



K. D. Polytechnic Patan

The official news Letter of
Mechanical Engineering Department



Issue-04, July-Dec 2023

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Institute Vision

To impart quality technical education and create an ethically sound class of well-trained youth that can achieve opportunities in industries and serve the society.

Institute Mission

- To develop well-equipped laboratories and good academic infrastructure.
- To promote co-curricular and extracurricular activities for overall personality development of the students.
- To strengthen industry institute interaction.
- To inculcate entrepreneurial skills.
- To instill discipline and social awareness among students and enable them to deal with practical problems in daily life.



Message from Principal

Shri R. M. Shaikh

Our Nation is developing phase, Development and sustainability of nation is proportional with the development of industries. Industrial development is dependent on the availability of trained and skilled manpower. The K. D. Polytechnic, Patan offers a variety of courses, with an emphasis on basic to advanced engineering tools and techniques, rigorous tasks and project-based learning under the guidance of experienced mentors.

We believe that students of K. D. Polytechnic, Patan would excel across multi dimensions, like knowledge domain, skills, communication, basic human values and environmental consciousness. We are making sincere efforts for the holistic development of the students hence we have succeeded in maintaining our position among leading Diploma Institute in Engineering in the state.

The Training and Placement cell works tirelessly towards ensuring employment for all students across various industries and helping for Startups through the Gujarat of Government SSIP policy to transforms ideas into product.

I wish them all the very best to all for their bright futures and we are associated with the students for achieving & fulfilling their academic pursuits throughout their stay at the campus and even after.

Message from HOD

Shri. H. C. Parmar

A warm and Green Greetings from the Department of Mechanical Engineering at K D Polytechnic, Patan.

Mechanical engineering plays a significant role in enhancing safety, economic vitality, enjoyment and overall quality of life throughout the world. It is one of the oldest and broadest engineering discipline. Mechanical Engineering is a professional Core engineering discipline that deals with the design, production and maintenance of any produce of any industry.

Our department always work with the motto "Nothing can be achieved without genuine effort." The core values of the department help the students to develop their overall personality and capable them to work at global level. Our department has a team of highly qualified and experienced faculty, good infra structure and lab facilities. We are striving hard continuously to improve upon the quality of education and to maintain its position of leadership in engineering and technology. Our faculty are continuously attending various training programs, publishing research papers, books and filing patents. Many are pursuing research.

We are happy to share that many students are pursuing higher studies in leading universities in India and abroad. I am certain that our students will prove to be an invaluable asset to an organization.

Department Vision

To impart quality technical education and prepare competent diploma mechanical engineers to cater industry needs and carry out innovation.

Department Mission

- To Adopt outcome base curricula and implement innovative teaching learning process for realizing outcome base education.
- To Provide opportunities to the students for the development of professional skills.
- To Inculcate life-long learning approach in the students.

Program Educational Objectives

- To Adopt outcome base curricula and implement innovative teaching learning process for realizing outcome base education.
- To Provide opportunities to the students for the development of professional skills.
- To Inculcate life-long learning approach in the students.

Faculty Achievements



Mr. N. J. Prajapati

Lecturer Mechanical

Paper Published

Title:- “A Comprehensive investigation into the Material removal capability of powder mixed wire electric discharge machining”

Journal:- Journal of Propulsion Technology

Publication:- Vol.44, No: 03

ISSN: 1001-4055

About Article:-

The powder mixed electric discharge machining (PMEDM) has demonstrated promising results in the machining of difficult-to-cut materials including metal matrix composites (MMCs). Adding powder particles to the dielectric fluid used in electric discharge machining (EDM) improves material removal rate (MRR) and surface quality of the machined item. This study presents a thorough overview of research works on PMEDM for the machining of MMCs, concentrating on the impacts of different process parameters on the MRR and surface quality, such as powder concentration, pulse on-time, and Pulse off-time. The study also notes the process's obstacles and limits, as well as opportunities for further research. Previous research has shown that PMEDM can greatly increase the MRR and surface quality of machined MMCs when compared to regular EDM. The addition of powder particles to the dielectric fluid has been found to improve machining zone cleansing and cooling, decreasing tool wear and enhancing machining precision.



Dr. H. V. Thakkar




Lecturer Mechanical

Certificate of Appreciation




Under:- the participated in the National Conference as a part of Vibrant Gujarat-Bharatiya Vigyan Sammelan held at Science city- Ahmedabad during 21-24 Dec 2023 and presented a research paper under the theme “**Green Energy, Green Future**”

Bright Students

SEMESTER-6

RANK-1		RANK-2		RANK-3	
					
NAME	TRIVEDI SMIT SURENDRAKUMAR	NAME	PRAJAPATI KEYURKUMAR MOHANBHAI	NAME	RAJPUT KRUNALSINH VISHNUJI
ENROLLMENT NO	196310319146	ENROLLMENT NO	206310319016	ENROLLMENT NO	206310319048
SPI (OUT OF 10)	9.89	SPI (OUT OF 10)	9.82	SPI (OUT OF 10)	9.82

