SRI SIDDHARTHA SCHOOL OF ENGINEERING

A Legacy of Engineering Excellence

GAMANA

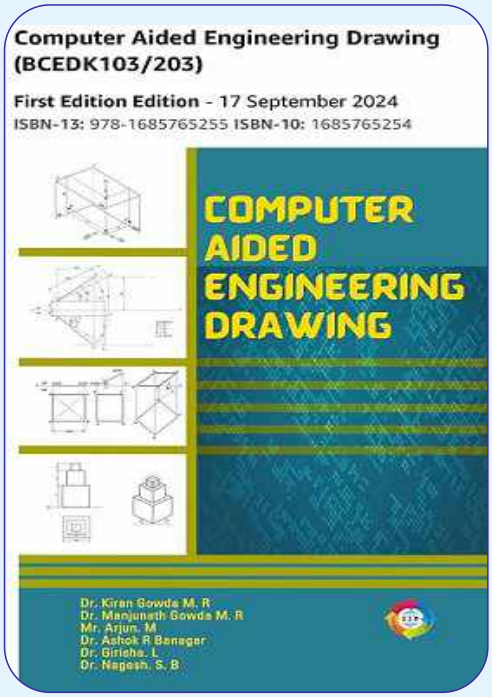
DEPARTMENT OF MECHANICAL ENGINEERING, SSSE - TUMKUR

FACULTY ACHIEVEMENTS

1. Text Book:

Computer Aided Engineering Drawing (BCEDK103/203)

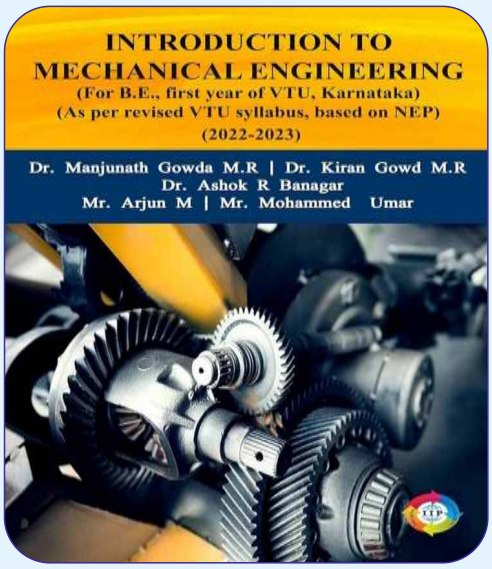
Author: • Dr. Manjunath Gowda M.R, • Prof. Arjun M



2. Text Book:

Introduction to Mechanical Engineering (BESCK104D/204D)

Author: • Dr. Manjunath Gowda M.R, • Prof. Arjun M



3) ES Energy & Environment (ESEE) Journal:

Experimental Investigation on CO2 emission characteristics of Modified SI-Engine with direct fuel injection technique.)

Author: • Dr. Manjunath Gowda M.R

4) HRB PUBLICATION:

Design and Implementation of a Portable Pico Hydro Power System for Low-Head Applications Using a Cross-flow Turbine.

1. Mohammed Imran, 2. Monohar Yadav, 3. Asifulla H.M, 4. Mownesh R, 5. Hurmathulla Khan

"Celebrating Academic Excellence: Our Faculty's Latest Achievements!"

• "Congratulations to Our Newly Qualified PhD Faculty Members!"

• We are thrilled to announce that several of our dedicated faculty members have recently qualified for VTU ETR 2023-2024. Their hard work, perseverance, and commitment to academic excellence continue to inspire both colleagues and students alike.

Featured Faculty Members:

1. ASIFULLA H M

Department: MECHANICAL ENGG

PhD Specialization: MATERIAL SCIENCE & PROCESSING

University: VTU

Research Title: Development and Analysis of LM-13 Aluminium Alloy reinforced with Nano particles of Silicon Carbide and Graphite for Aerospace Application

2. ARJUN M

Department: MECHANICAL ENGG

PhD Specialization: SOLID WASTE (MECHANICAL)

University: VTU

Research Title: Design , Modelling and Analysis of Recycling waste plastics and fly ash into bricks for Pathway/ Construction Materials

NH-4, Near Kyathsandra Toll Gate, Tumkur - 572 104, Karnataka, India. info@ssse.in / www.ssse.in

SRI SIDDHARTHA SCHOOL OF ENGINEERING

A Legacy of Engineering Excellence

GAMANA

DEPARTMENT OF MECHANICAL ENGINEERING, SSSE - TUMKUR

Featured Faculty Members:

3. HANUMANTAH RAYAPPA D

Department: **MECHANICAL ENGG**

PhD Specialization: **MATERIAL SCIENCE & PROCESSING**

University: **VTU**

Research Title: Development and Evaluation of Mechanical and Thermal behaviour of Aluminium Alloy (Al-8081) reinforced with Silicon Carbide and Al2O3 hybrid composites for Automobile.

