

September-December  
2024



# AYDTI NEWSLETTER

"TRUSTED TO DELIVER EXCELLENCE"

## Mechanical Engineering Department

Approved by



Affiliated with



Managed By: The SSVMES, Surat.



## About Institute:

A. Y. Dadabhai Technical Institute (AYDTI) is a premier polytechnic institute located in Kosamba, Surat District, offering top-notch technical education to students aspiring to excel in engineering and technology. Established under the management of The Suratee Sunni Vohra Muslim Education Society (Reg No: F-14), AYDTI is dedicated to fostering innovation, skill development, and academic excellence.

## Institute Vision

To impart globally competitive education to all its students, enabling them to fulfill effectively the technological and socio-economic needs of society in a sustainable manner.

## Department Vision

To groom self-esteem and creative human potential by enhancing their technical skills to make them market-ready in the field of mechanical engineering.

## Institute Mission

- Develop technical human resources by imparting state-of-the-art skill-based training programs tailored to regional and global needs.
- Nurture innovation and entrepreneurship among faculty and students, creating opportunities for meaningful and long-term interaction with academia and industries.
- Ensure effective and transparent governance in all aspects of the institute's functioning to benefit its stakeholders.

## Department Mission

- To educate and mentor students to excel as professionals by imparting them core knowledge of mechanical engineering.
- Nurture students with innovation and entrepreneurship skills to develop divergent thinking respond productively to the needs of the industries and society.
- Constantly strive to good governance in technical and soft skill, along with ethics and humanities.

Inside: • About Trust

• Co-curricular Activities

• Inauguration of Industry Supported Lab.

• Industrial Visits

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### About Trust

#### **"The Suratee Sunni Vohra Muslim Education Society"**

The Suratee Sunni Vohra Muslim Education Society was established in 1947 by the elders of Vohra community who are visionary, well-wishers and think tankers. During the independence of India, the first priority was education which only can uplift the community.

From 1947, the society has made continuous progress, initially starting with providing monetary help to the poor and needy students in the form of education scholarship, now days the society is trying it's best for the various activities and charities under various heads.

With the great vision of our elders, initiative by JANAB AAZAMBHAI DADABHAI and huge donation in the form of Land at Kosamba (7 Vingha) by DR. G. I. MOTALA and his family the dream became true in the form of A.Y. Dadabhai Technical Institute, Kosamba.

A. Y. Dadabhai Technical Institute (Polytechnic) the First Muslim managed Polytechnic in Gujarat state start from August 2008, approved by A.I.C.T.E (All India Council for Technical Education) Government of India and affiliated with Gujarat Technological University, Ahmedabad.





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### : Messages :

**Mr. M. M. Dalchawal**  
**Director**  
**A. Y. Dadabhai Technical**  
**Institute**

It gives me immense pleasure to congratulate the Diploma Mechanical Engineering Department on the launch of their inaugural newsletter. This is a truly significant and forward-thinking initiative for A. Y. Dadabhai Technical Institute.

In today's dynamic world, effective communication and knowledge sharing are paramount. This newsletter will serve as a vital platform to showcase the remarkable talents and innovative projects of our students and faculty. This endeavor perfectly aligns with our institute's commitment to fostering a vibrant academic environment that encourages excellence, collaboration, and continuous learning.

I look forward to seeing the impactful stories and achievements that will undoubtedly fill the pages of this newsletter. It's a testament to the growth and progress we continue to make here at A. Y. Dadabhai Technical Institute.

**Dr. D V Patel**  
**Principal**  
**A. Y. Dadabhai Technical**  
**Institute**

It fills me with immense pride and optimism to witness the inauguration of the Diploma Mechanical Engineering Department's newsletter. This is a commendable initiative and a significant step forward for A. Y. Dadabhai Technical Institute.

A newsletter isn't just a collection of articles; it's a vibrant chronicle of our collective journey, a showcase of talent, and a platform for sharing knowledge and innovation.

This newsletter will foster a stronger sense of unity and intellectual curiosity within our institute. It's a testament to the department's proactive spirit and commitment to excellence.

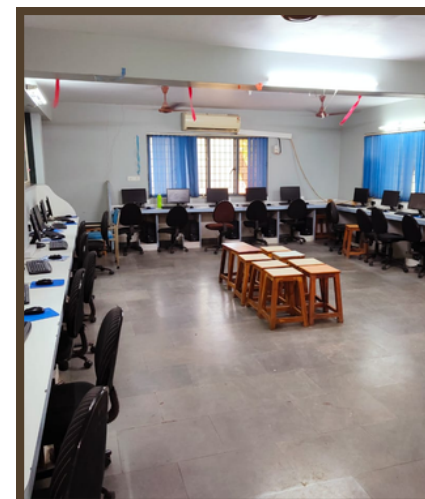
My heartfelt congratulations to the Head of Department, the faculty, and especially the students, for bringing this wonderful vision to fruition. I eagerly anticipate reading about your successes and insights on the issues to come.