SEMESTER-2

RANK-1		RANK-2		RANK-3	
					
NAME	THAKOR JAYDIPSINH VASANTJI	NAME	RAVAL SARVAGNA DHRUVKUMAR	NAME	DAVE HETKUMAR GIRISHCHANDRA
ENROLLMENT NO	226310319064	ENROLLMENT NO	226310319056	ENROLLMENT NO	226310319012
SPI (OUT OF 10)	9.65	SPI (OUT OF 10)	9.55	SPI (OUT OF 10)	8.85

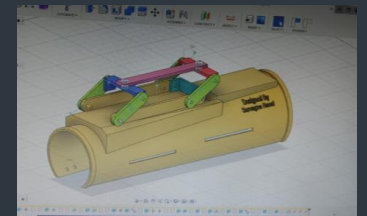


The You tube channel - Sarvagna Raval DIY Videos

I have a youtube channel named SARVAGNA RAVAL which is related to DIY projects. I uploaded 86 videos and 26 shorts which are related to technical projects.

3 years ago I made an Ironman Hand Gauntlet prototype which is my main project. Then I made that again 3 times to make it more advance.

And now I'm going to make whole 3d printed gauntlet which is gonna be more efficient. I already made its Design in Fusion 360. Which you can see in this image.



- Sarvagna Raval

SSIP 2.0



K. D. Polytechnic Patan **SSIP**
Student Startup & Innovation Policy

"SSIP 2.0 Project fair - 2023"

Organized by:
SSIP Cell
K. D. Polytechnic, Patan

Date & Venue:
05/05/2023
HE LAB
Main Building

Student Start up & Innovative Policy SSIP 2.0

World Entrepreneurship Day

Date: - 21-08-2023

The Student Startup and Innovation Policy (SSIP) 2.0 is the updated version of the SSIP 1.0 policy launched by the Government of Gujarat in January 2022. The policy period is of 5 years (January 2022 – March 2027). The aim of SSIP 2.0 is to build on the success of the previous policy and take it to the next level by providing more comprehensive support to the startups and entrepreneurs in the state.

The policy provides funding assistance, mentorship, incubation, and accelerator support to the student startups, along with access to industry networks and global markets.

The SSIP 2.0 policy has also introduced a new concept of Innovation and Entrepreneurship (iHub), which is acting as a one-stop-solution for sector-wise startups and entrepreneurs. These hubs will provide state-of-the-art facilities, including co-working spaces, labs, and incubation centers, to the startups.



Alumni Association Meet 2023



KDP Alumni Association Meet 2023

Dt:- 30 Sept 2023

About KDPAA: -

Registration No: - F/1245 Patan

Establishment : - 22th Dec 2004

Objective of KDPAA:

Supporting Career Development

Promoting Lifelong Learning

Maintaining College Ties

Alumni Fund raising

Mentorship

Social & Cultural Activites

Sharing Succes Stories

Community Service

Communication

Feedback and input



"The alumni community is a powerful force, coming together to make a difference in the world"

- KDPAA

Price Distribution Ceremony

Price distribution Program

Dt: - 22nd Sept 2023



INDUSTRIAL Visit



Solitaire 15 Mw solar plant

22nd Sept 2023

Sem: - 5th

No of Students: - 35

No of Faculties: -02

This project awarded under phase 1 of Gujarat Solar Power policy 2009 will be the first major project commissioned under the Gujarat Solar Mission.

This industrial visit is beneficial to enhancing practical knowledge in following diploma courses:

- Renewable & Green Energy

Shreeji Casting, Patan

29th Dec 2023

Sem: - 3rd

No of Students: - 30

No of Faculties: -02



Rani ki Vav, Patan

Unesco World heritage site

Industrial Visit



INDUSTRIAL Visit



Gujarat Power & Research Inst, Mehsana

04th November 2023

Sem: - 5th

No of Students: - 51

No of Faculties: -02

This industrial visit is beneficial to enhancing practical knowledge in following diploma courses:

- Manufacturing Engg-III

Also learn *Friction Stir Welding Process*

CHOOSE PUBLIC TRANSPORT, OR OPT FOR A CARPOOL

If a single person switches from a 32 Kilometer commute alone by car to existing public transportation, it can reduce their annual CO2 emissions by 9 Kilogram per day, or more than 21,000 Kilogram in a year.

Industrial Visit



Placement



Training & Placement Cell

The Training and Placement cell works tirelessly towards ensuring employment for all students across various industries and helping budding entrepreneurs in establishing successful businesses.

Placement



ENERGY SAVING TIPS

THROUGH THE GREEN IMPACT PROGRAMME, WE ARE ALWAYS TRYING TO BE MORE ENERGY EFFICIENT IN OUR OFFICE. TO HELP YOU CONTINUE THE GREAT WORK, HERE ARE SOME TOP TIPS FOR SAVING ENERGY.



LIGHTS

Remember to switch off lights when you leave your area of the office. People can turn the light back on again if they need to!

COMPUTERS

At the end of the day shut down your computer properly - at the plug if possible. If your computer needs to stay on please switch off the screen.



CHARGERS

Switch it off and save! Unplug any chargers when they are not in use as even mobile phone chargers continue to use electricity when they aren't charging.

