GEETANLALI INSTITUTE OF TECHNICAL STUDIES UDAIPUR

MECHNOBLAZE

EDITION

VOLUME 2 ISSUE II JANUARY – JUNE, 2019

DEPATMENT OF MECHANICAL ENGINEERING

INSIDE

- Workshops
- Trainings
- Expert lectures
- Industrial visit
- Acheivements
- Placements

Department offers Mechanical engineering programs at the bachelor's and master's level. Its strong and interactive curriculum and hands-on learning makes the students capable of taking their career to the next level, whether it be in the professional engineering practice or in advanced studies. The department is focusing on high-quality teaching along with integrated laboratory experience.

The discipline of mechanical engineering effectively connects teaching of engineering education to active research in different areas. The department has the most modern infrastructure to undertake high-end teaching, research and developmental activities in laboratories.

Aim of Department's to provide our students with a perfect blend of intellectual and practical experiences that helps them to serve our society and address a variety of needs. With a solid grounding in the principles and practice of mechanical engineering, our undergraduates are ready to engage in ethical approaches to engineering, with concern for society and the environment. Our program at the postgraduate level aligns academic course work with research, to prepare students in specialized areas within the field of mechanical engineering.

The department has a team of highly qualified and experienced faculty.

DIRECTOR'S DESK

Dr. Vikas Mishra

"Challenges are what makes life interesting and overcoming them is what makes life meaningful ."

I am very happy that Mechanical Engineering Department is releasing 2nd Edition of "Mechanoblaze" as a forerunner of department activities. It is a technical platform to bring out the hidden talents of students and faculty. The major strength of the department is a team of well qualified and dedicated faculties who are continuously supporting the students for their academic excellence.

We have arranged several industrial visits and workshops for our 2nd, 3rd and 4th year students in this semester. The seminars held have been enlightening for both the students and the faculty. The workshops have made our students professionally competent with huge moral values, ethics and leadership qualities that would enable them to serve the society in the best possible manner.

The students have not only academically excelled but have also gained excellence in sports and other extracurricular activities.

The GITS family is an ever increasing family and I feel proud to be a part of it. Congratulations to all the students who have excelled in various fields and good luck to those who are on their way to achieve success.

HOD'S DESK

Dr. Deepak Paliwal

Casting the world, Forging the campus, Shaping the universe, Welding the rest of all branches, Bcoz, We are the Men, We are the machine, and we are Mechanical Engineer's.

It gives me immense pleasure to lead the department of Mechanical Engineering .Our college is one of the premier institutions in the region, unique like a prism reflecting the manifold shades of learning and co-curricular activities. Geetanjali Institute of Technical Studies is striving hard towards the goal of providing innovative and quality education with high standard to achieve academic excellence.

The motto of our department is to provide quality education. The process of learning is extremely important in life. What you learn, how you learn and where you learn play a crucial role in developing ones intellectual capability, besides career. The excellent infrastructure, teaching faculty of the best kind ensuring quality education such as interaction among students, parents and staff, along with a Training and Placement Cell ensures a bright future to its students. Thus we are confident that our Engineers will emerge as assets not only to this institution and to the organization they belong, but also to the country at large.

EDITOR'S DESK

SUCCESS IS NO ACCIDENT.

"It is hard work perseverance, learning, studying, secrifice and most of all,love of what you are doing "

It gives me an immense pleasure to introduce this Newsletter of Mechanical Engineering ,Named MECHNOBLAZE, means Enlightening Mechanical .By presenting this Newsletter , wish to provide you the same . I am grateful to our honourable Director sir and HOD sir who gave this opportunity . It has been a learning experience to all of us . I am thankful to all staffs for their co-operative nature. At last but not least I am thankful to all those helped us directly and indirectly.

