(Managed by Shree Tapi Brahmcharyashram Sabha, Surat)

Tapi Diploma Engineering College

(Approved by AICTE, New Delhi & Affiliated to GTU, Ahmedabad)

(NBA Accredited)

अभिव्यक्ति

The word of expression.....
A Quarterly Newsletter

Newsletter 2024 | Volume-2 (April to June)

Vision

To build sound engineers with an orra of human values who are determined for social betterment

Mission

To develop the Tapi Diploma Engineering College into a "Center of Excellence" in the field of Technical Education by:

- Providing the state of art Laboratories & institutional facilities
- Encouraging students to study beyond the curriculum
- Creating an Environment for all round integrated personality development of students

Quality Policy

The knowledge oriented system & excellent teaching faculty of the institute, develop a learning environment for all and foster continues improvement in the quality of academic work. Also recognize and improve the skill of student through various curricular & co-curricular activities.

Governing Body

Dr. Bankimbhai R. Thakar
President

Dr. Vajubhai G. Mavani
Vice-President

Shri Hemantbhai J. Topiwala
Hon. Secretary

Shri Dineshbhai R. Navadiya
Treasurer

Dr. Kanubhai G. Mavani
Trustee

Shri Jivrajbhai P. Surani
Trustee

Shri Babubhai V. Kotadiya
General Manager

From the desk of Principal

Congratulations to all 6th sem students for their excellent results in 6th sem GTU examination. I heartily congratulate to all 6 semester students who have placed in various Industries during the campus interview. Tapi Diploma Engineering College also provides opportunity for all students to participate in the entrepreneurship and start up program arranged by Gujarat innovation & start-up centre at Surat which is under students starts up innovatio n policy. Student should have focused on New Era problems try and to find solution on the problems through the start-up. Government is very much supporting in this field as India need lots of start up to become a develop country in future many opportunities are opening up for India. Engineering to grab their opportunities. student has to work hard and should show the sincerity to address the problems & also change their mind set you all are very much fortunate that you are youth in such period which has maximum facility available which were never before on this planet wish you all the best for your future endeavour.

Dr. Y.S. Choupare

Principal

Student Industrial Visit

An industrial visit was arranged by Automobile Engineeing Department at S.K. Engineering for the Fourth semester students to understand Metal working process under the Automobile Manufacturing Technology subjects on 09-04-2024.

An industrial visit was arranged by Mechanical Engineeing Department at S.K. Engineering for the Fourth and Sixth semester students under the ME-II and CAD/CAM subjects on 22-04-2024.

An industrial visit was arranged by IT Engineering Department at VijayHO IT solution company, Surat for the Fourth semester students on 23-04-2024.

Student Industrial Visit

An industrial visit was arranged by IT Engineering Department at Webito Infotech, Suratfor the Sixth semester students on 25-04-2024.

An industrial visit was arranged by Electrical Engineeing Department at Sai Sales Corporation for the Fourth semester students under the Distibution and Utilization of Electrical Power subjects on 27-04-2024.

Student Industrial Visit

An industrial visit was arranged by Electrical Engineeing Department at HDE Pvt. Ltd. for the Fourth semester students under the Distibution and Utilization of Electrical Power subjects on 27-04-2024.

An industrial visit was arranged by Computer Engineeing Department at Skillcode Technologies for the second semester students to understand How IT Industry worksand new technology available in real world under the various langauges and frameworks on 04-05-2024.

An industrial visit was arranged by Chemical Engineeing Department at Jay Metal Tech for the second semester students to understand process and equipments under the CME workshop and M.S.&T subjects on 30-05-2024.

Expert Lecture

An Expert lecture was delivered by Mr. Mayur Vaishnav, Mr. Ashish Solanki and Mr. Chirag Kanani (R&W Multiledia Education Pvt. Ltd., Surat) on "Artificial Intelligence" to the Fourth semester Computer students on 09-04-2024.

An Expert lecture was delivered by Mr. Akash Vastpara (Founder & Head of Growth, IT Academy) to the Fourth semester students of IT Engineering Department on "SEO & Digital Marketing" under the subject of Essential of Digital Marketing on 16-04-2024.

