MSBTE

MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION, MUMBAI

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NEWS LETTER

News, Views and Insights

Theme

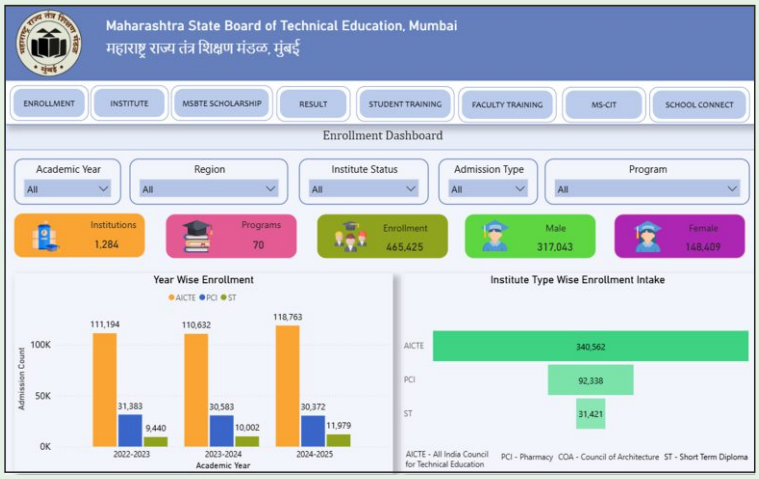
Integrating AI in Engineering Education

Inside....

Theme for the Next Issue:

Use of IoT Devices for Hands-on Learning & Experimentation in Diploma Education

MSBTE's E-Governance Reforms with Enhanced Digital Services

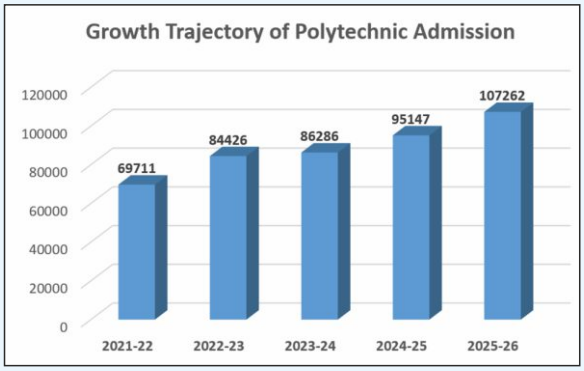


The Maharashtra Government's 150-day e-governance initiative, launched in May 2025, has accelerated the state's mission to build a **"Developed Maharashtra 2047"** through transparent, efficient, and technology-driven governance. The programme aims to bring all major **G2B services online**, strengthen **grievance redressal**, simplify administrative procedures, and enhance digital accessibility for citizens. As a key driver of this digital transformation, **MSBTE has planned to introduce several impactful e-governance reforms**. Recently, it launched two flagship initiatives: the **MSBTE Power BI Dashboard and the Diploma Sathi WhatsApp Chatbot.**

MSBTE Dashboard features KPI Cards, Year-wise Trends, Institute Type Breakdown, Demographics, Geographic Analysis, Program Ranking, and Data Grid. For MSBTE officials, it aids in identifying underperforming regions requiring academic intervention. For institutes, it provides a benchmark to compare performance against state averages or nearby competitors. For students & parents, offers insights into an institute's reputation based on historical pass rates.

The **MSBTE Diploma Sathi WhatsApp Chatbot** offers Instant Intelligent Search, 24/7 Availability, Smart Language Detection, and Auto-Document Fetching. For students, it serves as a round-the-clock digital companion for academic and administrative support. For faculty, it empowers educators with resources and updates, while for institutes, it streamlines administrative compliance. Alongside Diploma Sathi, MSBTE continues to expand online academic services, strengthen digital examination processes, streamline affiliation and approval workflows, and enhance the availability of learning resources on digital platforms. Automated communication tools and transparent service dashboards ensure faster response times and improved user experience for institutes and learners. Through these initiatives, the Maharashtra Government and MSBTE are jointly advancing a modern, student-centric governance ecosystem ensuring **faster services, greater transparency, and seamless digital access** across the technical diploma education sector.

MSBTE Sets Record in Academic Year 2025–26 with Highest-Ever Polytechnic Admissions



Maharashtra has achieved a major milestone in technical diploma education, with **1,07,262 students** securing admission across **394 institutes** to first-year polytechnic programs for **Academic Year 2025–26** the state's **highest enrolment in a decade**. This represents a **13% increase** over Academic Year 2024–25, underscoring a growing preference for practical, skill-oriented education. The steady rise in admissions in recent years is driven by strong industry demand, the affordability of diploma programs, and a heightened focus on acquiring job-ready skills. Branches such as **Electrical, Electronics, IT, and Computer Engineering** remain the most sought- after, propelled by expanding opportunities in technology-driven sectors.

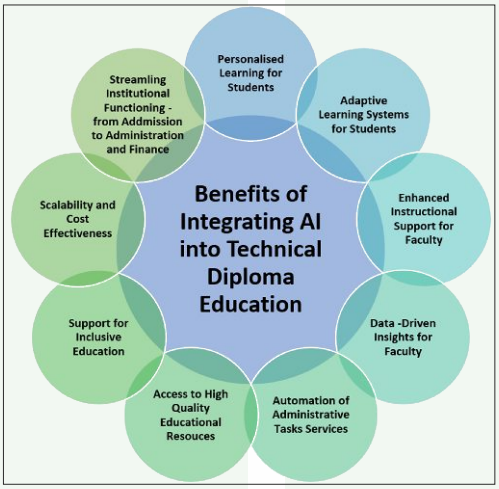
This resurgence reflects a statewide rise in demand, with increased admissions across both urban and district-level institutes. MSBTE has played a important role through a series of forward-looking initiatives, including frequent **curriculum updates** introducing new-age fields like **AI, Data Science, Mechatronics, and Robotics**, stronger **industry collaborations**, and the **School Connect program** introduced by DTE aimed at guiding Class 10 students. The shift toward **outcome-based education**, improved assessment methods, and extensive capacity-building efforts have further enhanced the relevance and credibility of diploma programmes. These initiatives have helped students clearly understand the career pathways and opportunities available after diploma education. Additionally, offering courses in **Bilingual (English - Marathi) Medium** has expanded access for rural and Marathi-medium learners.

With continued investment, industry alignment, and academic reforms, Maharashtra's technical education ecosystem is positioned for sustained growth—reinforcing diploma a robust pathway to both employment and higher education.

Message from Director, MSBTE, Mumbai

Dear Readers,

As we move forward through vibrant Academic Year, I wish to extend my sincere appreciation to our all stakeholders for their unwavering commitment to excellence, innovation, and resilience within technical diploma ecosystem. Over the years, their collective and unwavering support to MSBTE's initiatives and activities continues to drive meaningful transformation in technical education across the state, reinforcing our reputation as **one of the country's leading and future-focused Boards of Technical Education**. The MSBTE newsletter is a vital platform which not only showcases our initiatives, achievements, and milestones but also acts as a crucial medium to share insights, directions, and collective aspirations for the future of technical education. Each edition is carefully crafted around a theme that reflects both current trends and the emerging needs of our academic and industrial landscapes.



