



# DEPARTMENT OF MECHANICAL ENGINEERING

VOLUME-4 | ISSUE-1



Yogeshwar Nagar, Valsad, Gujarat 396001, India

## MECHAVEERSE

### JAN-JUNE

### 2024

GOVERNMENT POLYTECHNIC, VALSAD  
BHAGDAWADA, KOSAMBA ROAD  
VALSAD, GUJARAT-396002

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## VISION AND MISSION

### Vision

To be one of the well recognized department by inculcating technical knowledge and professional skills according to evolving demand of the industries in social interest.

### Mission

**M1:** To become a model department for an outcome based education by adopting best practices in the field of mechanical engineering.

**M2:** To develop creative thinking, problem solving ability and interpersonal skills in students to overcome professional challenges by providing conducive environment.

**M3:** To interact with industries to achieve employer focused learning by providing technical expertise and training to students on advanced technologies.

**M4:** To develop responsible citizens by promoting social activities and awareness of environmental issues.

# MESSAGE FROM HOD'S DESK



Dear Students and stakeholder,

Greetings from the Mechanical Engineering Department, G.P. Valsad. As we mark the midpoint of 2024, I am delighted to highlight our department's notable achievements in 'MECHAVERS", our newsletter, covering January to June 2024.

This period has been defined by remarkable growth and collaboration. Our Department Advisory Board, comprising industry and academic experts, has played a pivotal role in bridging the gap between industry needs and curriculum, advancing knowledge and excellence in mechanical engineering.

To our students, your hard work and dedication continue to inspire us. Whether it's through your academic achievements, participation as well as involvement in co-curricular and extracurricular activity. We are also proud of those who secured job placements in leading companies like L&T Defence, Atul Ltd, L & T Precision Engg. and system, Global Nelson Ltd., Meril Life Science and Kipra Electrical Pvt., Ltd., etc.

To our valued stakeholder like alumni & Industrialist your support has been instrumental in our progress. Through continuous guidance and participation, you have helped us to improve quality of the student's projects through participation in project evaluation/exhibition and also to give Industry visit, expert talk and internship.

Together, we are shaping the future of mechanical engineering students through innovation and entrepreneurship. I look forward to another period of success and collaboration.

Thank you for being part of our journey.

**Mr. Bhavesh N. Patel**

**HOD, Mechanical Engg., G. P. Valsad**

# MECHAVEVERSE

DEPARTMENT OF MECHANICAL ENGINEERING  
GOVERNMENT POLYTECHNIC, VALSAD



Jan-June-2024



## Top News



Student's Achievement:

Mr. Sakir Shaikh was awarded the title of Best speaker of the college at Zonal level competition organized at VNSGU, Surat.

VIBRANT GUJARAT SUMMIT-2024 :  
Mr. H. B. Patel and Mr. R. M. Pipaliya participated in seminar at Vibrant Gujarat Summit-2024

## Department Advisory Board's (DAB) Meeting held in April 2024

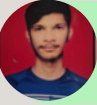
The Department of Mechanical engineering of Government Polytechnic Valsad arranged "Department Advisory Board (DAB) meeting for validating identified Curriculum Gaps/Contents beyond the syllabus" on 29th April, 2024. The meeting attended by Mr. Harshi Sankdecha, Industry expert, Mr. Ramesh Fuletra, Industry expert, Mr. Divyesh Dalal, Industry expert, Prof. Sanath Damania, Academic expert, Prof. Sandip Patel, Academic expert, Smt. Rinku Shukla, Principal and Mr. Bhavesh Patel, HOD mechanical Engineering



Vibrant Gujarat Summit-2024

# CAMPUS PLACEMENT

ACADEMIC YEAR : 2023-2024

STUDENT NAME	COMPANY	PACKAGE/ANNUM
 216290319026 Shukla Dhruv Pankanjibhai	L&T Defence, Hazira	273348/-
 216290319061 SHAIKH SHAKIR SAJIDBHAI	ATUL Ltd., VALSAD	272400/-
 216290319003 Mahato Rahul Sanjaykumr	ATUL Ltd., VALSAD	272400/-
 216290319074 Mali Jaykishan Bhagvanbhai	ATUL Ltd., VALSAD	272400/-
 216290319016 Patil Sagar Ramchandra	Global Nelson Ltd.	168000/-
 216290319010 Patel Ronak Rakeshbhai	L&T Precision engg. And system, Surat	144000/-
 216290319013 Vinay Vinod Rathod	L&T Precision engg. And system, Surat	144000/-
 216290319001 Fitter Amaan Vakarahmed	MERIL LIFE SCIENCE	138528/-
 216290319015 Himanshu Ganesh Swami	Kipra electrical pvt, Ltd. Bagvada	120000/-

**OUR  
MAJOR  
RECRUITERS**



# UPGRADATION OF STUDENTS LAB FACILITIES



PELTON WHEEL TURBINE TEST RIG



METALLURGICAL MICROSCOPE



ROCKWELL HARDNESS TESTER

PELTON WHEEL TURBINE TEST RIG

METALLURGICAL MICROSCOPE

ROCKWELL HARDNESS TESTER

## Lab Upgradation: Enhancing Student Experience

In the financial year 2023-24, the Mechanical Engineering Department underwent significant laboratory enhancements thanks to the generous **Vikaslakshi State Government grant**. Our institution is pleased to announce the addition of cutting-edge lab equipment to enhance student learning experiences. This upgrade strengthens our commitment to providing state-of-the-art facilities for academic excellence."



ELECTRICAL MUFFLE FURNANCE



MEASURING INSTRUMENTS



MAINTENANCE OF FOUR STROKE PETROL ENGINE

ELECTRICAL MUFFLE FURNANCE

MEASURING INSTRUMENTS

MAINTENANCE OF PETROL ENGINE

## TOTAL GRANT UTILISED:

EQUIPMENT PURCHASE : RS. 3,32,396/-

MAINTENANCE WORK : RS. 20,000/-

# INDUSTRY-INSTITUTE INTERACTION

## INDUSTRY VISIT AT UKAI HYDRO POWER STATION AND THERMAL POWER STATION



The Department of Mechanical engineering of Government Polytechnic Valsad organized Industrial visit at **Ukai Hydro Power Station and Thermal Power station** for 6th Semester students as on 22nd March 2024. The purpose of Industrial visit to learn about various flow path system in thermal power plant and understand better the concept of Hydro and Thermal power plant practices.