A Note from the Dean/H.O.D:

"We are immensely proud of our faculty members for achieving this remarkable milestone. Their dedication to advancing knowledge not only enriches our academic community but also sets an inspiring example for our students."

STUDENTS ACHIEVEMENTS

KARNATAKA STATE COUNCIL OF SCIENCE AND TECHNOLOGY (PROJECTS)

1. Design and Development of Shredder Machine for Plastic Waste Recycling.

2. Design and Development of Hybrid/Solar Powered Four-Wheeler EV Vehicle.

Projects done in Mechanical Department

1. DESIGN AND DEVELOPMENT OF SHREDDER MACHINE FOR PLASTIC WASTE RECYCLING.

Guides:

- **Dr. Manjunath Gowda M R.**, BE, MTech., Ph.D
- **Mr. Arjun M.**, BE, MTech (Ph.D)
- **Mr. P S Ravichandra.**, BE, MTech
- **Mr. Hanumanth Rayappa.**, BE, MTech (Ph.D)

STUDENTS:

- RAGHU M (1HM22ME431)
- SOMU D (1HM22ME436)
- POOJA H S (1HM22ME427)
- PAVANKUMAR (1HM22ME425)
- HEMAKSHI M (1HM22ME414)
- JAYANTHKUMAR B C (1HM22ME415)
- THONTA REDDY PRATHAP (1HM22ME438)
- SACHIN MANE (1HM22ME435)
- BABAJAAN (1HM22ME404)
- PRAVEEN KUMAR V (1HM22ME429)
- ZAFARULLA (1HM22ME439)
- AKSHAY KUMAR B (1HM22ME402)

Shredding Machine is designed to handle specific type of plastic, such as PET Bottles, Cans and Tins, while other can handle a wide range of plastic materials.

The benefits of using a plastic shedding machine include reducing the volume of plastic waste, saving space in landfills and making it easier to transport the material for recycling shredding plastic waste also helps to prevent the release of harmful chemicals into the environment as plastic waste can release toxic substance when left to decompose.

Working: the working principle of plastic shredding machine involves feeding the plastic waste in to the hopper, where it is pulled down by a set of rotating blades or knives. These blades cut and shred the plastic waste into smaller pieces which are the discharged through a screen or mesh. The size of the shredding plastic particles can be adjusted by changing the size of the screen or mesh which controls the size of the openings through which the shredded plastic passes.

Benefits:

1. Size Reduction for efficient recycling
2. Cost effective and Eco friendly solution
3. Versatility in plastic waste processing.
4. Adjustable output sizes 5.wide range of applications

Application:

1. Plastic Industry
2. Recycling Facilities
3. Waste Management companies
4. Plastic Recycling Business
5. Laboratories
6. Food processing Facilities

WASTE PLASTIC SHREDDING MACHINE

NH-4, Near Kyathsandra Toll Gate, Tumkur - 572 104, Karnataka, India. info@ssse.in / www.ssse.in

SRI SIDDHARTHA SCHOOL OF ENGINEERING

A Legacy of Engineering Excellence

GAMANA

DEPARTMENT OF MECHANICAL ENGINEERING, SSSE - TUMKUR

2) DESIGN AND DEVELOPMENT FOUR-WHEELER EV VEHICLE:

Guides:

- **Dr. Manjunath Gowda M R.,** BE, MTech., Ph.D
- **Mr. Arjun M.,** BE, MTech (Ph.D)
- **Mr. Hurmathulla Khan.,** BE, MTech
- **Mr. Mownesh R.,** BE, MTech

STUDENTS:

- BASAVARAJ (1HM22ME405)
- NIRUPADI U B (1HM22ME424)
- RAJU ARERA (1HM22ME432)
- RANGAPPA (1HM22ME433)
- PRAJWAL (1HM22ME428)
- BHARATH KUMAR H R(1HM22ME406)
- PRAVEEN KUMAR H M (1HM22ME430)
- RAVIKUMAR D C (1HM22ME434)
- HANUMANTHA C G (1HM22ME413)
- AKSHAYAKUMAR (1HM22ME434)
- KIRANKUMAR H K (1HM22ME417)
- DWARAKEESHA G N (1HM22ME410)

An electric vehicle are environment friendly, they are considered green transportation. In an electric vehicle various components like motor, battery, controllers are used. While designing an electric vehicle, the first and foremost component to be selected is an electric motor which replaces the Internal Combustion engines of conventional vehicles.