AI is now influencing virtually every domain, from manufacturing to healthcare to agriculture to entertainment. Therefore, the theme "Integrating AI in Engineering Education" for this edition has been selected. The integration of AI into Engineering Curriculum is revolutionizing the way technical education is delivered and experienced. This choice is meant to spark critical conversations and encourage proactive steps to prepare our diploma students for an AI-driven future. MSBTE's vision goes beyond merely adding AI topics to curriculum; it requires weaving AI into very fabric of how we teach, learn, and innovate in engineering field which is essential for fostering critical thinking, creativity, ethical awareness, interdisciplinary collaboration, and a spirit of lifelong learning, ensuring our educational ecosystem is responsive, inclusive, and future-ready. To this end, MSBTE has undertaken strategic initiatives to align our diploma with the cutting-edge frontiers of AI and Industry 4.0, empowering students, strengthening faculty capabilities, & positioning our institutions as leaders in AI-driven innovation & research.

Integrating AI into K-Scheme curriculum: MSBTE has taken significant steps to incorporate AI concepts into the updated K-Scheme curriculum across various disciplines. The new curriculum introduces students to machine learning, data analytics, automation, and intelligent systems, ensuring that AI is not restricted to computer engineering but extended to electronics, mechanical, and allied fields. Updated learning materials and lab manuals are being rolled out to make these concepts hands-on, application-oriented, and industry-relevant. The aim is to ensure that students acquire future-ready skills aligned with industry needs and interdisciplinary Learning.

Empowering Educators: Since faculties are true enablers of transformation, MSBTE has initiated a series of Faculty Development Programs, Workshops, and Industrial Training to equip educators with latest AI tools, teaching methodologies, and digital pedagogy. These programs help faculty members confidently introduce AI-related content and leverage AI tools for student engagement, evaluation, and classroom innovation.

Centres of Excellence (CoEs) in AI & Emerging Technologies: In collaboration with **MeitY** (Ministry of Electronics and Information Technology) and organizations like the **National Institute of Electronics & Information Technology (NIELIT),** MSBTE has established **Centres of Excellence (CoEs) in Artificial Intelligence, Robotics, IoT, and Industry 4.0** across Govt. Polytechnics, which serve as innovation hubs, providing infrastructure for hands-on learning, research, and industry collaboration, while nurturing creativity & technical excellence among students & faculty alike.

Fostering Innovation culture through Competitions and Events: MSBTE sponsors and encourages participation in state-level paper presentations, project competitions, technical quizzes, workshops and hackathons. These platforms, some of which are centered on AI and emerging technologies, allow young innovators to apply AI principles to solve real-world problems, develop prototypes, & work collaboratively with peers and industry mentors. By promoting a research-oriented mindset, MSBTE aims to prepare its students to contribute meaningfully to the growing AI ecosystem of Maharashtra and beyond.

Strengthening Industry Partnerships for Training and Internships: MSBTE continues to strengthen its collaborations with leading corporates, and research institutions to ensure that faculties get exposure to emerging technologies through regular industrial training. It also collaborates with industry leaders to offer student's opportunities for internships & exposure to real-world AI applications.

Incorporating AI into diploma engineering provides a multitude of advantages by changing the way students acquire knowledge, tackle problems, and innovate. AI tools can power personalized learning paths, adapting content difficulty and pace to individual student needs, which helps reinforce foundational concepts and allows quicker learners to delve into cutting-edge domains such as machine learning, robotics, and intelligent automation, while simultaneously offering high-quality simulations for mastering critical Industry 4.0 competencies—like predictive maintenance and automated system design—without costly physical infrastructure. This technological shift empowers educators by providing deep analytics and streamlining administrative tasks, liberating them to focus on mentorship and curriculum innovation. At institutional level, AI optimizes key functions from admissions to administration to finance. Ultimately, embedding AI is a strategic imperative that bridges the gap between theory and modern industrial demands, forging a new generation of technically proficient, agile, and future-ready engineers equipped to lead in an automated world.

At MSBTE, we resolutely believe that integrating AI into technical education is more than a curriculum upgrade - it is a paradigm shift. Our commitment is to produce a new generation of diploma engineers who are innovative, analytical, and ethically grounded, capable of harnessing AI to drive progress in every sector. Let us strengthen our collaboration - Polytechnics, Faculty, Students, Industries, and Government - to ensure that Maharashtra remains at the forefront of technological and human development. Together, we can create a smarter, more connected, and more inclusive future.

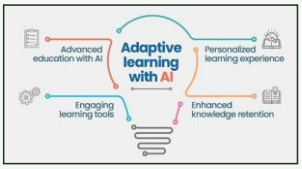
Dr. Pramod Naik
Director, MSBTE, Mumbai

Dear Readers,

In a time when technical education is undergoing a significant transformation, driven by emerging technologies, sustainability goals, and collaborative efforts, MSBTE remains committed to support this change, preparing its diploma students to lead with purpose and adaptability. With this in mind, theme of the current issue, "Integration of Artificial Intelligence (AI) into Engineering Education," offers a great opportunity to redefine teaching and learning processes into diploma education.

Firstly, I would like to highlight a recent report published in October 2025 by Ernst and Young-Parthenon, in partnership with FICCI, named **"Future-Ready Campuses: Unlocking the Power of AI in Higher Education."** This report focuses on a survey of 30 prominent Higher Education Institutions (HEIs) in India, investigating AI implementation in key academic and operational areas - examining usage patterns, governance readiness, curriculum innovation and faculty development. This report indicates that **approximately 60% of HEIs have recognized AI as a strategic priority and have allocated dedicated resources toward it. Moreover, more than half of HEIs (53%) are utilizing generative AI for creating learning materials, while 40% are implementing AI-driven tutoring systems and chatbots. Moreover, 39% have introduced Adaptive Learning Platforms (ALPs), while 38% are deploying AI for automated assessment**. These results highlight ways in which AI is currently influencing curriculum design, assessment models and classroom engagement strategies. The report, however, emphasizes that enhancing student engagement with AI requires clear classroom policies, thoughtful curriculum design and updated institutional governance frameworks.

Let us now concentrate on how 'Adaptive Learning Platforms (ALP)' driven by AI can significantly impact transformation of diploma education when compared to conventional classroom or e-learning approaches. A typical classroom or e-learning methods often utilize a "one-size-fits-all" strategy, where teachers provide same resources to all students. Nonetheless, such uniform instruction delivery may slow down advanced learners while overwhelming those who struggle with the material. However, majority of institutions continue to depend on non-adaptive e-learning systems.