An Expert lecture was delivered by Prof. H. B. Mehta (Mechanical Engineering Department, SVNIT, Surat) on "A Novel loop heat pipe based BTMS system for HEVs" to the Fourth and Sixth semester Automobile students on 23-04-2024.

Beyond Curriculum Lectures

Content beyond curriculum lecture was delivered by Mr. Mitul V. Patel (H.O.D. Computer Engineering Department) on "Artificial Intelligence tools" to his sixth semester students on 26-04-2024.

Content beyond curriculum lecture was delivered by Mr. Nishant M. Raval (Lecturer, Computer Engineering Department) on "Deepfake basics and its security implications" to his sixth semester students on 26-04-2024.

Beyond Curriculum Lectures

Content beyond curriculum lecture was delivered by Ms. U.Y. Bavadiya (Lecturer, Chemical Engineering Department) on "DCS & PLC system" to her sixth semester students on 01-05-2024.

Content beyond curriculum lecture was delivered by Mr. V. R. Sabhaya (H.O.D. Automobile Engineering Department) on "Utilization & Application of waste heat recovery from Vehicle" to his second semester students on 06-05-2024.

Hands on Session

Hands on session was conducted by Mr. Darshan Chauhan (Durvasa Infotech, Surat) on "API database connectivity and CURD operations in NodeJS" for the Fourth semester Computer Engineering students on 17-05-2024.

Technical Talk

Lecture under the Technical talk was delivered by Mr. Nishant M. Raval (Lecturer, Computer Engineering Department) on "Deepfake basics and GAN model" to the faculty members of Computer Engineering Department on 06-04-2024.

Project Fair

Project fair was arranged by ISTE committeee on 20-04-2024 for the final year students of all branches.

ISTE

Poster presentation competition was arranged by ISTE student chapter on 09-05-2024 for the second semester students of all branches.

Institution's Innovation Council



A competition was arranged by the IIC committee for all the second semester students of all branches to showcase any technical innovative business idea on 09-05-2024.




A session was arranged by the IIC committee for all the second semester students of all branches on "How to plan for start up and ethical steps" on 22-05-2024.

Student's Achievements

TDEC girls team won Final match and become University Champion in GTU Volleyball tournament organized by GTU at SVIT, Vasad on 05-04-2024.

TDEC boys cricket team achieved Runner-up position in the GTU Inter college cricket tournament 2024 (South zone) organized at CKPCET, Surat on 10-04-2024.

TDEC boys cricket team achieved Runner-up position in the GTU Inter college cricket tournament 2024 organized at GPERI, Mehsana on 01-05-2024.

Student's Achievements

Sixth and Fourh semester students of Computer Engineering Department have participated in Creato Hackathon 2024 at BBIT, Vallabha Vidhyanagar on 19-04-2024 and win a trophy in "Idea having revenue generation capability" category.

LODALIYA YUGBHAI NITINBHAI
COMPUTER DEPTT.
Prize: Rs. 3000/-

BHISRA PARTHIK JITENDRABHAI
MECHANICAL DEPTT.
Prize: Rs. 3000/-

BHINSARA KRISH RAJESHBHAI
MECHANICAL DEPTT.
Prize: Rs. 3000/-

Following students have participated in Gujarat Gyan Guru Quiz organized by KCG, Gujarat and each student won Rs. 3000 as a cash prize in the quiz on 29-04-2024.

Training & Placement

An Aptitude and technical session on the topic "Series" was delivered by Mr. K.S. Chavda (Lecturer, Chemical Engineering Department) for his Fourth semester Chemical Engineering students on 05-04-2024 and 26-04-2024.

Technical session on the topic "FFO&MO Part-II" was delivered by Mr. K.S. Chavda (Lecturer, Chemical Engineering Department) for his Fourth semester Chemical Engineering students on 29-04-2024.