## INDUSTRY VISIT AT D.G. INDUSTRIES

An industrial visit has been organised at **D. G. Industries Valsad and Modern Materials Valsad** for 4th semester students on 20th April 2024. The purpose of visit was to understand how to fabricate Material Handling Equipment. Student have seen different types of material handling equipment like hand pellet trucks, stackers, drum equipment, lift tables, hand tucks and trolley etc.

## INDUSTRY VISIT AT TECHNO GEAR



An industrial visit at **TECHNO GEAR Valsad** for the 6TH semester students on 16th march 2024. During this visit, TECHNO GEAR expert have introduce about the different sections of the industry. First section was about turning section, second section was about gear cutting and last section was gear finishing. Different manufacturing processes like gear milling ,gear hobbing process were shown by expert of industry.



# INDUSTRY-INSTITUTE INTERACTION



## INSPIRING ENTREPRENEURIAL SPIRITS: ALUMNI SUCCESS STORY

The Department of Mechanical Engineering organized one session on "Successful story of an alumni Entrepreneur" on 30th April 2024 delivered by Mr. Bhavik Mistry, Company owner Heer water technology Bardoli for 2nd, 4th & 6th semester students.



## INDUSTRY EXPERT ENLIGHTENS STUDENTS ON PRODUCTION PLANNING & CONTROL

On February 13, 2024, Mr. Krunal Tandel, Senior Executive at NHB Ball and Roller Pvt. Ltd., addressed Mechanical Engineering students on "Production Planning and Control." Mr. B.N. Patel, HOD, welcomed the expert. Key takeaways included coordinating production plans, optimizing inventory, equipment usage and plant morale."

# INDUSTRY-INSTITUTE INTERACTION

## FIRE SAFETY & EVACUATION TRAINING WORKSHOP



The Department of Mechanical Engineering, Government Polytechnic Valsad, organized a one-day technical workshop **“Fire safety & Evacuation Training”** on April 2, 2024, for fourth-semester students. Expert **Mr. Akshay Patel** from Sapna Corporation covered critical topics, including fire causes, emergency routes, fire detection and fighting equipment. A mock drill demonstrated evacuation procedures and fire extinguisher usage."

# INDUSTRY-INSTITUTE INTERACTION

## STAFF INDUSTRIAL TRAINING



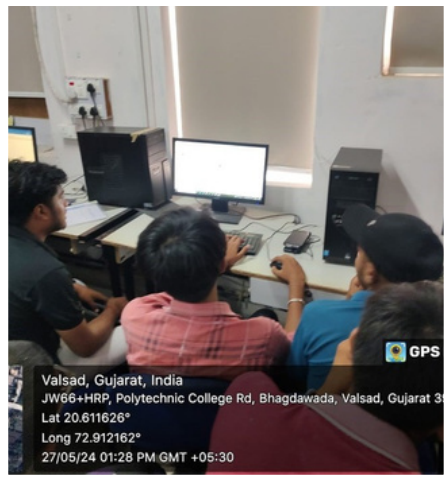
The Six Mechanical Faculties have taken 3-week Industrial Training at **GSECL-Utran Gas based Power Station** (5 faculties) & **Mech Engineers, Valsad**(1 Faculty) under Career Advancement Scheme under 7th pay revision commission from duration 10-06-2024 to 29-06-2024.

### Learning Outcomes:

- Gain hands on experience in industrial environment.
- Learn about the latest advancements and best practices in industry.
- engage with team of experts and professionals.



# DEPARTMENT ACTIVITIES



## VIRTUAL LAB WORKSHOP ON “FLUID MACHINERY LAB & FLUID MECHANICS LAB”

The Department of Mechanical Engineering conducted a **Virtual Lab Workshop** on '**Fluid Machinery and Fluid Mechanics Labs**' for the Fluid Mechanics and Hydraulic course (4341903) on May 27, 2024, coordinated by Mr. C.V. Patel and Mr. T.N. Ansari, with 33 student participants.

## VIRTUAL LAB WORKSHOP ON “3D PRINTING VIRTUAL SIMULATION LAB”

The Department of Mechanical Engineering conducted a **Virtual Lab Workshop** on '**3D Printing Virtual Simulation Lab**' for Manufacturing Engineering-III students on April 25, 2024, coordinated by Mr. R.J. Patel and Mr. T.N. Ansari, with 33 participants.



## ONE-DAY WORKSHOP FOR FINAL YEAR STUDENTS ON 3D PRINTING

The Department of Mechanical Engineering at Government Polytechnic Valsad conducted a one-day workshop on '**3D Printing technology**' for 6th semester students at ITI Valsad on March 14, 2024, focusing on material selection, CAD design and printer operation.



# DEPARTMENT ACTIVITIES



## INDIA'S TECHADE : "CHIPS FOR VIKSIT BHARAT"

On March 13, 2024, the Mechanical Engineering Department facilitated a live broadcast of the Education Department, Government of Gujarat's program, '**India's Techade: Chips for Viksit Bharat**,' to all students through the YouTube channel at NB-04, A-Block.

## DIPLOMA ADMISSION AWARENESS PROGRAM ORGANIZED FOR SCHOOL STUDENTS IN VALSAD DISTRICT

The Mechanical Engineering Department organized a Diploma Admission Awareness Program at **Shah GMD Sarvajani High School, Motaponcha, Kaprada** on January 3, 2024, led by Mr. H.B. Patel, HOD, and faculty members P.C. Makwana, LME, and R.M. Pipaliya, LME.



## IMPROVEMENT CLASSES FOR WEAKER STUDENTS

To enhance academic performance, our department conducted **improvement classes** specifically designed for students poorly performance in the Mid Semester examination.