An ALP is an e-learning platform that employs adaptive technologies to dynamically customise educational materials to meet individual students' learning needs, pace, and learning style. These platforms, typically powered by AI, continuously analyse learners' data (e.g. prior knowledge, learning styles) to generate learner profiles, adapt resources, and suggest customized learning paths, enabling each learner to progress on a unique path, enhancing their learning outcomes. These platforms are particularly relevant for technical subjects where students may start at different levels. Additionally, functionalities like language translation and text-to-audio support make complex engineering topics more accessible to students whose first language may not be English. For faculties, the transition is from "teaching everything to everyone" to "monitoring and intervening where needed", thus enhancing effectiveness and results. An "Adaptive Course Builder" can be utilized to design customized modules that correspond with their curriculum, minimizing duplicated efforts. This enables faculty to concentrate more on nurturing creativity, critical thinking, and practical skills that are vital in contemporary engineering practices. For institutions, they support accreditation/ quality assurance and outcome-based education (OBE) frameworks (important for institutes) by generating analytics, standardising tracking of course outcomes, and engagement metrics.

An illustrative instance of ALPs in India pertinent to engineering/technical education is **Quiklrn,** a cloud-based adaptive-learning system that streamlines deployment, course, and content management. It addresses the shortcomings of traditional education. It is selected under the **National Education Alliance for Technology (NEAT) 2.0 initiative of the AICTE under the Ministry of Education, India.** NEAT emphasises OBE, adaptive learning paths, multilingual support, and automated analytics for institutions. Quiklrn's OBE framework incorporates ICT Tools that promote Student-Centric learning for improved Course Outcomes. Quiklrn offers app-based access that can be freely downloaded onto learners' devices. It provides unlimited access to open courseware that is organised as per topic, allowing content integration from various sources, and utilizes Quiklrn's adaptive features to incorporate notes, references, images, weblinks, and more. Its text-to-audio feature reads the content aloud, facilitating better retention. Also, faculty members can accomplish tasks while utilizing their personal devices on the go. Thus, Polytechnics can now streamline Accreditation and digitize Teaching-Learning Processes (TLP) through the adoption of such platforms. Significance of ALPs in the Diploma Engineering Education Framework:

- The content in diploma engineering is more specialised (engineering, technology, labs) than basic college subjects (like maths physics), so the adaptive platform needs to align with engineering/technical syllabus.
- **Faculty willingness & training is essential**: Adaptive platforms work best when faculty engage with analytics and take action, rather than relying solely on the system. Infrastructure must be reliable, especially if students are in remote locations or in polytechnics with varying resources.
- **Curriculum Mapping and Outcome Alignment:** For diploma programs, mapping adaptive system to the specific courses, lab work, project work, and industry outcomes is crucial.
- **Data Privacy, Academic Governance, and Institutional Policy:** Establishing clear guidelines regarding the use of the adaptive platform, data utilization, feedback mechanisms, etc., will improve trust and promote adoption.

At MSBTE, we are dedicated to embracing innovative solutions that prepare our students for the challenges and opportunities of the future. Integrating AI into Diploma Education not only elevates learning experience but also strengthens the bridge between knowledge and practical application, ensuring that students and faculty thrive in a world increasingly shaped by technology. Let's welcome this innovative age of personalized, AI-driven learning and work together to nurture the diploma holders of tomorrow.

Shri. Umesh Nagdeve
Secretary, MSBTE, Mumbai

Host Institute: Government Polytechnic, Kolhapur

The Department of Electrical Engg., Government Polytechnic, Kolhapur, organized an FDP on "Automation & Robotics in Machine Applications" (AUROMA'25) from 15th to 19th Sept. 2025. The program aimed to provide faculty members with in-depth insights into the principles, technologies, and practical implementations of automation and robotics in real-world machine operations. A total of 33 participants actively took part in this enriching training.

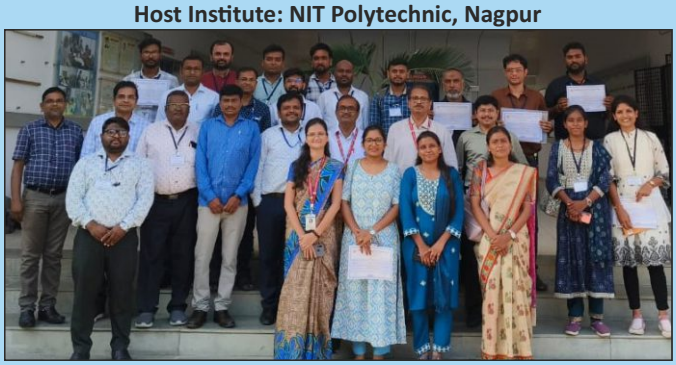
Host Institute: Government Polytechnic, Pune

The Deptt. of Civil Engg., Government Polytechnic, Pune, organized an FDP on "Recent Trends and Innovations in Civil Engineering" from 8th to 12th Sept. 2025. The program featured expert sessions by eminent speakers on RERA, Building Information Modelling (BIM), Sustainable Materials, Robotics in Construction, and Advanced Surveying Techniques. A total of 32 participants who attended, highly appreciated hands-on experience in the Robotics

Host Institute: Rajarambapu Inst. of Technology, Rajaramnagar

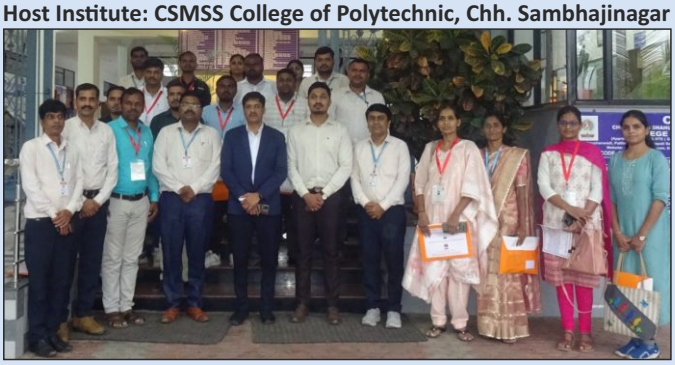
The Department of Electrical Engineering, Rajarambapu Institute of Technology, Rajaramnagar conducted an FDP on "Design and Challenges of Electric Vehicles & Energy Storage Systems" from 18th to 22nd August 2025. The program provided an excellent platform for faculty members to upgrade their knowledge and skills in the dynamic areas of Electric Vehicles (EVs) and Energy Storage Systems (ESS). A total of 27 participants enthusiastically participated in this program.

Host Institute: NIT Polytechnic, Nagpur



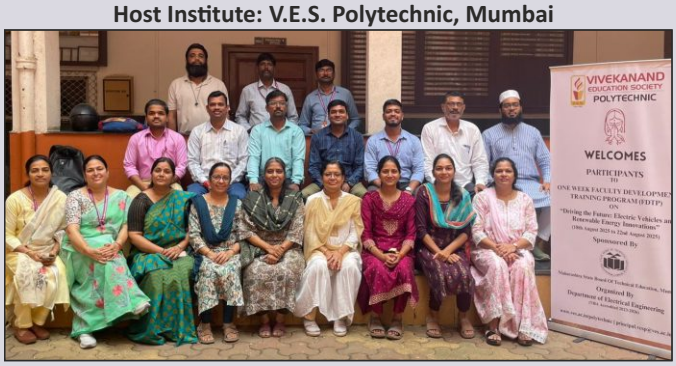
The Department of Mechanical Engg., NIT Polytechnic, Nagpur, conducted an FDP on "Green Energy Technology and Waste Management" from 15th to 19th Sept.2025. The program featured expert sessions, practical demonstrations, and discussions on solar cooling, waste-to-energy technologies, nano-fluids, fuel cells, and energy conservation along with an industrial visit to the 200 MLD Sewage Treatment Plant & Solid Waste Management Facility, Bhandewadi, Nagpur. A total of 26 participants actively took part in this insightful program.

