

#### SANTOSH N. DARADE POLYTECHNIC, YEOLA

APPROVED BY- AICTE, NEW DELHI DTE MUMBAI, AFFILIATED
TO MSBTE MUMBAI

#### DEPARTMENT OF MECHANICAL ENGINEERING

## **NEWS LETTER 2021-22**





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Prof. Jadhav U.B. (Principal, S. N. D. Polytechnic, Babhulgaon)



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#### DEPARTMENT OF MECHANICAL ENGINEERING

#### **ABOUT INSTITUTE**



Santosh N Darade Polytechnic, Babhulgaon (Yeola) was established in the year 2002 at a small town known as Babhulgaon near Yeola is engaged in serving the society by imparting quality technical education. The institute develops state-of-the-art laboratories for conducting the courses Civil, Computer, Electrical, and Mechanical Engineering. The institute is located at Babhulgaon village on Yeola-Patoda road at about 3 KM from Yeola city.



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#### **INSTITUTE VISION MISSION**

#### **VISION STATEMENT**

 To create and maintain learning environment to produce technocrat who will serve the industry and society with their knowledge and skill.

#### **MISSION STATEMENT**

- M1: To impart technical knowledge to satisfy industry and society need.
- M2: To inculcate habit of life long learning to cope-up with changing technology.
- M3: To empower diploma engineers for social progress with ethical values.



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#### **DEPARTMENT VISION MISSION**

#### **VISION STATEMENT**

 To create and maintain learning environment to produce diploma mechanical technocrat who will serve the industry & society with their knowledge and skill.

#### **MISSION STATEMENT**

- M1 To Impart mechanical engineering knowledge to satisfy industry &society need.
- M2 To inculcate habit to mechanical engineer for lifelong learning to cope up with changing technology.
- M3 To empower mechanical engineers for social progress with ethical values.



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#### MESSEGE FROM PRINCIPAL DESK



PROF. JADHAV U.B.

Principal, S.N.D. Polytechnic, Babhulgaon

We at S.N.D. Polytechnic continuously strive to impart Quality Education along with high ethical and moral values which enable us, not only to mold our student as successful diploma engineers but also as disciplined citizens of our Nation. Also, we continuously upgrade and maintain world-class infrastructure keeping pace with the rapid technological developments. S.N.D. Polytechnic is one of the best polytechnics of the region, imparting quality education to its students, with special emphasis on personality development. Participation in competitions, industrial training & visits are regular features of college and are financially supported by the college.

Life at the campus is hectic with college theory and skill tests, semester examinations, practical submissions, co-curricular & extracurricular activities. The students are initially baffled but guidance from teachers gradually makes students confident and relaxed. The raw and unpolished students entering the college leave as confident and self-assured diploma holders. Of course, a lot of hard work goes behind this transition as they say a gem cannot be polished without friction, nor a man perfected without trials. We believe truly that quality education is a necessary precondition for a better world and pledge with efforts to ensure that our Polytechnic will meet all your children's needs in well-equipped, well-resourced and well-staffed campuses that are essential in the quality of the education they provide. We take pride in our commitment to offer programmers that draw on research and best practice as well as acting with the wealth of knowledge and experience of our competent faculty. Together, we aim to create a relevant, engaging and challenging educational experience for all our students.

PROF. JADHAV U.B.

Principal, S.N.D. Polytechnic, Babhulgaon



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#### **MESSEGE FROM HOD**



PROF.RAJANKAR S.R. HOD (ME)

Welcome to the website of the Department of Mechanical Engineering, Santosh N. Darade Polytechnic, Yeola. From the establishment of this institution, our primary goal for diploma students is to train future leaders with quality Oriented engineering education. Our Qualified faculty always tries to the students developments in Mechanical Engineering working drawing, Industrial fluid power, measurement & control, CNC, Design Engineering, Thermal Engineering, Refrigeration & air conditioning, Power Plant Engineering, Renewable Energy Sources, Manufacturing Processes etc.

Our vision is to make competent mechanical engineer for industry, higher education and able to develop as entrepreneur. We always tries to provide platform to the students towards attaining quality education in mechanical engineering to develop basic skills which are required to develop diploma engineers for serving national and international industries.

Also we provide the student's academic environment, leadership and ethical guidelines and lifelong learning needed for long productive career.

PROF. RAJAKAR S.R Head of the Department



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#### **DEPARTMENT FACULTY DETAILS**

## Teaching Staff

SR N	O NAME OF STAFF	DESIGNATION
1	MR. RAJANKAR S.R.	HOD
2	MR. TAKSANDE R.V.	LECTURER
3	MR. BHONGALE S.B	LECTURER
4	MR. ASUDE S.R.	LECTURER
5	MR. GORE P.R.	LECTURER
6	MR. BHAGWAT S.N	LECTURER
7	MR. KHOKALE K.V.	LECTURER
8	MR. MAKUNE S.M.	LECTURER
9	MR. SHIRSATH K.S.	LECTURER
10	MS. KHAIRE P.A.	LECTURER
11	MR.MULANI K.D	LECTURER
12	MR. GAVHANE G.V.	LECTURER



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#### **DEPARTMENT FACULTY DETAILS**

Non Teaching Staff

SR NC	NAME OF STAFF	DESIGNATION	
1	Mr. Tiwari A.R.	Workshop Instructor	
2	Mr. Lahre P.M	Technical Assistant	
3	Mr. Gawali D.Y.	Instructor	
4	Mr. Gawali D.Y.	Technical Assistant	



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#### **TECHNICAL TOUCH**

- 1. ANALYSIS & SIMULATION
- WHY IS IT IMPORTANT?