Mr. NARENDRA PATEL
(Assistant professor)
DEPARTMENT OF MECHANICAL ENGIN EERING

Interaction with NSVC Experts

One day interaction with the National Solar Vehicle Challenge (NSVC) experts has been organized on 18 th January 2019 for the students of Mechanical engineering branch for II , III & IV year students. The team experts were Aman Kumar Singh, operational Head, Dynamist motorsports Pvt. Ltd. & Malhotra Amit Rakesh,, Event Head, Dynamist motorsports Pvt.Ltd. They guided the students about National solar vehicle Challenge in which they said that every year this challenge is organised by Dynamist Motorsports. The motto of the challenge is to design a single/multi sitter, light weight, efficient solar vehicles with 3 or 4 pneumatic tires

The experts boosted the morale of the students to participate more in such type of competitions. Experts discussed that the vision of NSVC is to stir the minds of young and dynamic technocrats to make India the largest renewable energy hub in the world. They also stated that this can only be done via by increasing public awareness. The experts also briefed the students about various participating skills, rules and platform for the students where they can participate in more such competitions. They briefed the students about efficient alternative electric vehicles and related technologies.. The experts stated that vehicles participating in the challenge will be judged in a series of 3 rounds viz.

1. Virtual round
2. Technical Inspection (Static Event)
3. Dynamic Event in two level **A) State/Zone Level**

Workshop on 3D Printer

A one day workshop on 3D Printer was organized on 18th August 2018 for Automobile and Mechanical engineering students by the department of Mechanical Engineering. The expert from Garuda3d (a 3D printer manufacturing company based in Hyderabad) Mr. Selvakumaran gave the fundamental understanding of 3D printer assembly from zero level. Various techniques and processes of 3Dprinting like FFF, SLA, DLP, SLM etc were explained in detail with live demonstration.

Students of Automobile and Mechanical Engineering, GITS, have jointly created a society, "Society of Innovative Engineers: Automobile and Mechanical", SINEAM. The aim of this society is to inculcate multidimensional qualities within the personality of students through the organization of various activities and events. This workshop was the very first activity under the banner of this society. Now, Students are interested to do lot more activities in the coming time and lean skills like teamwork, leadership, communication, strategy planning and execution etc.

The Director of GITS, Prof. Vikas Misra said that 3-D printing is an unstoppable force. Not too long ago, the printing speed and limited output of 3-D printers made them suitable only for rapid prototyping. But in the coming years, 3-D printers will be at the heart of full-scale production capabilities in several industries, from aerospace to automotive to health care to fashion.

HOD, Mechanical and Automobile Engineering Department, Prof. Deepak Paliwal encouraged students to do lot more activities based on future technologies through the Society created by GITS students..

Association of Mechanical and Automobile Engineering Students with SAE INDIA

Society of Automotive Engineers, INDIA, SAEINDIA, is a non profit engineering and scientific society dedicated to the advancement of mobility community in India. This society is a strategic alliance partner of SAE International and includes engineers, executives from Industry, Government Officials, Academics and Students across the globe. On 31st August 2018, Mr. Ayush Pandiyar, final year student of Automobile Engineering, was nominated as a SAE-Coordinator, GITS, and Mr. Vinit Shrimali, final year student of Automobile Engineering was nominated as a SAE-Co-Coordinator by HOD Dr. Deepak Paliwal, to lead SAEINDIA related activities within Mechanical and Automobile Engineering Departments. For the smooth coordination, Mr. Zuber khan (Assistant Professor, ME dept.) and Mr. Anand Balakrishnan (Assistant Professor, ME dept.) were also appointed as SAE students' mentor.

Mr. Auyush Pandiyar and students' mentors shared various key points and benefits of SAEINDIA membership in an interactive session held on 31st August 2018 at 1:00 PM in Mechanical Engineering Department. During this motivational session, students were informed that; through this channel they may participate in great events like SUPRA SAEINDIA (sponsored by Maruti Suzuki) which shall give a real platform to test engineering skills and learning from mistakes. Benefits of membership like, discounts in workshops , conferences and events such as BAJA ,SUPRA, EFFICYCLE , AERODESIGN COMPETITION ,TWO & THREE WHEELER CONFERENCES, free online mobility magazines comprising latest technology and development in automotive industries etc were discussed in detail. Finally, vital information about the society motivated students to become the member of SAEINDIA. As a result, 147 students (II year (ME&AE)- 44, III year (ME&AE)-69, IV year (ME&AE)-34) readily decided to associate themselves with SAEINDIA through membership..