Host Institute: CSMSS College of Polytechnic, Chh. Sambhajinagar



The Department of Civil Engineering (NBA Accredited), CSMSS College of Polytechnic, Chhatrapati Sambhajinagar, organized an FDP on "Advanced Tools for Structural Design and BIM" from 15th to 19th September 2025. The program aimed to enhance faculty proficiency in modern construction and design technologies such as Building Information Modelling (BIM). A total of 19 faculty members actively participated in this technology-driven training program.

Host Institute: V.E.S. Polytechnic, Mumbai



The Department of Electrical Engineering, V.E.S. Polytechnic, Chembur, organized an FDP on "Driving the Future: Electric Vehicles and Renewable Energy Innovations" from 18th to 22nd August 2025. The program featured expert sessions on EV technologies, renewable energy integration, and smart grids, along with a field visit to Tata Indian Institute of Skills, Mumbai. A total of 23 participants actively engaged in this training which also covered project ideation, & government policy insights.

Host Institute: YZVS's, P. Wadhwani College of Pharmacy

Yavatmal Zilla Vikas Samiti's Pataldhamal Wadhwani College of Pharmacy, Yavatmal, organized an FDP on "Current Trends and Future Prospects in Pharmaceutical Academics aligned with New Education Policy" from 18th to 22nd August 2025. The program focused on upgrading knowledge, enhancing teaching pedagogy, promoting professional practices, and building a network of trained faculty, with 32 participants actively taking part.

Host Institute: Sandip Polytechnic, Nashik

The Department of Electrical Engineering, Sandip Polytechnic, Nashik, organized an FDP on "Applications of IoT in Electrical Engineering" from 15th to 19th September 2025. The program aimed at enhancing the knowledge and skills of faculty members in the emerging field of Internet of Things (IoT) and its applications in Electrical Engineering, with 27 participants actively taking part.

Host Institute: Bharati Vidyapeeth College of Pharmacy, Kolhapur

An FDP on "Future-Ready Teaching: AI Tools and Strategies for Pharmacy Educators" was organized by Bharati Vidyapeeth College of Pharmacy, Kolhapur, from 15th to 19th Sept. 2025 which enhance teaching-learning process through AI by promoting innovation, interdisciplinary collaboration, and integration of AI tools in pharmacy education and research. The program empowered 33 faculty with essential AI competencies for effective teaching , research capabilities, and ethical digital practices.

Host Institute: S.E.S. Polytechnic, Solapur

An Faculty Development Training Program (FDTP) on "Artificial Intelligence Application in Civil Engineering with BIM Technology" was organized by the Department of Civil Engineering, S.E.S. Polytechnic, Solapur, from 19th to 23rd August 2025. The program aimed, 22 participants with an understanding of the fundamentals and practical applications of AI while developing hands-on skills in AI and BIM tools for real-world civil engineering applications.

Host Institute: SVERI's Polytechnic, Pandharpur

An FDP on "Emerging Trends in AI and Data Science: Hands-on Experience with Industry 5.0 Tools" was organized by SVERI's Polytechnic, Pandharpur, from 11th to 16th August 2025. The program aimed to equip faculty with advanced knowledge and practical skills in AI, Data Science, and Industry 5.0 tools, bridging the gap between academia and industry. It served as a platform for knowledge sharing and continuous learning, with 27 participants.

Host Institute: S. G. Institute of Pharmaceutical Education & Research, Chulod, Gondia

An FDP was held at Shri Gurudev Institute of Pharmaceutical Education & Research, Chulod, Gondia, from 8th to 12th September 2025, on the theme "Neuro–Herbal Eversion in Pharmacy." The program aimed to enhance understanding of the fundamentals of Research & Development of Neuro-Herbal Remedies, an emerging focus area in Pharmacy and Healthcare. A total of 32 participants actively engaged in this training.

Beyond the Hype: Practical AI Skills for India's Engineering Diploma Students

Let's Be Clear: AI Isn't Just Hype, It's the Job: For engineering diploma students, Artificial Intelligence isn't just a buzzword; it's the new standard. As someone who hires engineers, I can tell you we aren't looking for academic experts. We are looking for practical problem-solvers. This guide is about building real, hands-on skills that Indian industries are hiring for right now. It's about how teachers and students can work together to build solutions that industry needs.

Why This Isn't Optional Anymore: From manufacturing to healthcare, AI is everywhere. It's no longer a "good to have" skill; it's a core competency. We need diploma holders who can use AI tools, not just talk about them. This means knowing how to analyze data, automate a process, or spot a real-world problem AI can solve.

What We (in Industry) Actually Want You to Know: Forget the complex theory for a moment. Focus on **five practical skills**: **Right Language: Learn Python:** It's user-friendly, and it's what most of the industry runs on. It's the tool you'll use to build and test on day one. **Real Problem-Solving:** AI is a tool, not a magic wand. We need you to be the logical thinker. Can you break down a complex factory floor issue into small, logical steps? That's the skill we hire for. **Data is Fuel:** Data handling is the heart of AI. If you can't organize, clean, and analyze basic data (even in Excel or with basic database queries), your AI skills are useless. This is non-negotiable. **ML Fundamentals:** You don't need to be a research scientist. But you must understand the concepts. What is "training" a model? What is "predictive maintenance"? Knowing the basics of tools like TensorFlow shows us you're ready to learn. **Responsible AI:** A model that is biased or insecure is a liability. Understanding fairness and privacy isn't just for philosophers; it's a core engineering requirement for everyone.

Message for Faculty: Make it Real: Teachers, you are the bridge to the industry. Here is how you can help: **Go beyond Textbook:** Show how AI is used in India. How does a local bank's chatbot work? How is AI predicting monsoon patterns or managing local energy use? **Teach Critical Thinking:** Don't just teach the code. Teach logic. Encourage students to ask "why" and "how". Why did this model fail? Why did we choose this algorithm? **Industry Works in Teams:** The "solo genius" is a myth. Real solutions are built in groups. Structure your labs this way. Give students a real problem, make them collaborate, and let them fail and fix it together.

Proof is in Project ('Make in India' Context): Leverage initiatives like AICTE's "AI for All" or partnerships with companies like IBM and Google. But take it a step further**: Don't just build a "smart irrigation system" but** build one for a local farmer's specific crop. Don't just build a "campus Chabot" but build one that can answer queries in a regional language, not just English. **Don't just "optimize energy use** "but show how you can reduce the power bill for your own college campus.