**Prof. K H Patel**  
**Head of Department**  
**Mechanical Engineering**  
**Department**

It's with immense pleasure and pride that I announce the inauguration of our Diploma Mechanical Engineering Department's own newsletter. This initiative marks a significant milestone for us, providing a dedicated platform to showcase the remarkable achievements of our students and faculties, share departmental news, and highlight the exciting advancements in the field of mechanical engineering.

I believe this newsletter will foster a stronger sense of community within our department, encourage knowledge sharing, and inspire innovation. It's a testament to our collective dedication and hard work.

Congratulations to everyone involved in bringing this vision to life. I look forward to see our newsletter flourish as a vibrant hub of information and inspiration for years to come.



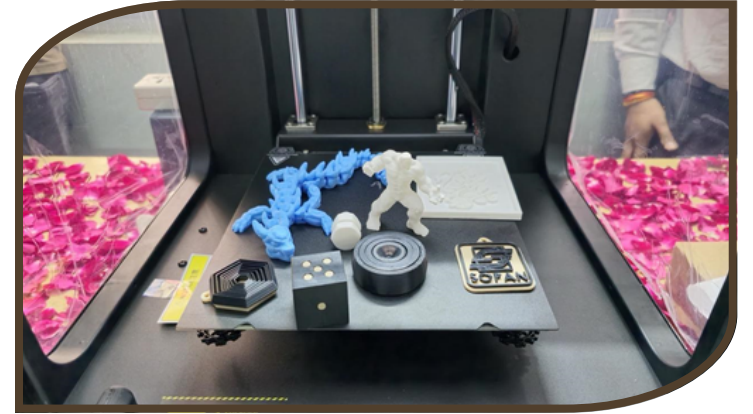


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## *Inauguration of "3D Printer Lab" (Industry Sponsored)*

We are pleased to announce the inauguration of the state-of-the-art "3D Printer" Lab, generously sponsored by Sopan Infotech, at the Mechanical Engineering Department of A. Y. Dadabhai Technical Institute, Kosamba. This milestone marks a significant step forward in providing our students with cutting-edge tools for innovation and hands-on learning.



***Date of Inauguration: 21<sup>st</sup> December - 2024 (Saturday)***





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## *Expert Lectures*



"3D Designing"  
Solid Works, AutoCAD  
By, Sopan Institute of  
Engineering and Design.  
(20-09-2024)

## *Industrial Visits*



Ganesh Engineering Works  
(10-08-2024)



Mahavir Metal Industries  
(04-10-2024)



Kataria Automobiles  
(05-10-2024)



Steel Plus Engineering  
(06-09-2024)



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## Co-Curriculum Activities



Career Opportunities Program  
(07-10-2024)



Unlocking Abroad Opportunities  
(02-12-2024)



Driving Innovation & Shaping Future  
(10-10-2024)



AI Powered Resume Workshop  
(24-12-2024)





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### Faculty Trainings

1	MR. PRANAY J. SURTI	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
2	MR. SAURABH A. KAPADIA	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
3	MR. YOGESH A. SAKPAL	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
4	MR. RITESH S. PATEL	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
5	MR. VISHAL R. CHAUHAN	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
6	MR. MAHESH G. KATARIA	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
7	MR. MITESH A. PRAJAPATI	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
8	MR. ASHISH S. GHARIYA	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
9	MR. PRATIKSINH P. SOLANKI	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
10	MRS. SHRUTIBEN Y. VYAS	SUSTAINABLE HAPPINESS	NPTEL	22-07-2024 To 13-09-2024
11	MR. KAMLESH H. PATEL	EMPOWERING EDUCATORS IN AI AND IOT	EDUCATION DEPARTMENT GOVT. OF GUJARAT KNOWLEDGE CONSORTIUM OF GUJARAT	13-11-2024
12	MR. KAMLESH H. PATEL	STRESS MANAGEMENT AND WORK LIFE BALANCE	KNOWLEDGE CONSORTIUM OF GUJARAT, EDUCATION DEPARTMENT, GUJARAT	18-12-2024
13	MR. PRANAY J. SURTI	DATA ANALYSTICS IN EDUCATION	A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA	06-12-2024 To 07-12-2024
14	MR. SAURABH A. KAPADIA	DATA ANALYSTICS IN EDUCATION	A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA	06-12-2024 To 07-12-2024
15	MR. YOGESH A. SAKPAL	DATA ANALYSTICS IN EDUCATION	A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA	06-12-2024 To 07-12-2024
16	MR. RITESH S. PATEL	DATA ANALYSTICS IN EDUCATION	A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA	06-12-2024 To 07-12-2024
17	MR. UMANG S. DESAI	DATA ANALYSTICS IN EDUCATION	A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA	06-12-2024 To 07-12-2024
18	MR. VISHAL R. CHAUHAN	DATA ANALYSTICS IN EDUCATION	A.Y.DADABHAI TECHNICAL INSTITUTE, KOSAMBA	06-12-2024 To 07-12-2024
19	MR. MAHESH G. KATARIYA	MANUFACTURING & TESTING OF METALS	DTE	19-02-2024 To 23-02-2024
20	MISS. MAMTABEN R. VANSIYA	ELECTRICAL VEHICLE TECHNOLOGY & ITS ADVANCES	DTE	19-02-2024 To 23-02-2024
21	MR. KAMLESH H. PATEL	ENERGY CONSERVATION FOR SUSTAINABLE DEVELOPMENT	TAPI DIPLOMA ENGINEERING COLLEGE, SURAT	25-11-2024 To 30-11-2024
22	MR. DEVEN I. SURTI	ENERGY CONSERVATION FOR SUSTAINABLE DEVELOPMENT	TAPI DIPLOMA ENGINEERING COLLEGE, SURAT	25-11-2024 To 30-11-2024