# DEPARTMENT TOPPER

*Congrats!*

## 5TH SEMESTER GTU WINTER 2023 EXAMINATION



RANK 1

*Canva*

**MALI JAYKISHAN  
BHAGWANBHAJI**



RANK 2

*Canva*

**MAHATO  
RAHULKUMAR  
SANJAYKUMAR**



RANK 3

*Canva*

**SHAIKH SHAKIR  
SAJIDBHAI**

# DEPARTMENT TOPPER

**Congrats!**

## 3RD SEMESTER GTU WINTER 2023 EXAMINATION



**RANK 1**

*Canva*

**Jalaj Mishra**

**RANK 2**

*Canva*

**Denzil Chetankumar  
Gandhi &  
Patel Dhruv Mukeshbhai**

**RANK 3**

*Canva*

**Patel Chirag Uttambhai**

# DEPARTMENT TOPPER

*Congrats!*

## 1ST SEMESTER GTU WINTER 2023 EXAMINATION



**RANK 1**

*Canva*

**PATEL SHIV  
JAYANTILAL**

**RANK 2**

*Canva*

**DANDGE RAKESH  
PRAMOD**

**RANK 3**

*Canva*

**PATEL MITESHKUMAR  
MANGUBHAI**



# Felicitations to Brighter Students 5th SEM

## Rank 1

Mali Jaykishan Bhagwanbhai

SPI-9.30



## Rank 2

Mahato Rahul Sanjaykumar

SPI-9.15



## Rank 3

Shaikh Shakir Sajidbhai

SPI-9.10



# Felicitations to Brighter Students 3rd SEM

## Rank 1

Jalaj Mishra

SPI-8.87



## Rank 2

Denzil Chetankumar Gandhi  
Patel Dhruv Mukeshbhai

SPI-8.35



## Rank 3

Patel Chirag Uttambhai

SPI-8.00



# Felicitations to Brighter Students 1st SEM

## Rank 1

Patel Shiv Jayantilal

SPI-8.10



## Rank 2

Dandge Rakesh Pramod

SPI-8.05



## Rank 3

Patel Mitesh Mangubhai

SPI-8.00



# PROJECT EXHIBITION

Date: 30-04-2024, Project prepared by the students of 6th semester was exhibited in Project Exhibition. Students project was evaluated by industrial experts.



FIRST RANK, PROJECT TITLE: POWER GENERATION THROUGH GYM EQUIPMENT



SECOND RANK, PROJECT TITLE: ROBOTIC ARM WITH SIX DOF



THIRD RANK, PROJECT TITLE: SOLAR PANEL CLEANING SYSTEM

*“ EVERY PROJECT IS AN OPPORTUNITY TO LEARN, TO FIGURE OUT PROBLEMS AND CHALLENGES, TO INVENT AND REINVENT. ”*

*- DAVID ROCKWELL*



# GLIMPSES OF PROJECT EXHIBITION 2024



30/04/2024

# STUDENT PARTICIPATIONS & ACHIEVEMENTS



## **Student Achievements: First Rank In Elocution Competition**

Mr. Sakir Sajidbhai Shaikh (Enrollment: 216290319061) has been awarded the title of Best speaker of the college for delivering the Best speech on protecting cultural and moral values in society at Zonal level competition organized at English Department, Seminar Hall, VNSGU Surat on 3rd February 2024.

## Student Achievements:

### CHAMPION OF GTU ZONE & INTERZONE SEASON CRICKET TOURNAMENT



## ક્રિકેટ ટૂર્ના.માં વલસાડ પોલિ.ની ટીમ વિજેતા

। વલસાડ ।

ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી દ્વારા આયોજીત જીટીયુ સ્પીરીટ-૨૦૨૪માં સિઝન ક્રિકેટ આંતરઝોન ટૂર્નામેન્ટ જીપીઈઆરઆઈ મહેસાણા ખાતે યોજાઈ હતી. જેમાં સરકારી પોલીટેકનીક વલસાડ કોલેજ તાપી કોલેજને પરાજીત કરીને વિજેતા બની હતી.

આ ક્રિકેટ ટૂર્નામેન્ટમાં રાજ્યની તમામ કોલેજોના ઝોનની વિજેતા અને ઉપવિજેતા મળી કુલ ૧૦ ટીમોએ ભાગ



લીધો હતો. જેમાં સુરત ઝોનની વિજેતા ટીમ સરકારી પોલીટેકનીક વલસાડ અને તાપી ડિપ્લોમા કોલેજ સુરતની

ટીમ વચ્ચે તા.૦૧-૦૫-૨૪ના રોજ રમાયેલી ફાઈનલ મેચમાં સરકારી પોલીટેકનીક વલસાડની ટીમે ઝોનનું

ઉત્કૃષ્ટ પ્રદર્શન કર્યું હતુ. આ ટીમે તાપી કોલેજની ટીમે આપેલા ૧૦૬ રનના લક્ષ્યાંકને ૦૫ વિકેટ બાકી રાખીને ૧૧.૫ ઓવરમાં હાંસલ કરીને વિજેતા બની હતી. તેમની અસિધ્ધિ બદલ સરકારી પોલીટેકનીક વલસાડના પ્રિન્સીપાલ આર.આર. શુક્લાએ વિજેતા ટીમ તથા જીમખાન હેડ તરૂણ બી.પટેલ, સ્પોર્ટ્સ કોઓર્ડીનેટર ધીરેન પી.પટેલ તથા જીમખાના મેમ્બર પ્રદિપ બી.ગાંવિતને શુભેચ્છાઓ પ્રાઠવી છે.

# CHAMPIONS





MAYANK JAGDISHBHAI MACHHI (2ND SEM)  
MAN OF THE MATCH: FINALS



HET SATISHBHAI BHAVSAR (4TH SEM)  
BEST BOWLER OF TOURNAMENT



KHUSH NARENDRABHAI PATEL (4TH SEM)



HIT KANTILAL PATEL (4TH SEM)  
MAN OF THE MATCH: SEMIFINALS

## GTU's Inter zone Season Cricket Tournament : Our College Emerges Victorious!

We are thrilled to announce that our college has clinched the coveted title of Champion at the Interzonal Season Cricket Tournament, organized annually by Gujarat Technological University (GTU). This impressive feat was achieved after intense competition among 60 participating colleges. The thrilling finals were hosted by GPERI, Mehsana.

Our department's talented students showcased exceptional skill and determination, bagging prestigious awards. **Het Bhavsar** was declared the Best Bowler, while **Mayank Machhi** earned the coveted Man of the Match title in the finals for the zonal and interzonal rounds.



# Student Achievements : GPV "Udaan" The Sports Festival -2024



**Champions & Runners Up  
in Kabaddi**



**Champions & Runners Up  
in Cricket**



**Champions in 3 Pass  
volleyball**



## Students Shine in Khelmahakum 2.0 Volleyball Tournament

Our talented students, Mr. Shiv J. Patel, Mr. Anand G. Maurya and Mr. Manan J. Patel, showcased exceptional skills, clinching the championship title at the Dharampur Taluka level Khelmahakum 2024 Volleyball Tournament.