Final Word: We're Hiring Problem-Solvers, Not Robots: Students your diploma is just the beginning. The AI tools we use today will be outdated in 18 months. The most important skill is learning how to learn. We are not hiring "robots" to replace humans. We are hiring engineers who use AI to become better engineers. We want a student who uses AI to analyze data faster, who automates boring tasks to focus on creative design, and who brings curiosity and teamwork to the job.

That is the student who will get hired and build the future.

Monu Shetty

Partner,COO Axenous; CTO, Maximus Technolabs

AI's New Era: Innovation with Trust

The future of Artificial Intelligence (AI) is not only about creating smarter machines but about using them responsibly, with transparency and trust. With proper rules, skilled professionals, and a focus on ethics, AI will continue to improve industries, boost the economy, and enhance our daily lives. AI is growing very quickly and changing how we work, learn, and interact. Earlier, AI models could do only one task at a time but now , we have **multimodal AI** that can understand text, images, videos, and audio all together. New models like **GPT-4o**, **Google Gemini**, and **Claude 3** can reason in real time, analyse videos, and create high-quality content—making them useful across many fields.

New Era of AI Regulation - As AI becomes more influential, governments worldwide are enforcing strict regulations to ensure safety & accountability. These regulations encourage organizations to prioritize **responsible development**, ensuring fairness, privacy protection, and human oversight. ***Examples:*** **European Union AI Act (2024)** is world's first comprehensive AI law, mandating transparency, documentation, and risk management for AI developers. **India AI Mission (2024)** with a ₹10,300 cr. budget, promotes ethical, secure, and responsible AI innovation across the country.

Shifting from Experiments to Real Results - Although many organizations have experimented with AI tools in recent years, few achieved measurable impact. Now, focus has shifted from small pilots to full-scale implementation. Organizations that invest in data quality, skilled professionals, and clear performance metrics are seeing significantly higher returns. ***Examples:*** **Google Health** partnered with hospitals to deploy AI in radiology, enabling early disease detection with higher accuracy.

Race for Computing Power & Energy Efficiency - AI development depends heavily on computing power, making advanced chips and data centres crucial to innovation. Energy efficiency and sustainability are becoming as important as technological progress. ***Examples:*** **Microsoft** is deploying AI-optimized data centres powered by renewable energy and liquid-cooling technologies. **NVIDIA's Blackwell chips** promise higher performance with lower energy consumption, addressing growing environmental concerns.

Strengthening AI Safety & Trust - As AI systems become more capable, safety issues such as misinformation, bias, and data privacy are under scrutiny. These practices highlight global shift toward **trustworthy and transparent AI**. ***Examples:*** **Meta** conducts large-scale "red-teaming" to test AI models for harmful behaviour before public release. **YouTube** now requires creators to disclose AI-generated videos to prevent deception.

Industry-Specific AI Solutions - One of the biggest trends in 2025 is rise of **specialized AI models** tailored for specific sectors which offer higher accuracy and operational benefits than general

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How to Integrate AI in Engineering Education: Artificial Intelligence (AI) is reshaping how engineers learn, think, and work. Rather than viewing AI as a threat, students can use it as a powerful tool to enhance their abilities. Engineering education, once centred on theory and manual calculations, is now benefiting from AI-driven efficiency and innovation. With AI, students can simulate real-world problems, analyse complex datasets, and use machine learning models to predict outcomes - weather forecasting, material behaviour, optimizing energy use, or automating simple systems. Integrating AI into engineering education strengthens problem-solving skills and prepares students for a rapidly evolving technological world.

AI in Educations: Nowadays, many students use AI to complete their daily homework, assignments, and projects. However, this is not the correct way to use AI in academics. AI is designed to support learning — to guide us, clarify concepts, and help us correct our mistakes. Students should use AI as a tool to enhance their understanding and not as a shortcut to finish their work. When AI is used responsibly, it helps strengthen imagination, creativity, analytical skills, and independent thinking.

Use of AI in Professional Domains: In today's modern era, AI is widely used across various professional sectors such as engineering, healthcare, and manufacturing. Its demand is especially high in engineering because of its ability to perform tasks quickly, efficiently, and with significant time savings. This is why AI should be integrated into every branch of engineering. AI helps improve both the working speed and learning capacity of students and professionals in these fields. Instead of using AI merely to complete tasks, individuals should focus on using it to perform their work more effectively. Learning how to build, customize, and apply AI tools can empower students to innovate and create new opportunities. This will lead to create their own job instead of losing job due to AI. AI should be seen as a powerful advantage - not a weakness.

Enhanced Learning: AI supports enhanced learning by powering virtual labs and AI-enabled CAD systems, giving students hands-on experience that goes beyond the limitations of traditional classroom setups. It can also be used to generate daily quizzes based on what students are studying, helping them reinforce their understanding. Additionally, AI can collect and analyze student performance data to identify learning gaps, difficulties, and areas that need improvement. This information helps instructors design better lessons, personalize guidance, and manage complex teaching tasks more effectively.

Integrating AI in Engineering Courses : Courses such as "Introduction to Artificial Intelligence," "Machine Learning for Engineers," and "AI in Automation" have helped us understand the fundamentals of AI and its applications across various branches of engineering. Hands-on sessions in Python programming, data analysis, and image recognition provide opportunities to work on small AI-based projects. For example, some students have developed mini-projects like automated emergency fire vehicle control using sensors, energy-saving systems, and fault detection in mechanical components through image analysis.

Enhancing Skills and Industry Readiness with AI: Beyond academics, learning AI has strengthened our problem-solving skills and teamwork. During project discussions, we exchange ideas, gather data, and use AI tools to produce accurate results. This process boosts creativity, confidence, and familiarity with modern technologies increasingly used in industry. Our teachers also encourage us to join innovation projects and AI-based competitions, giving us practical experience and real-time feedback. It is exciting to see how AI bridges the gap between classroom learning and industry needs. Looking ahead, we hope to have an "AI Learning Lab" where students from all departments can collaborate on AI projects. AI is not just about coding — it is about thinking smarter, exploring new applications, and preparing for the future of engineering.

Conclusion: Integrating AI in engineering education is more than learning a new technology - it transforms how we think, create, and solve problems. When used effectively as a learning and creativity tool, AI enhances analytical skills, imagination, and prepares future engineers to meet industry demands with confidence. By embracing AI as a partner in education, we can cultivate a smarter, more efficient generation of engineers.

Misbha Sagirali Shaikh
Second Year, Mechanical Engineering, VES Polytechnic, Chembur, Mumbai

"Industry - Academia Collaboration for AI in Diploma Education"

Introduction: In the era of rapid technological advancement, AI is becoming an essential skill in all engineering and technology streams. For diploma engineering education, collaboration between industry and academia plays a crucial role in preparing students for the workforce and innovation.