The vehicle model has totally a steering handle in which is connected to the rack and pinion in front side of the vehicle. The wheel shaft is connected with arrangement of DC motor. Battery is used to run the vehicle. Battery is connected to the DC motor.The motor connected to the wheel shaft runs the vehicle. Shock absorber is attached to the front shaft which gives more flexibility to the vehicle. Switch controls the vehicle within range of the speed. Battery and DC motor are joined to the frame of vehicle rigidly. No need of cooling device for the vehicle. This vehicle causes no pollution.

Most electric vehicle uses lead acid battery but in new type of electric cars, use lithium ion batteries because it can store more energy than lead acid battery in same physical space and these batteries are rechargeable. The efficiency and life span of battery is far better than other type of batteries, but it is costlier than lead acid battery.

After that controller control the flow of energy from energy source to the motor. Motor transmit the power to the wheels of the vehicle by the use of transmission system.

SOCIAL COMMITMENTS

Demonstration about Mechanical Engineering Karnataka Public School Students

INDUSTRIAL VISIT FOR KARNATAKA PUBLIC SCHOOL STUDENTS

The Mechanical Engineering Department of our college had the privilege of hosting high school students from Karnataka Public School (High School Section), Dandinashivara, Turvekere Taluk, Tumkur District – 572215, for an Industrial Visit.

This visit aimed to enhance the students' knowledge and skills by exposing them to real-world applications of mechanical engineering. Through hands-on experiences and demonstrations, they gained valuable insights into mechanical machines and laboratory experiments that will help shape their future careers.

During the session, students were introduced to various mechanical machines such as:

- **Lathe Machine**
- **Milling Machine**
- **Drilling Machine**
- **Cutting Machine**

Our Department Head, Dr. Manjunath Gowda M. R., along with faculty members Mr. Arjun M. and Mr. P. S. Ravichandra, guided the students through demonstrations and discussions on mechanical trends and equipment applications.

SRI SIDDHARTHA SCHOOL OF ENGINEERING

A Legacy of Engineering Excellence

GAMANA

DEPARTMENT OF MECHANICAL ENGINEERING, SSSE - TUMKUR

This initiative provided students with hands-on learning experiences, encouraging them to explore opportunities in mechanical engineering and related fields. We hope such activities continue to inspire and support students in making informed career choices.

Photo with Karnataka Public School Students

"INTERNSHIP AWARENESS SESSION BY VTU CENTRE ONLINE EDUCATION"

We extend our heartfelt gratitude to VTU Nominee,

Mr. Shankar Narayan Sir, for sharing his valuable insights and experiences regarding internships during the awareness session. His guidance has been instrumental in helping our students understand the importance of internships in shaping their careers.

A special thanks to our Beloved Principal, **Dr. L. Sanjeev Kumar Sir** for his unwavering support, guidance, and enthusiasm in encouraging students to explore new learning opportunities.

We also express our sincere appreciation to the HODs of each department and their coordinators for their active participation. A very special thanks to **Mr. Mownesh R. Mr Arjun M and Dr. Manjunath Gowda Sir** for their dedication and efforts in making this event a huge success.

Thank you to everyone who contributed to this informative and enriching session.

Awareness of Internship Program

"VIJNATHAM UTSAV 2025"

Project Exhibition

Our mechanical department students Mr Manjunth R and team Mr Bharth Kumar H R and Team are participated with their project Tittled "Design and development of SHEDDER MACHINE for recyclingof plastic waste" and one more "Design and Fabrication of EV 4 Wheel Vehicle "in **VIJNATHAM UTSAV 2025** project exhibition at Sri Adhichunchanagiri Shikshana Trust Adichunchanagiri University Nagamangla Taluq Mandya District.

Mr. Mownesh R and Mr. Ravi M G Assistant professors Our Department Faculties Are also presented in this exhibition are for supporting the students to give a good demonstration about project how the models works and their application. Finally we got a good appreciation from "Sri Niralanandanatha Mahaswamiji" and also visitors for our project work.