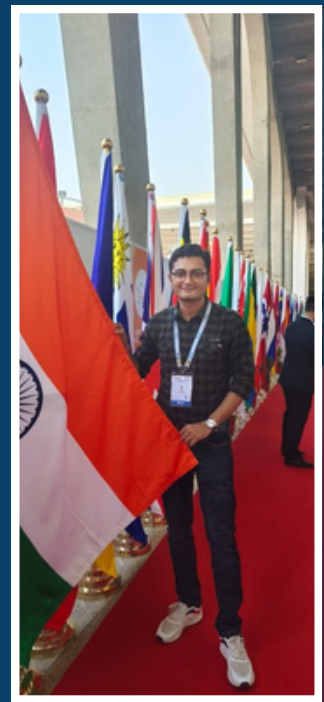


## Student's Participation in Start-Up & Innovation Seminar



Our department Six student's has participated in Seminar on " Start-Up & Innovation Training and Awareness Seminar" held on 30th January, 2024 at Shah N. H. Commerce College, Valsad .

# FACULTY PARTICIPATIONS & ACHIEVEMENTS



## VIBRANT GUJARAT SUMMIT- 2024

The two staffs H. B. Patel, HOD and R. M. Pipaliya, Lecturer of Mechanical Engineering Department was participated in the Seminar of **“Building Workforces for future: Development of Skills Industry 4.0”** organised in the Vibrant Gujarat 2024 summit on 11th January 2024.



MR. B N. PATEL, HOD MECHANICAL ENGG.  
MENTOR DR. SS&G. SURAT



MR. H. B. PATEL, HOD MECHANICAL ENGG.  
MENTOR G. P. WAGHAI

### Appreciation for Exceptional Mentorship

We proudly acknowledge **HODs B.N. Patel and H.B. Patel's** exceptional mentorship, leading Dr. S&SS Gandhi College, Surat, and G.P. Waghai College to successful NBA Re-Accreditation, under the auspices of Head CTE Office, Gandhinagar."

### Participation in Workshop on Designing Learner Centric MOOCs



**Mr. Rajnikumar Manubhai Pipaliya**, Lecturer participated in One day Workshop on “ **Designing Learner Centric MOOCs**” at IIT Gandhinagar on 16th March 2024.



MR. TARUN BABUBHAI PATEL, LME  
GYMKHANA COORDINATOR



MR. DHIREN PRAKASHBHAI PATEL  
SPORTS COORDINATOR

### Appreciation for Outstanding Mentorship

We proudly acknowledge the instrumental roles of **Mr. Tarun Patel** and **Mr. Dhiren Patel** Mentor of our season Cricket team. Their tireless efforts in batting, fielding and bowling coaching propelled our team to victory.

### MOOC Course Achievement

**Elite**  
**NPTEL Online Certification**  
(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**DHIREN PRAKASH PATEL**  
for successfully completing the course  
**Training and Development**

with a consolidated score of **90** %

Online Assignments	24.38/25	Proctored Exam	66/75
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Total number of candidates certified in this course: **3405**

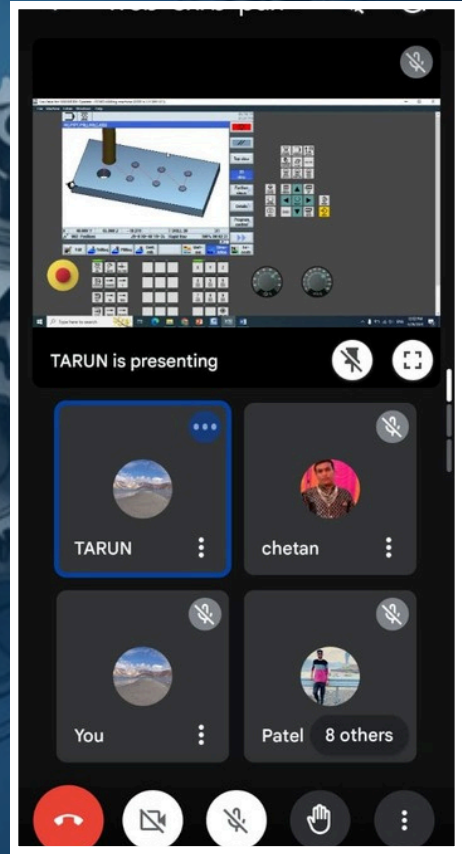
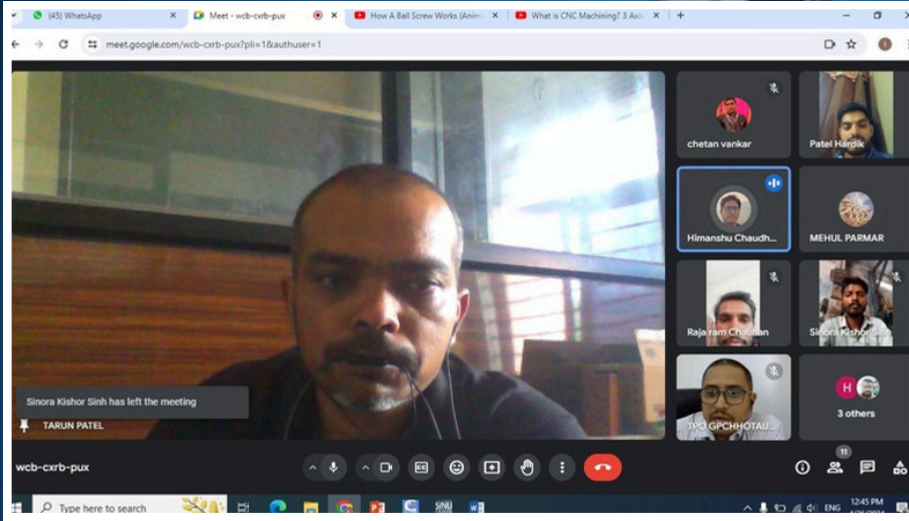
Jan-Apr 2024  
(12 week course)

*Haimanti Banerji*  
**Prof. Haimanti Banerji**  
Coordinator, NPTEL  
IIT Kharagpur

Indian Institute of Technology Kharagpur

Roll No: NPTEL24HS12S1167500021 To verify the certificate No. of credits recommended: 3 or 4

**Mr. Dhiren Prakash Patel** had successfully completed 12 week MOOC course on “**Training and Development**” from Jan-Apr 2024 with a remarkable Top 2% performance.



## Appreciation for Expert Lecture

**Mr. Tarun B. Patel**, Lecturer in Mechanical Engineering has delivered Expert lecturer on “ **CNC Part Programming with Simulation Software** ” for 6th semester students of Government Polytechnic, Chhotaudepur via online mode.