ENGINEERS USE SIMULATION TOOLS TO ANALYZE STRESS, HEAT TRANSFER, AND FLUID FLOW IN MACHINES.

KEY SKILLS & SOFTWARE:

ANSYS – USED FOR STRUCTURAL, THERMAL, AND FLUID ANALYSIS.

MATLAB – USEFUL FOR MECHANICAL SIMULATIONS & AUTOMATION.

CFD (COMPUTATIONAL FLUID DYNAMICS) – FLUID FLOW ANALYSIS FOR AERODYNAMICS.

✓ PRACTICAL APPLICATIONS:

TESTING BRIDGE STRUCTURES, TURBINE BLADES, AND HEAT EXCHANGERS. SIMULATING CAR AERODYNAMICS FOR FUEL EFFICIENCY.

- 2. INDUSTRIAL AUTOMATION & CONTROL SYSTEMS
- WHY IS IT IMPORTANT?

MANY INDUSTRIES USE AUTOMATED MACHINES, AND KNOWING HOW TO CONTROL THEM IS ESSENTIAL.

KEY SKILLS & TECHNOLOGIES:

PLC PROGRAMMING - USED FOR INDUSTRIAL AUTOMATION (SIEMENS, ALLEN BRADLEY). SCADA SYSTEMS - USED FOR REMOTE MONITORING OF MACHINES.

IOT (INTERNET OF THINGS) - SENSORS & AUTOMATION FOR SMART INDUSTRIES.

PRACTICAL APPLICATIONS:

CONTROLLING ROBOTIC ARMS IN AUTOMOBILE FACTORIES.
AUTOMATING CONVEYOR BELTS & PACKAGING SYSTEMS.

- 3. SOFTWARE & CODING FOR MECHANICAL ENGINEERS
- WHY IS IT IMPORTANT?

MODERN ENGINEERS USE CODING & SOFTWARE TO AUTOMATE CALCULATIONS AND SIMULATIONS.

KEY SKILLS & TOOLS:

PYTHON – FOR DATA ANALYSIS, AUTOMATION, AND AI IN MECHANICAL ENGINEERING.
MATLAB & SIMULINK – USED IN MECHANICAL SIMULATIONS & CONTROL SYSTEMS.
IOT PROGRAMMING – WRITING CODE FOR ARDUINO, RASPBERRY PI IN AUTOMATION PROJECTS.

✓ PRACTICAL APPLICATIONS:

AUTOMATING QUALITY CONTROL CHECKS USING AI.
CONTROLLING ROBOTIC SYSTEMS WITH ARDUINO & PYTHON.

- **★ CONCLUSION: WHAT SHOULD YOU FOCUS ON?**
- IF YOU ARE A DIPLOMA STUDENT IN MECHANICAL ENGINEERING, YOU SHOULD:
- LEARN AUTOCAD, SOLIDWORKS, AND CNC PROGRAMMING.
- ☑ GAIN EXPERIENCE IN WELDING, 3D PRINTING, AND INDUSTRIAL AUTOMATION.
- ✓ UNDERSTAND ELECTRIC VEHICLES, ROBOTICS, AND IOT APPLICATIONS.
- ▼ DEVELOP CODING SKILLS (PYTHON, MATLAB) FOR AUTOMATION & ANALYSIS.



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#### PAPER PUBLISHED BY FACULTY









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#### PAPER PUBLISHED BY STUDENTS









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#### LET'S TALK WITH ALUMNI

Name: Rajule Amol Somnath

Bathch: Diploma in Mechanical Egieering, 2022-23

Current Position: Brembo brake India, Chakan

\*"Looking back on my diploma journey in mechanical engineering, I recognize how crucial it was in shaping my professional path. The program struck a perfect balance between in-depth theoretical learning and hands-on practical experience. One of the most unforgettable moments was operating a lathe machine for the first time—it felt like stepping into the heart of engineering innovation.

The industrial training and site visits arranged by the department provided invaluable exposure to real-world manufacturing environments. Today, as a Production Engineer, I am responsible for overseeing the manufacturing processes of automotive components, ensuring both efficiency and quality. The technical knowledge and project management skills I gained during my diploma have played a key role in my career progression.

For current students, my advice is straightforward: participate actively in workshops, prioritize hands-on learning, and stay informed about emerging trends like automation and additive manufacturing. The industry is evolving rapidly, and staying ahead with new technologies will give you a significant advantage."\*

Name: Sayed Sahil Majid

Bathch: Diploma in Mechanical Egieering, 2016

Current Position: Bajaj Auto PVT. LTD

\*"During my time in the Mechanical Engineering Department, I gained profound insights into teamwork, discipline, and problem-solving—skills that continue to benefit me throughout my career. The chance to work on real-world maintenance projects during my diploma helped me realize my passion for ensuring machinery functions optimally.