VIJNATHAM UTSAV 2025 project exhibition at Sri Adhichunchanagiri Shikshana Trust Adichunchanagiri University Nagamangla Taluq Mandya District

VIJNATHAM UTSAV 2025

SRI SIDDHARTHA SCHOOL OF ENGINEERING

A Legacy of Engineering Excellence

GAMANA

DEPARTMENT OF MECHANICAL ENGINEERING, SSSE - TUMKUR

39TH KARNATAKA STATE WORKING JOURNALISTS CONFERENCE HELD AT SSIT GROUND TUMAKURU

The 39th State-Level Journalists Conference was successfully organized at **Sri Siddhartha Institute of Technology (SSIT)**, Tumakuru, on January 18–19, 2025.

Our Department Head, **Dr. Manjunath Gowda M. R.**, played a key role as the main representative of Sri Siddhartha School of Engineering, actively participating in the event to promote the college, its admissions, facilities, and placement opportunities.

A dedicated team of faculty members, including **Mr. Arjun M, Mr. Hanumantharayappa, Mr. Hurmathulla Khan, Mr. Asifulla H. M, and Mr. Mownesh R.**, also contributed to the success of the event.

We were honored by the visit of our **Honorable Chief Minister, Sri Siddaramaiah Sir, and Honorable Home Minister, Dr. G. Parameshwara Sir,** to our college stall. They extended their best wishes to our management and appreciated the efforts of our Dean and Head of Department, **Dr.Manjunath Gowda M. R.**

This event served as a great platform to showcase our institution and its academic excellence

Attend 38th Press conference in SSIT Ground

WORKSHOP/SEMINAR

TECHNICAL TALK ON FUTURE IN MECHANICAL ENGINEERING

A technical talk on "Future in Mechanical Engineering" was conducted on 22nd February 2025 (Saturday) at Classroom 106, Mechanical Engineering Department, SSSE. The session was presented by **Dr. D. Chandra Kumar,** Head of the Mechanical Engineering Department, **Shri Shivakumar Swamy College of Engineering,** Bangalore and was attended by the faculty members and students of the 4th and 6th semesters.

The program commenced with a welcome speech by **Prof. Md. Imran.** The entire event was coordinated and organized by **Prof. Hanumantharayappa. D** and **Prof. Hurmathulla Khan,** under the guidance and support of **Dr. Manjunath Gowda M.R.,** HOD, Mechanical Engineering Department.

During his presentation, **Dr. D. Chandra Kumar** emphasized the significance of mechanical engineering in today's world and highlighted the growing importance of interdisciplinary engineering. He elaborated on emerging trends in the field, such as Robotics, Artificial Intelligence (AI), and 3D Printing, explaining how these advancements contribute to building a sustainable and technologically advanced future.

SRI SIDDHARTHA SCHOOL OF ENGINEERING

A Legacy of Engineering Excellence

GAMANA

DEPARTMENT OF MECHANICAL ENGINEERING, SSSE - TUMKUR

Following the insightful session, a vote of thanks was delivered by **Dr. Manjunath Gowda M.R.,** expressing gratitude to the speaker and all those who contributed to the event's success. The program concluded with a motivational address by the Principal, **Dr. Sanjeev Kumar,** who appreciated the initiative and encouraged students to explore the evolving opportunities in mechanical engineering.

The technical talk was highly informative and engaging, providing students with a better understanding of the future scope in their field of study.

Technical talk on Future in Mechanical Engineering

Industrial visit to "FITWEL TOOLS & FORGING PVT. LTD

An Industrial visit to "FITWEL TOOLS & FORGING PVT. LTD", gives a valuable real world insights into the practical applications of the concepts. Industrial visit bridges the gap between theoretical knowledge and Industrial practice, allowing students to observe advanced technologies, Production processes, and Day to Day operation of Manufacturing facilities.

Industrial application enhances to understanding of the Design, Development, and Implementation of Mechanical systems. By this industrial visit, Students gain exposure to potential career paths, network with professionals and enrich their academic journey with hands on learning that is essential for their future success as Engineers.

Plantation by Mechanical Engineering Department

RECTOR: Dr. L Sanjeev Kumar., Principal

REPORTER: Dr. Manjunath Gowda M R., HOD & Dean

CHIEF EDITOR: Mr. Arjun M

PUBLICATION INCHARGE: Mr. Asifulla H M

NEWS PHOTO EDITOR: Mr. Mohammed Imran

MEMBERS:

- Mr. Hurmathulla Khan
- Mr. Manohar Yadav.C
- Mr. Mownesh.R

NH-4, Near Kyathsandra Toll Gate, Tumkur - 572 104, Karnataka, India. info@ssse.in / www.ssse.in