## Participation in Start-Up & Innovation Seminar



**Mr. Hemant B. Patel**, HOD and **Mr. Amar R. Shah**, Lecturer has participated in Seminar on “ **Start-Up & Innovation Training and Awareness Seminar** ” held on 30th January, 2024 at **Shah N. H. Commerce College, Valsad** .

# PARTICIPATIONS IN ROAD SAFETY AWARENESS PROGRAM

**વલસાડ દ્વારા વાહનચાલકોને રક્ષા સૂત્ર બાંધી કાર્યક્રમની શરૂઆત**

**વાત્સલ્યમુસમાચાર  
દિપક પટેલ-ભેરગામ**

તા. ૩૧/૦૧/૨૦૨૪ ના રોજ સરકારી પોલીટેકનિક વલસાડ, આરટીઓ વલસાડ તેમજ ટ્રાફિક પોલીસ ઓફિસ વલસાડના સંયુક્ત ઉપક્રમે વાહનચાલકોને વલસાડ શહેર ના અલગ અલગ સ્થળો જેવા કે હાલર ચાર રસ્તા, પરમુર ચોકડી, એસપી ઓફિસ, આઝાદ ચોક, કલ્યાણી ભાગ ચાર રસ્તા જેવા અનેક સ્થળોએ કોલેજના વિધાર્થીઓ અને અધિકારીઓએ હાથમાં રક્ષા સૂત્ર બાંધી અને ફલ આપી જિલ્લામાં વાહનચાલકો આ પ્રસંગે સંસ્થાના અધ્યક્ષ શ્રી ડો. એ સી પનેશ્વર સાહેબ એ સહકાર બદલ આરટીઓ વલસાડ અને જિલ્લા ટ્રાફિક પોલીસ નો આભાર વ્યક્ત ના નિયમો અંગે વધુ જાગૃતતા આવે, અકસ્માતો નિવારી રાકાય તેના માટે વલસાડ જિલ્લાના ગામડાઓમાં તેમજ શહેરી વિસ્તારોમાં અલગ અલગ



## Road Safety Awareness Program 2024: A Resounding Success

Our college Road Safety Program Coordination committee's initiative to promote road safety and traffic regulations resonated deeply with the community.



## Participations in Road Safety Awareness Program 2024

Our department's 24 faculty members and 20 students played a pivotal role in making this event a triumph.

# Professional Devopment

**Mr. B. B. Beladiya, Lecturer** has completed 12 week MOOC course on "**Leadership and Team Effectiveness**" via NPTEL online from Jan-Apr 2024.



**Mrs. K. S. Damania, Lecturer** has completed one week FDP on "**Automation in Manufacturing industries**" at NITTR Bhopal.

**Mr. H. S. Patel, Lecturer** has completed three trainings: **Sustainable approaches in engineering** 16-20 Jan 2024 at NITTR Extn., A'bad, **Industry 4.0 & 3D Printing: Future factory** from 19-24 Feb 2024 at Parul Institute of Technology, Vadodara and **Industrial training** from 10-29 June 2024 at GSECL, Utran Surat.



**Mr. R. J. Patel, Lecturer** has completed three trainings: **Artificial Intelligence** from 1-6 Jan 2024 at GEC Valsad, **Yoga and Positive Psychology for Managing Career and Life** from Jan-Mar 2024 and **Leadership and Team Effectiveness** from Jan-Apr 24 via NPTEL online.

**Mr. A. R. Shah, Lecturer** has completed three trainings: **Purchase Management, Tender and Quotation (GEM)** from 26 Feb - 1 Mar 2024 at NITTR Bhopal, **Leadership and Team Effectiveness** and **Training and Development** from Jan-Apr 2024 via NPTEL online mode.



**Mr. Deep R. Patel, Lecturer** has completed one week FDP on "**Manufacturing and testing of metals**" from 19-23 Feb 2024 at Dr S&SS Gandhi college Surat.

**Mr. T. N. Ansari, Lecturer** has completed 12 week MOOC course on "**Training and Development**" via NPTEL online from Jan-Apr 2024.



**Mr. A. D. Patel, Lecturer** has completed 12 week MOOC course on "**Yoga and Positive Psychology for Managing Career and Life**" via NPTEL online from Jan-Apr 2024.

**Mr. P. C. Makwana, Lecturer** has completed three weeks "**Industrial Training**" from 10 June - 29 June 2024 at GSECL Utran Gas based power station, Utran Surat.



**Mr. N. S. Rana, Lecturer** has completed three trainings: MOOC course "**Training And Development**" from Jan-Apr 2024, "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online and **Industrial training** from 10-29 June 2024 at GSECL, Utran Surat.



# Professional Devopment

**Mr. D. P. Patel, Lecturer** has completed two MOOC course "**Training And Development**" from Jan-Apr 2024 & "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online .



**Mr. S. K. Lad, Lecturer** has completed two MOOC course "**Training And Development**" from Jan-Apr 2024 & "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online.

**Mr. S. P. Tandel, Lecturer** has completed two MOOC course "**Training And Development**" from Jan-Apr 2024 & "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online.



**Mr. N. D. Vasava, Lecturer** has completed two MOOC course "**Training And Development**" from Jan-Apr 2024 & "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online.

**Mr. B. V. Chaudhry, Lecturer** has completed two MOOC course "**Training And Development**" from Jan-Apr 2024 & "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online.



**Mr. V. R. Patel, Lecturer** has completed two MOOC course "**Training And Development**" from Jan-Apr 2024 & "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online.

**Mr. R. M. Pipaliya, Lecturer** has completed three weeks "**Industrial Training**" from 10 June - 29 June 2024 at GSECL Utran Gas based power station, Utran Surat.



**Mr. R. S. Patel, Lecturer** has completed three trainings: MOOC course "**Training And Development**" from Jan-Apr 2024, "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online and Industrial training at GSECL, Utran Surat.

**Mr. P. A. Ganvit, Lecturer** has completed two MOOC course "**Training And Development**" from Jan-Apr 2024 & "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online.