Practical training in labs and workshops was a transformative experience, enabling me to hone troubleshooting abilities that are now crucial in my role as a Maintenance Engineer. Working in industries such as Global Steel Industries has provided extensive exposure to machinery upkeep, reducing downtime, and executing preventive maintenance strategies. The expertise I developed in machine design and thermodynamics during my diploma has been instrumental in solving intricate mechanical issues.

For students aspiring to excel in mechanical engineering, my advice is to cultivate a robust technical foundation while also enhancing vital soft skills such as communication and teamwork. Engineering isn't solely about machines—it's also about working effectively with people, and excelling in both areas will pave the way for a thriving career."\*



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#### **EXPERT TALKS**





## **Career Guiadance**



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#### STUDENTS ACTIVITY



A warm congratulations to students of SY Mechanical Engineering. Happy to share that our Polytechnic students had participated in State lavel event Technofair Robo Race arrange by MIT Polytechnic Dhanore.





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#### **OUR TOPERS**

#### SECOND YEAR

Sr. NO	Name	Percentage
01	Shitole Ganesh Bhaskar	77%
02	Pale kiran Santosh	74.37%
03	Salve Aniket Sanjay	72.12%

#### THIRD YEAR

Sr. NO	Name	Percentage
01	Chavan Tushar Anil	84.89%
02	Borse Karan Dadaji	84%
03	Ghuge Nikhil Santosh	783.89%



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#### **TECHNICAL EVENTS**









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#### **INDUSTRIAL VISIT**









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#### **YUVASPANDAN 2021-22**









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#### **NEWS CORNER**



होते. कर्तृत्वचान महित्य म्हणून प्रजनतो ब्रह्माकुन्यती ईश्वतीय

विकासिक्यालयाच्या मुख्य संचालिका बीतादीदी वांना अधिन नारावेन

भाषार मञ्जले. अर्थिक पुजराची, गीवांकली पाणिरे, कल्पाणी मोरे, पृत्र मांचळे, मोचली क्येकारे, विक्रमा कदम आदी अपरिश्वत होते.

पतकार संस्थानम् स्थानभूमम् पुरस्कारने सम्पर्धन करम्पान आसे. जा. वर्षा मानेसव यांची सुवसंचारल केले. जा. समस्य महाने वांची

## आपले महानगर

प्रसाद गुब्बी प्रतिनिधी येवत

आपले संस्कार व संस्कृती हेच आपले सुरक्षा कवच

 वेशतः अपने संस्थाः व शापनी संस्था। हेर आजो मुक्त बतद अले. येन संस्ता र संस्कृतीया जवलंब बसन समाजन बाजरान्या र्वाल आह एक प्रशासी बार्यल आहे. लांबा मादर्श पेतन अञ्चली आतते संस्कृत य संस्कृती क्या अपने स्वेत विजयिष्याचा प्रस्ता बेला पतिये, अने का इसकीत प्रथमा अध्यक्ष पुषेत्र संक्रोप कंदे मह केते.

शेंसापेन, राज्यीर, अजीप अशा विविध सेवंत मिलारे केन्द्रम हे जांबनीत आहे. जीवारी पर्वा न काला अजीन्य केविका, अंतानवादी मेरिया, मधाई बर्नवरी, समाजिब वार्गकर्ता यंत्री क्यासभी होता केली सता क्लेक्यन



वरितांच जार्या ग्रेम्बक्केर रेक्न आकरो आपन्य देवाची बमावाडी केव महेल असे बार्प करणाचे सरवानई सभी वर्षयों केते.

बार्ताक गीला जिल्ले औरिया जारा समाजा कोनेन सहसाजिक कावार उसके जिल्ला कंग्रेजा इस. १२. डी. लंगिकामचे विद्यविद्याले कांत्रिका व्यासक्तरतः त्य बोला होता. इक्तरी अञ्चन्नजी र्रशीय विश्वविद्यालयान्य मुख्य वंश्वनित्रा निरावेदी क्रोप प्रतिलक्षा, वंपनिकार्य प्राचार्य पू. बी. काल उपविश्व होते. क्लूंक्यान

बरिना सन्न प्रवासी प्रप्रकृती र्वशीय विश्वविद्यानकाम् मृत्र पंचालिका निता ऐसे कंप अंकित बातीय प्रमाप्त संबाद्या समाजनुसर कुत्रकारे प्रमा कल्पत आत. त्यांतित ज्ञाया यांचा हाने निता देवी यांचा गीत करत्वत बाल. प्र. वर्ष शत्कार वर्श मुख्यंत्रल हेले. प्र . प्रशास पाने यांनी आपार बारते, अर्थित पुताबो, विश्वंतनी पाणि, बल्पाची बंते, पूरा संबंधे, गोराजी बोबारे, विकास बाहर आफिल विद्यार्थिने पोत्रका एकामें उपविश्व रोज्य

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