Hands-on Training & Internships: Students gain real-world experience by participating in internships and training programs offered by AI companies. This exposure helps them understand how AI concepts are applied in actual projects and improves employability. **Expert Lectures and Workshops:** Industry professionals deliver lectures, workshops, and hackathons to expose students to the latest AI tools, frameworks, and case studies. Such programs help students understand practical challenges and problem-solving approaches. **Joint Research and Projects:** Collaborative research between diploma colleges and AI industries allows students to work on real-time projects. This fosters innovation, critical thinking, and application of AI in solving practical problems. **AI Labs and Innovation Centers:** Industry support helps establish AI labs equipped with software, hardware, cloud platforms, and datasets. These labs encourage experimentation, prototyping, and innovation among students. **Certification Programs:** Industry collaboration often leads to students earning recognized AI certifications from leading organizations, adding value to their academic credentials and improving job prospects. **Placement Opportunities:** Students who undergo training and internships in industry-oriented AI programs are often directly recruited, bridging the gap between education and employment.

Conclusion: Strong collaboration between industry and academia is essential for AI education. These partnerships bridge the gap between theory & practice, giving students hands-on experience with real-world tools and technologies. Through industry projects, internships, expert lectures, and workshops, students deepen their understanding of AI while developing practical skills and problem-solving abilities needed in modern workplaces. This approach ensures diploma holders are better prepared, confident, and truly industry-ready.

Amarjyotsingh Triloksingh Mehra,
II year, Artificial Intelligence, Siddhivinayak Technical Campus, Shegaon

The Need to Embrace AI in Engineering Education

In today's world, artificial intelligence has become a part of almost every field — from healthcare and business to engineering and entertainment. It has changed how industries work, making processes faster, smarter, and more efficient. However, one area that still limits or avoids the use of AI is the education sector. As diploma students, we are often told not to rely on AI for our studies, but is avoiding it really what matters?

As a student studying Artificial Intelligence and Machine Learning, it feels quite contradictory that we are discouraged from using AI in our own learning. If we are being trained in this field, shouldn't we also be allowed to use it to understand it better? It feels strange to study something that we are not allowed to apply in our real academic work. Learning should evolve with technology, not resist it.

Instead of restricting AI, our education system should include it as an important part of the curriculum. Students should be guided on how to use AI responsibly and effectively, because that is exactly what industries now expect. Limiting its use goes against the very purpose of AI — to simplify complex work, reduce time-consuming tasks, and encourage smarter ways of learning.

By introducing AI-friendly courses, students can save time on repetitive tasks like report writing. This time can instead be used for developing ideas, understanding concepts deeply, and improving practical skills. AI can make learning more efficient, creative, and enjoyable rather than mechanical and stressful.

Almost every field today has adopted AI to grow faster, yet education especially in engineering seems to be lagging behind. The next generation of innovators will not be those who can only work hard manually, but those who can think creatively and use AI as a powerful tool. Restricting students from using it will only limit their progress, while integrating AI into education can help them build confidence, creativity, and innovation.

Many people believe that AI is a threat to human creativity, and while that concern is valid to some extent, it depends completely on how we use it. AI is like a double-edged sword — it can be harmful if misused, but it can also be extremely beneficial when used wisely. Students who learn to use AI correctly can reach levels of understanding and achievement that would otherwise take much longer.

Founder of OpenAI once mentioned that the people who know how to use AI will be the ones who succeed in the AI age. This shows that those who fail to adapt may be left behind. If this is the reality of modern industries, then why are students still being taught to think like the previous generation? Education should evolve with time & match the pace of technological change.

Can AI be a threat to students? The answer is both yes and no. It depends entirely on how students choose to use it. If used only for shortcuts, it can weaken learning. But if used to understand, explore, and enhance creativity, it becomes a tool for growth.

I feel a revolution in the education system is necessary — not only in engineering but across all areas of study. Just like the world moved towards Industry 4.0, we now need an Education 2.0 revolution where AI becomes a helping hand in learning. Education should prepare students for the world that exists today, not the one that existed decades ago.

Ms. Swara Tushar Hande,
3rd Year , AL & ML Deptt., Agnel Polytechnic, Navi Mumbai.

Integrating AI in Engineering Education for Industry 4.0

Diploma engineering education, a key foundation for the industrial workforce, is evolving to meet the demands of Industry 4.0 — an era of automation, smart systems, and data-driven innovation. Traditional skills are no longer sufficient; today's engineers need AI-enabled competencies. Educational institutions are introducing AI-focused modules in robotics, data analytics, and automation. Through AI-powered simulations and digital labs, students gain practical experience and real-world problem-solving skills aligned with modern industry needs.

Aim and Objective: The primary aim is to help diploma engineer's transition from handling conventional machines to managing and collaborating with AI-based smart systems. This isn't just an academic upgrade— it's a cross-disciplinary transformation with a focus on: **Smart Manufacturing:** Leveraging AI for predictive maintenance and optimizing production efficiency. **Automation:** Understanding how AI integrates into robotics and industrial control systems. **Data Literacy:** Interpreting complex datasets to support informed and efficient decision-making.

Curriculum Transformation -

Developing Core AI and Data Science Skills: Foundational courses in artificial intelligence, machine learning, and data science are preparing students to tackle modern engineering challenges with analytical precision.

Adapting to Automation, Robotics, and Smart Technologies: Specialized training in robotics, mechatronics, and automation equips learners to operate intelligent, adaptive systems used in smart industries.

Promoting Industry-Oriented Training and Practical Exposure: Hands-on training with real-world tools and technologies ensures graduates are industry-ready and capable of adapting to evolving workplace demands.

Collaborative Path Forward: Experts stress that collaboration between academia and industry is essential to make AI education more experiential and employment-focused. Aligned with the National Education Policy (NEP) 2020, several technical boards (including MSBTE) have already initiated such reforms. By embracing this AI-driven educational evolution, diploma programs are cultivating a new generation of skilled, future-ready engineers capable of driving innovation and sustaining the progress of Industry 4.0.

Sibananda Sahu
Pharmacy Deptt., Armed Forces Medical College, Pune.

Industry Speak ... Cont. from page no. 06

purpose AI. ***Examples: For Healthcare,*** **IBM Watson** assists doctors in cancer diagnosis and treatment planning. ***For Finance,*** **HDFC Bank** and **Kotak Mahindra Bank** use AI to detect fraud and monitor transactions in real time. ***For Manufacturing,*** **Siemens** and **Mahindra & Mahindra** use AI-based digital twins to improve production efficiency and supply chain forecasting.

Changing Workforce: AI is reshaping job market by changing roles, not eliminating them. New positions such as **AI Product Manager**, **Data Auditor**, and **Prompt Engineer** are in high demand. Skill development has become essential for students and professionals entering an AI-driven world.