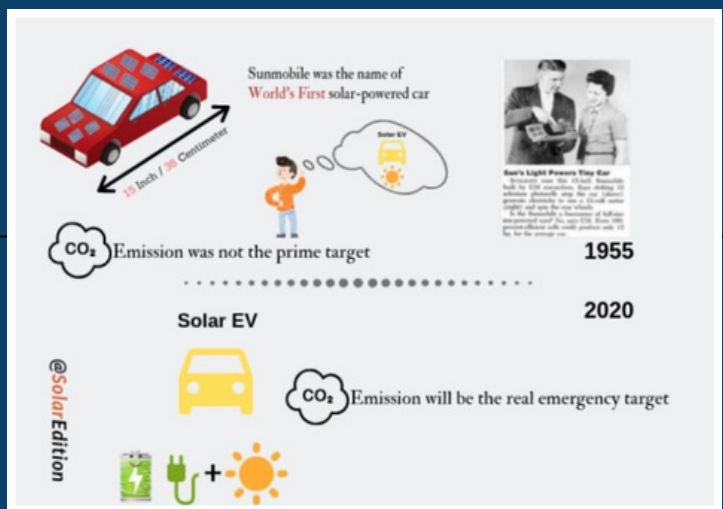
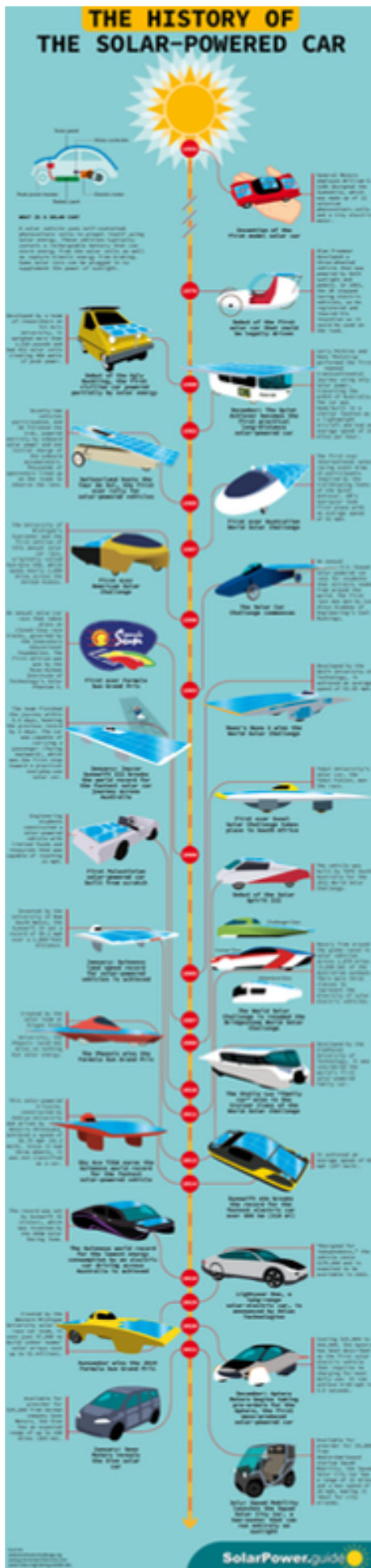
**Mr. D. R. Patel, Lecturer** has completed one MOOC course on "**Yoga and Positive Psychology for Managing Career and Life**" from Jan-Mar 2024 via NPTEL online.

**Mr. T. M. Ghiwala, Lecturer** has completed one MOOC course on "**IP Management & Technology Transfer**" from Jan -Mar 2024 via NPTEL online.



**Mr. C. V. Patel, Lecturer** has completed three trainings: **Advances in Manufacturing-Industry 4.0** from 1-6 Jan 2024 at GEC Dahod, **Leadership and Effectiveness** from Jan-Apr 2024 and **Industrial Training** from 10-29 June 24 at Mech Engineers, Valsad.

## VIPV TECHNOLOGY IN VEHICLES



### History of VIPV [1]

### History of VIPV:

The idea of a solar powered vehicle or VIPV is nothing new. The history of solar-powered cars began as a humble 15-inch solar-powered car model made of balsa wood in 1955. Along the way, many marvelous innovations have emerged. There are now solar car races around the globe, the fastest solar car achieved a speed of 56.75 miles per hour, and there are mass-produced solar-powered cars on the close horizon. [6]

### The History of Solar powered Car [6]



## Introduction

Vehicle-integrated Photovoltaics (VIPV) designates the mechanical, electrical and design-technical integration of photovoltaic modules into vehicles. The PV modules blend seamlessly into the vehicle exterior and are connected to electric loads or the drive battery in electric vehicles. Simultaneously, the PV modules replace other components of the vehicle, e.g. the roof or the bonnet. VIPV as an alternative energy source for EVs and hybrid electric vehicles (HEVs). Vehicle Integrated Photovoltaics (VIPV) supports the transition to electrification of the mobility sector.<sup>[3]</sup>

## What is VIPV?

Vehicle-Integrated Photovoltaics (VIPV) refers to the seamless integration of PV modules into the exterior design of vehicles. These solar panels become an integral part of the vehicle, replacing traditional components like the roof or the bonnet.<sup>[3]</sup>

Vehicle integrated photovoltaics (VIPV) provides the most intuitive solution by converting solar energy directly on the vehicle. In addition, it utilizes extra and usually unused areas for solar energy generation and it hence stands for a true added value to the vehicle.<sup>[7]</sup>



©LIGHTYEAR <sup>[2]</sup>



VIPV FOR LIGHT COMMERCIAL VEHICLE ©PV MEGAZINE <sup>[8]</sup>



VIPV ON MERCEDEZ BENZ ©PV MEGAZINE <sup>[3]</sup>



# Article



**DR. LOIC TOUS**

Dr. Loic Tous is a French inventor and engineer who has developed innovative solutions in the field of sustainable energy and transportation. His notable invention is the Solar Car VIPV (Vehicle Integrated Photovoltaic), which combines solar energy and electric vehicle technology.<sup>[2]</sup>



**Solar Panel on Tesla: Electric Future**<sup>[4]</sup>

## **ADVANTAGES OF VIPV:**<sup>[3]</sup>

- increased mileage
- cost savings for charging electricity
- reduced CO2 emissions
- reduced load on the electricity grid

## **Challenges:**<sup>[3]</sup>

- In application of new materials and production processes compared to conventional module constructions
- different types of modules for the specific application areas, requiring individualized production
- highest efficiency values relative to surface area are required

## **References:**

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- 3) <https://www.ise.fraunhofer.de/en/key-topics/integrated-photovoltaics/vehicle-integrated-photovoltaics-vipv.html>
- 4) <https://www.electricfuture.com/solar-panels-on-a-tesla/>
- 5) <https://www.vitsolc.com/energia-solar/agrivoltaics-harvesting-synergy-between-crops-and-solar-energy-2/>
- 6) <https://solarpower.guide/solar-energy-insights/history-solar-powered-car#:~:text=When%20was%20the%20solar%2Dpowered,and%20a%20tiny%20electric%20motor.>
- 7) <https://etip-pv.eu/publications/sria-pv/challenge-3/objective-1/roadmap-2/>
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# CREATIVE CORNER

હું યુવા.....!