Training & Placement

SR. NO	NAME OF STUDENT	DISCIPLINE	NAME OF EMPLOYER
1	PATEL RAJVEER GIRISHKUMAR	AUTOMOBILE	TATA PASSENGER ELECTRIC MOBOLITY LIMITED, SANAND
2	BUDHDEO PRATHAM RISHIRBHAI	AUTOMOBILE	TATA PASSENGER ELECTRIC MOBOLITY LIMITED, SANAND
3	RAIYANI HEMAL NARESHBHAI	AUTOMOBILE	TATA PASSENGER ELECTRIC MOBOLITY LIMITED, SANAND
4	MANGUKIYA DARSH RAKESHBHAI	AUTOMOBILE	TATA PASSENGER ELECTRIC MOBOLITY LIMITED, SANAND
5	MO SHAFIK SIKANDAR RANGUNI	CHEMICAL	CEAT TYRE LIMITED, HALOL
6	LADOLA DAX DINESHBHAI	CHEMICAL	CEAT TYRE LIMITED, HALOL
7	DHANANI PRINCE RAMESHBHAI	CHEMICAL	UPL LIMITED, ANKLESHWAR
8	DHARMIK VIPULBHAI TRIVEDI	CHEMICAL	RELIANCE INDUSTRIES LIMITED, HAZIRA
9	SWARNLATA NARAHARI PATRA	CHEMICAL	TDS LITHIUM ION BATTERY GUJARAT PRIVATE LIMITED, BECHARAJI
10	SWARNLATA NARAHARI PATRA	CHEMICAL	CEAT TYRE LIMITED, HALOL
11	MOHAMMED OWAISH ABBASBHAI AMBALIYA	CHEMICAL	ACADEMY FOR SKILL DEVELOPMENT (ARCELOR MITTAL NIPPON STEEL INDIA, HAZIRA)
12	KRUPAL BHUPENDRABHAI GONDALIYA	CHEMICAL	RELIANCE INDUSTRIES LIMITED, HAZIRA
13	NURULAIN MOINUDDIN SAIYED	CHEMICAL	ACADEMY FOR SKILL DEVELOPMENT (ARCELOR MITTAL NIPPON STEEL INDIA, HAZIRA)
14	PATEL JAIVAL KIRITBHAI	CHEMICAL	UPL LIMITED, ANKLESHWAR
15	ANISHKUMAR RANJEET SINGH	CHEMICAL	SHAKTI DISTILLARY PVT LTD, SACHIN
16	SAPOVADIYA SAMARTH RITESH	ELECTRICAL	HEAVEN DESIGNS PRIVATE LIMITED, SURAT
17	ZADAFIYA YUG MANISHBHAI	ELECTRICAL	ACADEMY FOR SKILL DEVELOPMENT (ARCELOR MITTAL NIPPON STEEL INDIA, HAZIRA)
18	KHICHADIYA MAITRI GHNSHYAMBHAI	ELECTRICAL	ACADEMY FOR SKILL DEVELOPMENT (ARCELOR MITTAL NIPPON STEEL INDIA, HAZIRA)
19	CHAUHAN MIHIR VRAJLAL	ELECTRICAL	DIAMTECH RESEARCH CENTRE PRIVATE LIMITED, SURAT
20	PRAJAPATI VRUSHIK HASMUKHBHAI	ELECTRICAL	CEAT TYRE LIMITED, HALOL
21	SINGH PRATYUSH PRAKASH	ELECTRICAL	CEAT TYRE LIMITED, HALOL
22	SAVANI DHRUVIL HARESHBHAI	MECHANICAL	TATA PASSENGER ELECTRIC MOBOLITY LIMITED, SANAND
23	ANKURKUMAR CHANDRAWANSHI	MECHANICAL	L&T HEAVY ENGINEERING, HAZIRA
24	BHAYANI MANAN RAJUBHAI	MECHANICAL	CEAT TYRE LIMITED, HALOL
25	BHINSARA KRISH RAJESH	MECHANICAL	HEAVEN DESIGNS PRIVATE LIMITED, SURAT
26	FITWALA DHRUVIL KALPESH	MECHANICAL	CEAT TYRE LIMITED, HALOL
27	FITWALA DHRUVIL KALPESH	MECHANICAL	SUPERHARD RESEARCH CENRE PRIVATE LIMITED, SURAT
28	FITWALA DHRUVIL KALPESH	MECHANICAL	TATA PASSENGER ELECTRIC MOBOLITY LIMITED, SANAND
29	GANDHI SUJAL HITESH	MECHANICAL	TATA PASSENGER ELECTRIC MOBOLITY LIMITED, SANAND
30	GODHANI DEEP BHUPATBHAI	MECHANICAL	ACADEMY FOR SKILL DEVELOPMENT (ARCELOR MITTAL NIPPON STEEL INDIA, HAZIRA)
31	KHALASI KUSHANKUMAR KALPESHBHAI	MECHANICAL	ARCELORMITTAL DESIGN & ENGINEERING CENTER (P) LIMITED, HAZIRA
32	LUHAR BHASKAR KISHOR BHAI	MECHANICAL	ACADEMY FOR SKILL DEVELOPMENT (ARCELOR MITTAL NIPPON STEEL INDIA, HAZIRA)
33	PARMAR KARAN CHAMPALAL	MECHANICAL	ACADEMY FOR SKILL DEVELOPMENT (ARCELOR MITTAL NIPPON STEEL INDIA, HAZIRA)
34	PARMAR KARAN CHAMPALAL	MECHANICAL	ARCELORMITTAL DESIGN & ENGINEERING CENTER (P) LIMITED, HAZIRA
35	PAWAR NIMESH LAXMANBHAI	MECHANICAL	CEAT TYRE LIMITED, HALOL

