SHASIDHAR. N	93RB054	90.5	I RANK
9	1997 - 1998	SANTOSH. C	94RB041	82.3	-----
10	1998 - 1999	DEVARAJ. K	95RB012	85.3	VII RANK
11	1999 - 2000	RAJANIKANTH. B	96GREM1044	82.3	-----
12	2000 - 2001	JOY DEEPAK LOBO	97GREM1018	85.0	-----
13	2001 - 2002	SRIVATSA. D. S	1GV98ME047	87.85	-----
14	2002 - 2003	SRIPRIYA. N	1GV99ME064	89.38	-----
15	2003 - 2004	SANDEEP. M. S	1GV00ME049	84.14	-----
16	2004 - 2005	KESHAV. S	1GV01ME018	84.82	II RANK
17	2005 - 2006	VEERESH. S	1GV02ME070	74.46	-----
18	2006 - 2007	SANTOSH. T	1GV03ME049	81.95	VII RANK
19	2007 - 2008	MURALI KRISHNA. R	1GV04ME032	79.00	-----
20	2008 - 2009	SRINIVASAN. P	1GV05ME046	75.82	-----
21	2009 - 2010	ANAND KUMAR. K. V	1GV07ME402	77.45	-----
22	2010 - 2011	SOWMYA. A. V	1GV07ME062	78.43	-----
23	2011 - 2012	SYEEDA SAMEERA. R	1GV08ME069	77.42	-----
24	2012 - 2013	AMITH MANJUNATH. B	1GV09ME006	82.53	IX RANK
25	2013 - 2014	MOHAMMED ILIYAS	1GV10ME032	80.26	-----
26	2014 - 2015	DHANUSH.N	1GV11ME008	74.93	-----
27	2015 - 2016	VARUN. G	1GV12ME015	77.71	-----
28	2016 - 2017	N. MOHANAMBIKA	1GV13ME039	77.6	-----
29	2017 - 2018	DIVAKAR. I	1GV15ME401	77.59	-----
30	2018 - 2019	JAI ASHWIN KUMAR B	1GV15ME016	8.1 CGPA	-----
31	2019 - 2020	SWETHA P	1GV16ME043	7.96 CGPA	-----
32	2020 - 2021	MATHEW SUSHIL	1GV18ME408	8.46 CGPA	-----
33	2021 - 2022	KARTHIKEYAN V	1GV19ME415	9.44 CGPA	IV RANK
34	2022 - 2023	AJAY KUMAR K	1GV19ME001	9.00 CGPA	-----
35	2023 - 2024	SRIKANTH V	1GV20ME010	68.8	-----

OUR MAJOR RECRUITERS