યુવા શબ્દ બે અક્ષરો થી બનેલો આપણા દેશનો સૌથી પ્રચલિત શબ્દ છે. ઘણીવાર આજુબાજુનાં લોકોને બોલતા સાંભળ્યું પણ હશે કે દેશની પ્રગતી યુવાનો પર નિર્ભર છે. યુવા શબ્દ માં એટલી શક્તિ છે કે તે ગામ, સમાજ કે દેશનું નામ રોશન કરી શકે અને નવી ઉચાઈઓ પર પણ લઈ જઈ શકે અને કોઈપણ સમસ્યાઓનો સામનો કરી શકે. કોઈ પણ દેશની સાચી સંપત્તી હોય છે ત્યાંનું માનવ સંસાધન એમાં પણ ખાસ કરીને ત્યાંનું યુવાધન. કોઈપણ દેશનો વિકાસ તેના યુવાધન પર આધારિત છે. એવું કહેવાયું છે કે જે દેશનું યુવાધન વધારે એ દેશનો વિકાસદર પણ સારો હોય છે.

પરંતુ શું આજનો યુવાન ખરેખર યુવા બનવા કટિબદ્ધ છે? શું આજનો યુવાન જે દિશામાં આગળ વધી રહ્યો છે તે દિશા યોગ્ય છે? આવા ઘણા બધા પ્રશ્નો આજે ચારો તરફ દેશ કે સમાજને સતાવી રહ્યા છે એના ઘણા બધા કારણો છે. બધા કારણો જાણવાની કોશિશ કરીશું તો ચોક્કસ એના જવાબો પણ મળશે. આજનો યુવા ધારે તો દેશ માટે ઘણું બધું કરી શકે. આપણે આપણા દેશ અને સમાજને કંઈક એવી ઓળખ આપવી જોઈએ કે જેથી માત્ર આપણો સમાજ જ નહીં પણ અહીંનો દરેક નાગરિક આ દેશમાં રહીને, દેશ પ્રત્યેના કોઈપણ યોગદાન માટે પોતાના પર ગર્વ અનુભવી શકે. આજે પણ આપણા ભારત દેશમાં 'વિવિધતામાં એકતા', 'અતિથિ: દેવો ભવ' જેવી વસ્તુઓ માત્ર પુસ્તકોમાં જ નહીં, વાસ્તવિકતામાં પણ છે. હું માનું છું કે કોઈ પણ દેશ સંપૂર્ણ નથી હોતો, પરંતુ તેને સંપૂર્ણ બનાવવાની જવાબદારી આપણી યુવાધનની છે.

આપણી આજુબાજુ જ્યારે જોઈએ ત્યારે આપણને ખબર પડે કે આજનો યુવાનો અલગ અલગ વ્યસનો પાછળ જીંદગી લુંટાવી રહ્યો છે. આજના યુવાનો સ્માર્ટ મોબાઈલ ફોન, ઇન્ટરનેટ અને ટી.વી. જેવા પ્રચાર-પ્રસારના માધ્યમોના સંગે ચડી, પોતાની વિચારશક્તિ, કલ્પનાશક્તિ, સર્જનાત્મકતા ક્ષમતાને નષ્ટ કરી રહ્યા છે. આજે યુવાઓમાં ગુનાહિત પ્રવૃત્તિઓમાં દિન-પ્રતિદિન વધારો થઈ રહ્યો છે. મોબાઈલ, બાઈક, સારાં કપડાં અને હેર સ્ટાઈલ તેમજ દેખાદેખી યુક્ત ફેશન પણ આજના યુવાધનને દિશા વગરના તેમજ વિનાશના યજ્ઞમાં પોતાની આહુતિ રૂપે હોમવા માટે વિશેષ જવાબદાર છે. આ ફેશનરૂપી માહોલને લીધે આજના યુવાનો પોતાની કારકિર્દીને ભારે નુકસાન પહોંચાડી રહ્યા છે. ભારતનાં મોટાં મોટાં શહેરોમાં બદલાતી ફેશન આજના યુવા સમાજ પર એટલી હદે પ્રભાવીત સાબિત થઈ રહી છે કે જેના લીધે અસામાજિક પ્રવૃત્તિઓ વધી રહી છે.

# CREATIVE CORNER

ફેશન અપનાવવા આજનો યુવાન કોઈ પણ નિમ્ન હદની ગુનાહિત પ્રવૃત્તિ કરતાં અચકાતો નથી. ફેશનને લીધે સામાજિક તેમજ પારિવારિક ક્ષેત્રમાં પણ મોટા પાયે નુકસાન થઈ રહ્યું છે. આમ, વિષય, વ્યસન અને ફેશન આજના યુવાધનના મહાવિનાશનું કારણ બની રહ્યું છે. જો આપણે આપણા દેશને ઉત્કૃષ્ટ બનાવવો હોય તો આ તમામ વ્યસનોમાંથી બહાર નીકળવું પડશે જે દરેક યુવાઓ એ સમજવું પડશે. દેશ કે સમાજના વિકાસ માટે કટિબદ્ધ થવું પડશે. આપણે જાણીએ છીએ કે જો કોઈ આ કરી શકે છે, તો તે બીજું કોઈ નહીં પણ યુવાનો છે. કારણ કે તેના માટે ખૂબ જ ધીરજ, પ્રેમ, ઉત્સાહ અને તાકાતની જરૂર પડશે. દેશના વિકાસમાં સૌથી મહત્વનો ફાળો શિક્ષણનો પણ છે. શિક્ષણ એક એવું સંસાધન છે કે જેનાથી આજના યુવાનોને શિક્ષિત બનાવી પગભર બનાવી શકાય તેમજ દેશ ને નવી ઉંચાઈઓ સુધી લઈ જઈ શકાય. મોટાભાગના યુવાનો હજી પણ જીવનમાં યોગ્ય વલણ પસંદ કરે છે, જે લક્ષ્યો નક્કી કરે છે અને તેને પ્રાપ્ત કરવા માટે પ્રયત્ન કરે છે. સારી જીવનશૈલી જીવીને, આપણે ગૌરવ સાથે જીવવા અને આપણા સમાજના વિકાસમાં યોગદાન આપવા માટે જીવનમાંથી બધું મેળવવા માંગીએ છીએ. પરંતુ આપણી વચ્ચે યુવાની એક નકારાત્મક બાજુ પણ છે, જે પોતાને એક ખૂણામાં લઈ જાય છે, જ્યાંથી તે પોતાની મેળે બહાર નીકળી શકતો નથી. તેમની પાસે ઘણી સમસ્યાઓ છે જે તેઓ જાતે ઉકેલી શકતા નથી. ખરાબ ટેવો સમગ્ર સમાજના જીવન પર તેમજ ખાસ કરીને વ્યક્તિના જીવન અને પ્રવૃત્તિઓ પર નકારાત્મક અસર કરે છે. આ ક્ષણે, આ સમસ્યા ખરેખર વૈશ્વિક બની ગઈ છે.