IN THE KITCHEN

Switch off the light when leaving the kitchen and remind others to do the same! Turning off the microwave and toaster can also save energy.



PRINTERS

Remember that the MDF printer cannot be turned off at the plug. Instead put the printer in sleep mode.

NSS Activities



National Service Scheme- NSS Activities

The National Service Scheme (NSS) is a Central Sector Scheme of Government of India, Ministry of Youth Affairs & Sports. It provides opportunity to the student youth of 11th & 12th Class of schools at +2 Board level and student youth of Technical Institution, Graduate & Post Graduate at colleges and University level of India to take part in various government led community service activities & programmes. The sole aim of the NSS is to provide hands on experience to young students in delivering community service.

The Motto of NSS

"Not Me But You"



Joy of Giving- 07-11-2023



Drawing Competition

Gymkhana Activities

List of Gymkhana Activities

- Tree Plantation
- Semicon India visit, Gandhinagar
- Azadi ka Amrit Mahotsav Samapan Program
- Rangoli Competition
- Prize Distribution Ceremony
- Navratri Garba
- Startup Conclave 2023, Gandhinagar



Independence day celebration- 15-08-2023



Rangoli Competition- 21-09-2023



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Navratri Celebration at KDP Campus- 27-10-2023



Tree Plantation at KDP Campus- 21-07-2023



Gymkhana Activities

List of Gymkhana Activities

- Tree Plantation
- Semicon India visit, Gandhinagar
- Azadi ka Amrit Mahotsav Samapan Program
- Rangoli Competition
- Prize Distribution Ceremony
- Navratri Garba
- Startup Conclave 2023, Gandhinagar



Semicon India Visit at Gandhinagar- 29-07-2023



Start up Conclave at Gandhinagar – 08-12-2023





Mission Life Activities

Mission Life Program Activities

Mission Life can become mass movement of Environmental Conscious life style.

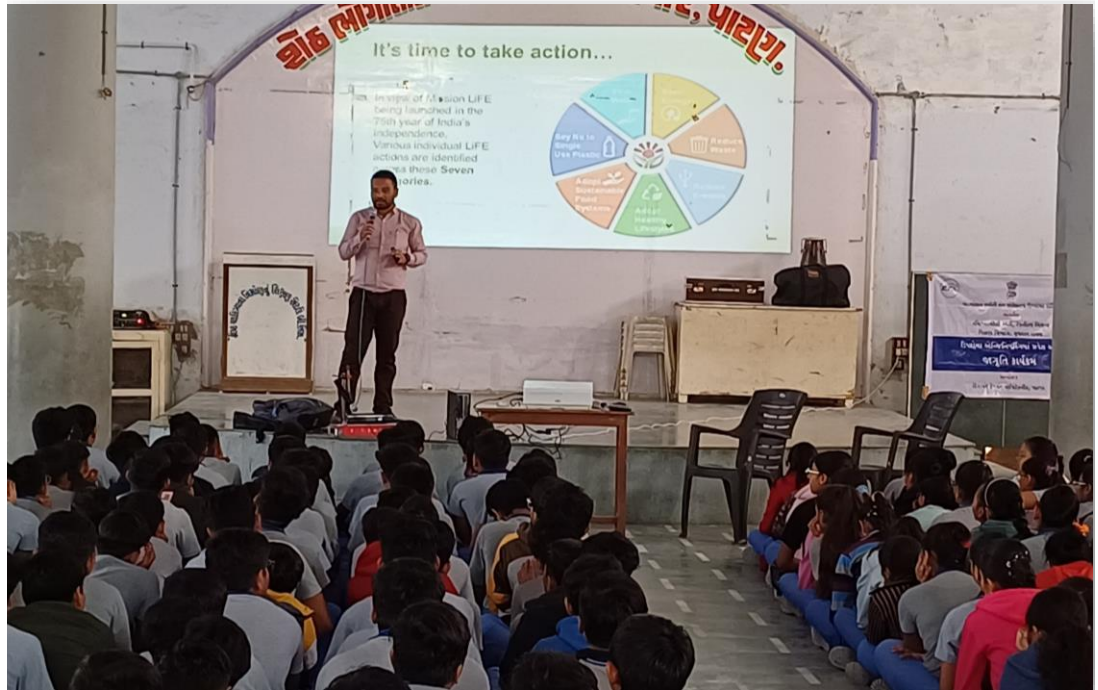
What is need today is mindful and deliberate utilization, instead of mindless and destructive consumption.

7 main objectives of mission life program

- Save Energy
- Save Water
- Reduce Waste
- Reduce E-waste
- Adopt Healthy life style
- Adopt Sustainable food system
- Say NO to single use plastic



Plastic free campus drive- 14-12-2023



Save Energy & Water awareness Program at B. M. High School

Editor's Note:-

It gives us an immense pleasure to introduce this Newsletter of Mechanical Engineering, named "Shashvat"

I am grateful to our honorable Principal and HOD who gave this opportunity. It has been a learning experience to us. I am also thankful to all staffs for their co-operative nature. At last but not least we are thankful to all those helped us directly and indirectly.

Shivam R. Modi
Lecturer Mechanical Engineering