Workshop on Photo Voltaic Cells

A one day workshop on Photo Voltaic Cell was organized on 14th September 2018 for Automobile and Mechanical engineering students by the department of Mechanical Engineering. Experts from Sofcon India Pvt Ltd, Mr. Abhinov Chakraborty (Regional Manager) and Ms. Vashita Jain (Branch Manager) delivered the fundamental information of selection, sizing and designing of PV modules and described "How different PV modules generate different levels of electricity". This was the second activity executed under the banner of "Society of Innovative Engineers: Automobile and Mechanical", SINEAM, created by GITS, ME and AE students.

The Director GITS, Prof. Vikas Misra, emphasized on the utilization of renewable energy to save our climate, to save non-renewable energy, reduce pollution etc. All eighty Nine participants of workshop were motivated by the practical exposure of converting solar energy into smart energy. Certificates of National Skill Development Corporation, India, were distributed to participants by Prof. P C Bapna, Dean Academics, in the valedictory function of the workshop. Dr. Deepak Paliwal, HOD Mechanical, conveyed vote of thanks to faculty members and students for their active contribution. vulputate at imperdiet lacus consequat.

Expert lecture on “Atomistic Simulation of Nano Materials” by Professor Avinash Parashar from IIT, Roorkee

An expert lecture on Atomistic Simulation of Nano Materials was organized on 20th September 2018 for Automobile and Mechanical engineering students by the department of Mechanical Engineering. Expert from one of the premier institutions of India, Indian Institute of Technology, Roorkee, Prof. Avinash Parashar delivered the fundamental information of nano materials and described the analysis process of nano material at quantum level. Prof. Parashar discussed about the software that can be used for simulation purpose and stated its limitation.

The Director GITS, Prof. Vikas Misra, emphasized that Nanotechnology is a revolutionary field of micro manufacturing involving physical and chemical changes to produce nano-sized materials. It has a major impact on areas like faster computers, advanced pharmaceuticals, biocompatible materials, crack proof surface coatings, more efficient telecommunications. Students of mechanical and automobile were highly motivated by an excellent piece of information delivered by Prof. Avinash Parashar and posed their quarries on nano materials at the end of the session.

Dr. Deepak Paliwal, HOD Mechanical, conveyed vote of thanks and motivated students to apply knowledge gained by the expert lecture in the final year projects and proposed faculty members as well to utilize atomistic simulation approach, predict the behaviour of materials and contribute some research in the area of nano technology.

Dean Academics, Prof. P C Bapna, Head MCA, Prof. Hemant Sahu also attended the expert lecture session vulputate at imperdiet lacus consequat.

Workshop on SAE and Automobile Events

Ayush pandiyar, Vinit Shirmali, Vikas Salvi, Students of Automobile & Mechanical Engineering Department, GITS, along with Mr. Zuber Khan, Assistance Professor Mechanical Engg. and Mr. Anand Balakrishnan Assistant Professor, Mechanical Engg., conducted a Workshop on automotive events (like BAJA, SUPRA, ESVC etc.) on 30 September 2018. This workshop was planned under the banner of "SAE GITS" with a vision to train students of institute in Automotive Events and Projects.

Dr. Vikas Misra, Director GITS, Dr. Deepak Paliwal, Head Mechanical Engineering department designed a club "Society of Automotive Engineers GITS" in which automobile & Mechanical engineering students shall be a part of the international society i.e. SAE.

This workshop was conducted with two sessions first was a lecture and other was a practical session. During the interactive session, coordinators decided students' practical Workshop on institute's old projects like MAC ATV, ESVC, GO-KART Project. It is expected that this activity shall increase the employability of the GITS students. Further, students will come to know that classroom teachings and practical understanding are two separate pillars to nurture technical skills.

The mentors assured that, if the students perform well in the assigned projects then they may get employment opportunities good experience in those events sit amet dui vulputate at imperdiet lacus consequat.

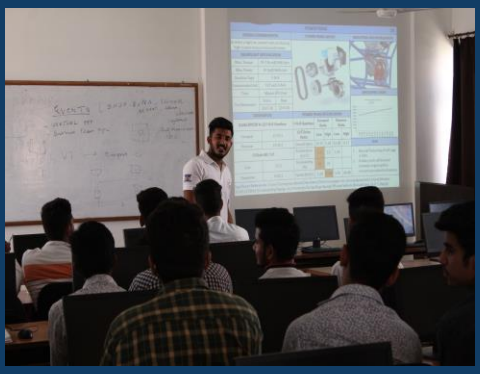
Workshop on Automobile Chassis

The Students of Automobile & Mechanical Engineering Department, GITS, along with Mr. Zuber Khan, Assistance Professor Mechanical Engg. and Mr. Anand Balakrishnan Assistant Professor, Mechanical Engg., conducted a Workshop on Automobile Chassis on 7 October 2018. This workshop was planned under the banner of "SAE GITS" with a vision to train students of institute in Automotive Events and Projects.