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## Faculty Achievement



### CERTIFICATE OF APPRECIATION TO

**CHAUHAN VISHAL R**

Humanities and Social Sciences

for being recognized as NPTEL DISCIPLINE STAR

**JUL-DEC 2024**

**Prof. Andrew Thangaraj**  
Chair  
Centre for Outreach and Digital Education, IITM

**Prof. Vignesh Muthuvijayan**  
NPTEL Coordinator  
IIT Madras

#### NPTEL DISCIPLINE STAR

Candidate has to be certified in courses of same discipline, completed more than 50 weeks of learning, final score in each subject  $\geq 55$







## Article: The Synergistic Potential of Outcome-Based Education (OBE) in India's NEP 2020:

India's National Education Policy 2020 (NEP 2020) envisions a transformational shift in the education system, focusing on holistic development, critical thinking, and experiential learning. Outcome-Based Education (OBE) aligns perfectly with these goals, offering a structured framework for achieving the policy's ambitious objectives.

### What is Outcome-Based Education (OBE)?

OBE is an educational approach that centres on what students should know, understand, and be able to do at the end of their learning journey. Instead of focusing solely on inputs (resources, curriculum), OBE emphasizes clearly defined learning outcomes that are demonstrably achievable and measurable. These outcomes drive the curriculum design, teaching methodologies, and assessment strategies.

### Why OBE is Crucial for NEP 2020's Success:

OBE is not just a pedagogical approach; it's a vital mechanism for realizing the potential of NEP 2020:

- **Alignment with NEP 2020's Goals:** NEP 2020 prioritizes developing well-rounded individuals with 21st-century skills. OBE directly addresses this by defining specific outcomes related to critical thinking, problem-solving, creativity, communication, and collaboration.
- **Enhanced Learning Experiences:** By focusing on desired outcomes, educators can design more engaging and relevant learning experiences. OBE encourages innovative pedagogies such as project-based learning, flipped classrooms, and experiential activities, aligning with NEP 2020's emphasis on active learning.
- **Improved Assessment and Evaluation:** OBE provides a framework for assessing student learning based on demonstrable achievement of outcomes. This moves away from rote memorization and encourages assessment methods that evaluate understanding, application, and analytical skills – a key tenet of NEP 2020. It supports the NEP 2020's suggestion to shift from summative to formative assessment to improve learning along the way.
- **Increased Accountability and Quality Assurance:** OBE provides a transparent and measurable system for evaluating the effectiveness of educational programs. This allows for continuous improvement and ensures that institutions are meeting the needs of students and society, as emphasized by NEP 2020's focus on quality and accreditation.



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- **Promoting Holistic Development:** NEP 2020 advocates for integrating vocational and academic streams. OBE can facilitate this by defining outcomes that encompass both cognitive and psychomotor skills, enabling students to acquire practical skills alongside theoretical knowledge.
- **Personalized Learning:** OBE allows for the accommodation of diverse learning needs. Clear learning outcomes can be achieved through different learning paths, catering to individual student strengths and weaknesses, and fulfilling NEP 2020's vision of personalized education.
- **Bridging the Skill Gap:** By defining outcomes aligned with industry needs, OBE can help bridge the gap between education and employment. This is crucial for realizing NEP 2020's goal of preparing students for the future workforce

### Challenges and Implementation Strategies:

While the potential is significant, the successful implementation of OBE within the NEP 2020 framework requires addressing several challenges:

- **Teacher Training:** Educators need comprehensive training on OBE principles, outcome definition, assessment techniques, and curriculum design.
- **Curriculum Redesign:** Existing curricula must be revised to align with clearly defined learning outcomes. This requires significant investment in curriculum development and collaboration between educators and subject matter experts.
- **Assessment Reform:** Transitioning from traditional exams to outcome-based assessments necessitates substantial changes in evaluation practices. This includes developing rubrics, performance-based tasks, and portfolios to measure student achievement of outcomes.
- **Resource Allocation:** Implementing OBE requires investment in technology, infrastructure, and learning resources to support active learning and outcome-based assessment.
- **Stakeholder Engagement:** Successful implementation of OBE requires collaboration between educators, policymakers, industry professionals, and community members.

**Mr. Y.A. Sakpal**  
**Lecturer Mech. Dept.**