યુવાન એટલે ઝગમગતો, ટમટમતો તેજસ્વી તારલો કહીએ તો કઈ ખોટું નથી. આ તારલો પરિવારને, સમાજને, દેશને, વિશ્વને સર્વે રીતે ઊજાળે એમ છે. પણ જ્યારે તે દિશા વિનાનો પાંગળો બને છે ત્યારે પરિવાર, સમાજ, દેશ અને વિશ્વનું પતન કરે છે. એને એમ જ લાગે છે કે આ કેવળ મારી અધોગતિ છે, મારો એકલાનો પરાજય છે, મારા એકલાની જ નિષ્ફળતા છે. પરંતુ તે સમાજ, દેશ અને વિશ્વની બધાની જ નિષ્ફળતા છે. આ યુવાધનને પતન અને અધોગતિના માર્ગથી કોણ પાછું વાળી શકે ? એને કોણ સાચી દિશામાં લઈ જઈ શકે? યુવાધનને બચાવવા યુવાને સ્વયં પહેલ કરવી પડશે. એણે પોતાની દશા અને અવદશાનું મૂલ્યાંકન કરવું પડશે. એણે જ સ્વયં જાગવું પડશે. એણે જ પોતાની જાતને ઓળખવી પડશે. એણે જ પોતાનું જીવન ધ્યેયસભર રચવું પડશે. તો જ તે પોતાને, સમાજને, દેશને અને વિશ્વને બચાવી શકશે અને દેશના વિકાસમાં સહભાગી થઈ નવી ઉંચાઈઓ સુધી પહોંચાડી શકશે.

લેખક:

શ્રી નિરલ ગુણવંતભાઈ પટેલ  
વ્યાખ્યાતા, મીકેનીકલ ઈજનેરી  
સરકારી પોલીટેકનીક, વલસાડ

# STUDENT SPEAKS

## A Journey of Growth and Achievement

As I look back on my three years in the Mechanical Engineering program at G. P. Valsad, I feel immense gratitude for the incredible experiences I've had at our college. Completing my diploma with distinction as one of the top three students is a proud achievement, especially with a perfect 10/10 SPI in my final semester.

This journey was enriched by various opportunities, such as expert lectures and industry visits, which deepened my understanding of the field. Participating in extracurricular activities not only enhanced my skills but also helped me develop as a person. I was honored to win the elocution competition and be recognized as the best speaker of the college, a testament to the supportive environment fostered by our faculty.

I would like to express my sincere appreciation to all my professors, especially my project guides, for their unwavering support. Their guidance was instrumental in helping me secure the 2nd prize for my final year project, the "Robotic Arm." This achievement reinforced my passion for engineering and innovation.

Additionally, attending the finishing school program equipped me with essential skills for the job market, preparing me for the professional world. I am excited to share that I have accepted a position at Atul Ltd., marking the beginning of my career.

In conclusion, I am thankful for every experience, every lesson learned, and every challenge faced during my time at college. This institution has played a significant role in shaping my future, and I am proud to be a part of such a vibrant community.

### STUDENT:

Mr. Shaikh Shakir Sajidbhai  
Enroll No. 21 6290319061



# THOUGHTS OF ALUMNI

આજે જ્યારે બો જ વધારે ગરમી પડે તો...ક્યારેક વગર ઋતુ એ વરસાદ પડે ને ત્યારે માણસ કંટાળે છે ને પ્રકૃતિ/નેચર ને કોર્સે છે ત્યારે આ પ્રકૃતિ પોતાની વ્યથા વ્યક્ત કરતા કહે છે !

## એક પ્રકૃતિ (નેચર)ની વ્યથા !!

આ માણસ વિચારે છે કે મે બદલો લેવા આવ્યો છું; પણ મે બદલો લેવા નથી આવ્યો પણ એ સમજાવવા આવ્યો છું કે... તકલીફ મને પણ થાય છે..

તમે તો પંપ થી શ્વાસ લઈ લેશો પણ મારું શું?? મારા ફૂલ છોડ ઝાડ વગર મને પણ તકલીફ થાય છે!

મારું પાણી ખરાબ કરી ને તમે તો ઘર માં ફિલ્ટર લગાવી લીધું... પણ મે ક્યાંથી લાવું આ ફિલ્ટર ??

તમે પોતાને ઠંડા રાખવા એસી બનાવી લેવો છો... એક એસી મારા માટે પણ બનાવતે..!

દર વર્ષે પીગળી રહ્યો છું મે.. બધા જાણે છે મારી સાથે શુ થઈ રહ્યું છે..! ને આં બધું કંઈ આરોપ નથી લગાવતો મે ..,

બસ સમજાવી રહ્યો છું.. કે તમે જે કરો છે ને ટેકનોલોજી ડેવલોપમેન્ટ, રિફાઇનરી, ઝાડ કાપી કોંક્રિટ નાં જંગલો, હવા પાણી જમીન નું પ્રદૂષણ આ બધું ને જો તમે પ્રગતિ સમજે તો.. મે સમજાવું એને તમે બદલો ન સમજતા.

નાઈ તો બીજું તો સમય બતાવશે જ !!! કે તમારી આ પ્રગતિ મોટી કે મારુ સમજાવાનું !!

દોસ્તો,  
પર્યાવરણ નાં polution નહી પણ solutions પર વિચાર કરીએ.

હવા પાણી જમીન શુધ્ધ હશે તો જ આપણું સ્વસ્થ્ય સારું રહશે! માટે આપણે બધા પર્યાવરણ નું જતન કરીએ!!



લેખક:

હેનિલ પાટેલ

Alumni (Batch: 2014-2017)



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