Dr. Vikas Misra, Director GITS, Dr. Deepak Paliwal, Head Mechanical Engineering department designed a club "Society of Automotive Engineers GITS" in which automobile & Mechanical engineering students shall be a part of the international society i.e. SAE.

This workshop was conducted in session of a lecture. During the interactive session, coordinators of SAE GITS taught about the automobile chassis and its types, different & more than syllabus. During the session students were taught about the calculation to be made while designing an automobile chassis. A task was given to the student to design a ladder frame. It is expected that this activity shall increase the interest of students in the automobile industry. Further, students will be taught how to manufacture an Automobile frame during another practical session.

The mentors assured that, if the students performed well during the workshop and it will help them for their projects and future career.



Inaugural of "Lake Cleaning Machine"

In order to keep the lakes clean, Mechanical engineering students of gits Dabok, with the inspiration of our collector Sh.Bishnu Chandra Mallick have designed and successfully formulated "Lake cleaning machine". Inaugural function of the "Lake Cleaning Machine" took place in the presence of Sh.Bishnu Chandra Mallick (collector, Udaipur), Sh.Siddarth Sihal (S.P Udaipur), Sardar Mohammad and Sh.Tej Sharma (Member of Lake Development Association).

Dr.Vikas Mishra, Director, GITS mentioned in his statement that in this Lake Cleaning Social Welfare Program collector said that Tourism and economic activities of the Udaipur city is entirely dependent on lakes. The society consists of 2 types of people- first group who is always ready to work for the preservation and conservation of lakes and the other group which is least bothered and interested about the society welfare. He said that we should work in this direction to change their attitude and mentality.

This lake cleaning Machine has been designed by the GITSians for the people who really think the lake should be clean. The defects and flaws of this machine shall be checked again and improvised edition will be launched next month very soon. In addition to all this Sh.Siddarth Sihal, (S.P, Udaipur) also mentioned that the installation of CCTV cameras nearby lakes is in process and will be finished soon. Mr. Kapil Agrawal, Vice Chairman, GITS remarked that this machine will be used for keeping the lakes clean and it is an important step in society welfare. GITS has always been there for helping people and will continue to do such in coming years too.

Training on Implementing Energy Conservation building code (ECBC) in Rajasthan

Two faculty members, Mr. Vijayendra Singh Sankhla and Ms. Deepti Mehta attend the ECBC Workshop at Q Hotel, Udaipur.

As a trainer who needs to do some essential requirements of ECBC code in the future commercial and domestic constructions buildings, we found this workshop a very enriching experience for us. We will describe briefly below some elements in the workshop. The seminar and workshop were designed to: 1) Provide and understanding on the key concepts of ECBC. 2) review and discuss the phenomenon of various comfort system which are very necessary when designing constructing building like air conditioning, lighting, and various luxuries which are consuming lots of electricity. 3) Discuss Heating ventilation and air condition system (HVAC). 4) Elaborate lighting and its control system for decreasing energy consumptions. 5) Describe uses of various renewable energy sources for generating electricity. 6) Give short description of Processor, purpose and application of ECBC code.7) At last they have also concluded about processor and purpose of RREC and ECBC workshops. Participants were offered to contact both speakers for future consultation via online.

The seminar and workshop was well attended by university professors and Assistant professors, reputed Architectures, and university students studying in the master's and doctoral programs.

The programme inaugurated by anchor Rati Khandelwal and an opening speech by Mr. Sunip Mathur (General Manager , RREC, Udaipur) , Chief Guest was B.R. Meghan (Additional Chief of PWD , Civil department, Udaipur) and Mr. Ashu Gupta (Master Speaker).

The first session was presentation by Mr. Ashu Gupta on introduction and importance of energy conservation building code when constructing commercial buildings. In this session he discussed various accessories of buildings which are coming in ECBC code.