Article

3D Printing in the Automotive Industry

3D printing or additive manufacturing is the construction of a three-dimensional object from a CAD model or a digital 3D model.It can be done in a variety of processes in which material is deposited, joined or solidified under computer control, with the material being added together (such as plastics, liquids or powder grains being fused), typically layer by layer.

Bugatti is the technological leader in the field of metal 3D printing. Bugatti Chiron, the hyper sports car has been fitted with the industry's first series-produced metal 3D-printed functional component: a small, water-carrying high-pressure pump. The world's largest 3D-printed titanium component, a titanium brake calliper, and hybrid functional assembly made of the 3D-printed titanium and coiled carbon made by Bugatti.

Porsche has recently introduced a new concept for sports car seating that leverages 3D printing and lattice design. The new seats feature polyurethane 3D-printed central seat and backrest cushion sections, which can be customised by three firmness levels: hard, medium and soft. Apart from seat, they are also manufacturing the engine piston using 3D printing technology.

Rolls Royce has recently showcased the capabilities of 3D printing for brackets. The company showed off the large batch of DfAM-optimised and 3D-printed automotive metal parts, many of which look to be brackets.

Ford Motor Company is one of the earliest adopters of 3D printing. Ford's Shelby GT500 will also feature two structural 3D-printed brake components and wheel locking nuts created using Carbon's Digital Light Synthesis (DLS) 3D printing technology and EPX (epoxy) 82 material.

Local Motors unveiled Olli, a 3D-printed, autonomous electric shuttle designed for local, low-speed transportation. The shuttle has been designed primarily for use in urban centres in cities, business and university campuses and hospitals.

In partnership with Stratasys and Japanese manufacturer Daihatsu's customers can design and order custom 3D-printed panels for their front and rear bumpers, with a choice of more than 15 base patterns in 10 different colours.

Swiss manufacturer Alfa Romeo Sauber F1 Team is reported to have used a 60% scale model of a Formula 1 race car, with many of its components 3D printed with SLS and SLA technologies.

Volkswagen, which has been using 3D printing in-house for a number of years, has began to pilot Ultimaker's desktop 3D printers to produce tooling equipment. Since the success of the pilot, Volkswagen has switched its tooling production almost entirely to 3D printing. Volkswagen Motorsport, which used 3D printing for the development of its electric I.D. R Pikes Peak race car. Having only eight months to develop the car.

Advantages

1. Easy to create highly customized and personalized products.
2. Complex geometry can easily manufactured without increasing the production cost.
3. Material wastage reduced.
4. Suited for low volume production.
5. Creates custome tooling and jigs for various manufacturing processes.
6. Fast design and production.
7. Strong and light weight parts.
8. Reduced production cost.

Mr. V.R. Sabhaya
I.C. H.O.D. Automobile Engineering

Founder of Trust

Shree Swami Atmanand Saraswati

Newsletter Committee

Dr. Y.S. Choupare
Principal

Mr. V.R. Sabhaya
Head, Automobile Department

Students Committee

Ranpariya Jenish
3rd Sem., Automobile

Purohit Milin
3rd Sem., Automobile

Tadhani Kush
3rd Sem., Automobile

Kachhadiya Harshvardhan
3rd Sem., Automobile

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