Mr. Mohit R. Kankriya, Software Test Specialist, Amdocs, Pune

In today's rapidly transforming world, Artificial Intelligence (AI) is reshaping every sector, and education is no exception. To keep pace, academic institution must evolve to become AI-friendly. This shift goes beyond technology adoption - it requires strong digital infrastructure, skilled human resources, ethical practices, and a culture of innovation and lifelong learning. The first step towards becoming AI-friendly is assessing the current readiness of the institution. This includes evaluating the availability of computer laboratories, high-speed internet, smart boards, projectors, and servers. It is equally important to understand the technical skills of teachers and staff, and to gauge the digital literacy of students. Such an assessment helps identify strengths and gaps that need to be addressed for a smooth transition.

Once the current preparedness is understood, next step is to strengthen infrastructure. Institutions must invest in high-performance computers, GPU-enabled devices, and secure data centers. Using cloud-based platforms like Google Cloud, AWS, or Microsoft Azure enhances accessibility, scalability, and data protection. These technological foundations ensure that institution is capable of helping advanced AI-based learning tools.

Training teachers and staff is equally essential. Faculty should learn to use AI tools such as ChatGPT, Google Bard, and Copilot. Regular workshops on AI pedagogy, ethics, and data privacy help ensure responsible and effective use. Integrating AI into the curriculum - from basic concepts at lower levels to advanced topics and project-based learning at higher levels - fosters analytical thinking and innovation.

AI can also be effectively integrated into daily academic and administrative operations. Automated attendance tracking, adaptive learning platforms, and AI-supported evaluation systems can significantly improve efficiency. Data-driven decision-making further strengthens the institution's ability to monitor student performance, identify learning patterns, and provide timely support.

Becoming an AI-friendly institute is a continuous process of learning, improvement, and adaptation. Through proper planning, collaboration, and ethical practices, educational institutions can create a technology-empowered environment that is student-centric, innovative, and well-prepared for the challenges of the AI-driven future.

Mr. Suyog Subhashchandra Dhoot
Lecturer, IT Dept, K. K. Wagh Polytechnic, Nashik

Applications of AI in Engineering Fields

AI has moved far beyond computer science and is now transforming virtually every engineering field. It is driving promising and impactfull advancements across numerous engineering fields. In the era of Industry 4.0, it serves as the key link connecting mechanical, electrical, civil and many other engg. domains.

Mechanical Engg.: AI explores thousands of design possibilities based on parameters like strength, weight, and materials, helping engineers find optimal solutions quickly. It enhances simulation accuracy in Finite Element Analysis (FEA) and Computational Fluid Dynamics (CFD), reducing the need for physical prototypes. AI automates Computer-Aided Design tasks, analyzes machine sensor data for predictive maintenance, and uses computer vision for high-accuracy defect detection. It also optimizes manufacturing processes such as 3D printing and CNC machining.

Chemical Engg.: AI enables real-time monitoring and control of chemical processes, improving safety and efficiency. ML predicts reaction outcomes and reduces trial-and-error experiments. It identifies energy-saving opportunities, detects safety risks early, & supports predictive maintenance. AI also monitors emissions & environmental data to ensure regulatory compliance.

Civil Engineering: AI simulates structural performance under extreme conditions like earthquakes or high winds and assists in creating advanced concrete mixes. AI-powered systems monitor construction sites for hazards and predict delays, budget issues, and resource shortages. It optimizes project schedules, automates tasks like CAD estimation, and uses sensors and vision systems to monitor infrastructure health. AI detects defects such as concrete cracks & supports waste management optimization.

Computer Engineering: AI is reshaping automation and problem-solving by enabling systems that learn, adapt, and optimize workflows. Applications span voice and image recognition, autonomous vehicles, and predictive analytics. Machine learning drives data analysis, modeling, and decision-making, allowing systems to improve over time. As robots operate in diverse environments, AI is essential for decision-making and adaptability.

Electrical Engineering: AI predicts energy demand and renewable energy output, improving grid stability and efficiency. It detects faults in power networks, supports predictive equipment maintenance, and enables virtual sensors for cost-effective monitoring. AI helps design smarter circuit layouts, enhances real-time control mechanisms, and uses deep learning to improve digital signal processing in communication and audio systems.

Aerospace Engg.: AI runs advanced aerodynamic simulations and enhances manufacturing inspections. It predicts component failures for proactive maintenance and optimizes flight paths for fuel efficiency and safety. AI improves supply-chain management, monitors aircraft health in real time, and is crucial for autonomous aircraft and UAV development. It enhances air traffic control and provides pilots with data-driven decision support.

Biomedical Engineering: AI interprets medical imaging with high accuracy, accelerating diagnosis. It speeds up drug discovery by predicting compound properties and improves medical devices like smart prosthetics and wearable's. AI supports personalized medicine through genomic data analysis, assists surgeons with real-time insights, and predicts disease progression for early interventions. It also processes genomic data to uncover disease-related genetic pattern.

Conclusion: Engineering's future will be shaped by cross-disciplinary collaboration, with AI serving as the unifying force. Modern engineers must combine domain expertise with the ability to apply AI across diverse contexts. Teaching AI has therefore become essential, enabling future engineers to create intelligent, responsible, and sustainable solutions. As educators, we must inspire innovation and expand perspectives. Ultimately, AI is not taking over engineering; it is transforming what it means to be an engineer.

Mr. Raviraj Nargide
Academic Co-ordinator, Ajeenkya DY School of Engg., Lohegaon, Pune

The Synergist's Crucible: Re-forging Engineering Education in the Age of AI

The traditional model of engineering education, built on deterministic concepts and manual calculations, is facing a transformative disruption: Artificial Intelligence. This is not merely a new tool or course; it demands a shift in pedagogy. The goal is not just to teach engineers to use AI, but to create a new type of professional—the "AI-Synergist Engineer," who uses computational intelligence as another layer of cognitive and creative capacity.

Transcending the Calculator: From Tool-Wielder to Co-Designer: For decades, engineers have used computational tools as sophisticated calculators for predefined tasks. AI completely breaks this paradigm. Imagine a civil engineering student is not just running a finite element analysis on a bridge concept, but collaborating with generative AI proposing entirely different, biomimetic truss concepts optimised for stress and material efficiency. The engineer's role shifts from sole creator to curator, validator, and conductor of algorithmic creativity. The core skill shifts from performing the calculation to architecting the problem for the AI and critically interrogating its solutions.

Cultivating Augmented Intellect: Integrating AI meaningfully requires rethinking core engineering courses. In thermodynamics, students could collaborate with AI to explore complex phase spaces beyond textbook cycles. In control systems, they might train reinforcement learning models to manage unstable platforms like flexible-wing drones. Here, augmented intellect emerges—human intuition amplified by AI's ability to search high-dimensional design spaces and uncover non-intuitive patterns. This augmentation must be balanced by a renewed emphasis on ethics and fundamentals. An AI may design an elegant antenna, but only a human can question robustness, interference issues, sustainability, and societal impact. Courses should therefore include topics like Ethics of Autonomous Systems and AI Assurance, ensuring engineers remain the ethical anchor and ultimate decision-makers.