The second session was presentation by Mr. Ashu Gupta on various comfort accessories and equipments which shall be used in buildings. He discussed that how we can control energy consumption from all comfort accessories and equipments. In this session he also included heating ventilation and air condition system in details which are very necessary for buildings.

The third session was presentation by Ms. Rati Khandelwal on processor, purpose, applications and uses of RREC code and ECBC codes for designing and constructing buildings.

The fourth session was presentation by Mr. Ashu Gupta on discussion, interaction and query of participants. The workshop ended at 4:00 PM by Sunip Mathur(General Manager of RREC) who were the Organizer of workshop on ECBC..

Udaipur, 28th August 2018

Workshop by NITTR,Kolkata

Two days faculty development workshop has been organised by NITTR KOLKATA department of civil engineering in which various working stress methods were discussed.Major Highlights of the workshop were as follows:

- Revisions in codal provisions of IS 432
- Design of seismic resistant buildings & method used
- Major insights on stress
- Basic concept used in LSM &WSM method.
- Various seismic design explanations with examples

Acadmic Topers

TOPPERS OF AE II sem (batch 2017-21)

Roll Number	Name	Marks	Position
17EGIAE010	SANJAY MEHTA	705	I
17EGIAE007	PIYUSH SHRI MALI	671	II
17EGIAE011	YAMAN PANCHAL	643	III

TOPPERS OF ME II sem (batch 2017-21)

Roll Number	Name	Marks	Position
17EGIME060	VISHAL SINGH CHAUHAN	840	I
17EGIME011	DEEPAK SONI	804	II
17EGIME004	ARJUN	801	III

TOPPERS OF ME IV sem (batch 2016-20)

Roll Number	Name	Marks	Position
16EGIME 028	MOHIT BAYAD	762	I
16EGIME 004	APOORV GUPTA	719	II
16EGIME025	MAHENDRA SINGH CHUNDAWAT	719	III

TOPPERS OF AE IV sem (batch 2016-20)

Roll Number	Name	Marks	Position
16EGIAE 016	MAHIPAL MERTIYA	750	I
16EGIAE 006	DEEPAK SHARMA	742	II
16EGIAE022	TARUN KUMAWAT	736	III

TOPPERS OF ME VI sem (batch 2015-19)

Roll No	Name	Marks	Rank
15EGIME094	RAHUL PATEL	841	I
15EGIME053	KETAN DARJI	836	II
15EGIME054	KOSTUBH VYAS	795	III

TOPPERS OF AE VI sem (batch 2015-19)

Roll Number	Name	Marks	Position
15EGIAE025	VINIT SHRIMALI	839	I
15EGIAE003	AYUSH PANDIYAR	812	II
15EGIAE016	RAJDEEP SINGH	787	III

National Programme on Technology Enhanced Learning (NPTEL)

The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003. Five core disciplines were identified, namely, civil engineering, computer science and engineering, electrical engineering, electronics and communication engineering and mechanical engineering and 235 courses in web/video format were developed in this phase.

The main goal of NPTEL Phase II (2009-14) was to build on the engineering and core science courses launched previously in NPTEL Phase I. An additional 600 web and video courses were created in all major branches of engineering, physical sciences at the undergraduate and postgraduate levels and management courses at the postgraduate level. Several improvements such as indexing of all video and web courses and keyword search were implemented.

Many students as well as faculties completed various NPTEL courses and passed with flying colors.

BHAVESH MALI	Laws of thermodynamics	Successfully completed
DEEPAK SONI	Laws of thermodynamics	Elite
LOKESH KUMAR	Introduction to Programming in C	Successfully completed
LOKESH KUMAR	Laws of thermodynamics	Successfully completed
MANISH CHOUDHARY	Laws of thermodynamics	Successfully completed
PRADEEP KHARADI	Laws of thermodynamics	Successfully completed
SHUBHAM KUMAR	Strength of materials	Successfully completed

Placements

Company Name	Name of Student	Branch	Pakage
The Oberoi Udaivilas (Udaipur)	Rajdeep Singh	AE	2.20 LPA
Byju's (The Leanring App)	Viplove Suthar	ME	10. 00 LPA
	Ayush Pandiwar	AE