Dynamic Atelier: A Living Laboratory: The educational environment itself must change from a lecture hall to a vibrant atelier—a living lab of human-machine partnership. Project-based learning, reversibly, becomes the central nervous system to education. A student team could, for example, be tasked with leveraging AI to create a zero-energy water purification system for a biome of their choosing, using a background of environmental, chemical, and electrical engineering and collaborating with their AI tools. The educational space supports not only technical agility, but also the imperative "soft skills" of interdisciplinary communication, systems thinking, and creative leadership.

Imperative of Cognitive Fluency: In the final analysis, it is not a question of whether we should integrate AI into engineering education; it is a necessity. The engineers who will lead the future will be the ones who are not just literate in AI, they will be cognitively fluent in this new partnership. These engineers will learn the AI is not a replacement for deep engineering wisdom, it is the most powerful partner to deep engineering knowledge. By creating this synergistic relationship genuinely in the crucible of academia, we aren't just updating a syllabus; we are building the future of the profession together—a future where human creativity and artificial intelligence come together to solve the grand challenges ahead.

Prof. Hemantkumar P. Gawade
Lecturer, Mech. Engg. Deptt., Rajarambapu Institute of Technology, Sangli

Pedagogical Methods for Diploma Faculty Enhanced by AI

The integration of Artificial Intelligence (AI) into diploma education has transformed the instructional and evaluative roles of faculty, shifting teaching from a traditional, one-size-fits-all model to adaptive, data-driven pedagogy. AI allows educators to personalize learning, boost student engagement, and streamline assessment with greater precision and efficiency. With free, easy-to-use AI tools, teachers can reduce manual workload, save preparation time, enhance critical thinking, and tailor learning experiences. Acting as a digital partner, AI automates routine tasks, generates content, and provides intelligent feedback, enabling educators to focus on mentoring, innovation, and higher-order learning outcomes.

Fig. Uses of AI in Education

In the sphere of teaching and content creation, ChatGPT (Free Plan), Copilot, and Google Bard act as intelligent teaching assistants, helping educators develop lesson plans, quizzes, and simplified explanations for complex topics. Tools like SlidesAI.io and Tome.app can automatically convert text into visually engaging presentations, enabling teachers to prepare high-quality instructional materials in minutes. For interactive and personalized learning, EdApp by SafetyCulture (Free Plan) and Socrative (Free Plan) offer adaptive micro-lessons and instant feedback quizzes that cater to varied learning speeds and styles. Additionally, Canva and Genially AI for Education provides free AI-enhanced templates for designing attractive info-graphics, posters, and educational visuals - saving both time and effort in material preparation.

In technical and practical subjects, PhET Interactive Simulations and LabXchange allow students to perform experiments in AI-supported virtual labs, bridging theory and practice while fostering analytical and problem-solving abilities. For efficient assessment, Google Forms with AI add-ons, Quizizz, ClassPoint, and Gradescope automate grading, track performance, and generate detailed learning analytics - all of which reduce repetitive manual correction work. Faculty can use Grammarly (Free Plan) to provide immediate feedback on student writing, while Edpuzzle transforms videos into interactive lessons with embedded AI-generated questions that promote critical reflection.

Conclusion: AI is not just a technological enhancement — it is a transformational tool that helps diploma faculty become more productive, reflective, and student-focused. By automating routine tasks, saving time, and supporting the development of critical thinking among learners, AI enables teachers to focus on creativity, innovation, and mentorship. The thoughtful use of free AI tools creates a smarter, more comprehensive, and future-ready diploma education system where human insight and artificial intelligence work together to inspire lifelong learning.

Priti Balu Kudal
AI & ML Deptt., Guru Gobind Singh Polytechnic Nashik

Mr. Vinay Kalaskar is a distinguished professional in the printing industry, with over 36 years of experience shaped by strong technical foundations and an entrepreneurial spirit. A Diploma holder from the Maharashtra Institute of Printing Technology (MIPT), Pune, he built his early expertise through hands-on learning. His career began with international exposure in Sharjah, UAE, a transformative phase that broadened his outlook and set the stage for his future ventures.

In 1992, he established Bit Bytes, specializing in Graphic Design, Screen Printing, and Printing Services. His entrepreneurial journey progressed further when he co-founded Avishkaar Industries in 2009, strengthening his footprint in the industry. Throughout his career, he has been widely recognized for his meaningful contributions to the printing sector. Besides, he remained deeply committed to nurturing young talent, offering apprenticeships and supporting inclusive employment by providing opportunities to differently abled individuals.

As an active MIPT alumnus, he has contributed to curriculum design and served as a guest lecturer, sharing his expertise with upcoming professionals. Known for his perfectionism and dedication, he continuously upgrades his knowledge by participating in exhibitions, seminars, and industry forums. His involvement with The Media Club helped him build strong connections across the media and advertising landscape.

An active member of the Poona Press Owners Association (PPOA) since 2015, Mr. Kalaskar currently serves as Secretary of its Education and Publication Committee and the Mudran Sahitya Bhandar Committee. Under his leadership, PPOA members benefited from MSME support to attend the International Drupa Exhibition in 2016. Nationally, he has been an active General Council and Governing Body member of the All India Federation of Master Printers (AIFMP) for eight years. He has chaired the Hospitality Committee and now serves as Co-Chairman of the Education and Training Committee,

Looking ahead, Mr. Kalaskar continues to champion innovation and growth in the printing industry. His deep passion for the field shines through in his work, his forward-thinking ideas, and his drive to create a wider and more meaningful impact. His remarkable journey stands as a powerful example of unwavering dedication, strong leadership, and an inspiring attitude. His achievements not only highlight his technical expertise from an MSBTE-affiliated institute but also underscore his lasting commitment to advancing and shaping the future of the printing industry.

Mr. Vinay Kalaskar,

Founder, Bit Bytes Print Media Service, Pune

Student News -Awards & Achievements

Rutuja Rode, a Second-Year student of the Artificial Intelligence and Machine Learning Department at MIT Polytechnic, Chhatrapati Sambhajinagar, has been selected as a Google Student Ambassador, recognizing her dedication, technological aptitude, and commitment to innovation. This role provides her with opportunities for global learning, leadership, and collaboration with Google.

Pushpa Lilhare from Govindrao Wanjari College of Engineering & Technology, Nagpur, won 1st place in both the 200m and 400m running races held at Shri Sai Polytechnic, Chandrapur, under the IEDSS event, demonstrating exceptional athletic skill and endurance.

Ansh Kothekar from Govindrao Wanjari College of Engineering & Technology, Nagpur, emerged as the winner in the weightlifting competition held at G. H. Raisoni Polytechnic, Nagpur, showcasing his outstanding strength and sportsmanship.

Students of Satpuda Institute of Pharmacy, Shegaon, brought laurels to the institute by winning Third Prize in the State-Level Poster Presentation Competition held on 13th October 2025 at Dr. R. N. Lahoti Institute of Pharmaceutical Education and Research, Sultanpur. Aditya Wasamkar and Prakash Zadokar presented their poster on *"Advanced Evaluation of Herbal Drug"*, which was appreciated for its clarity, innovation, and scientific depth.

Honoured as "Marathi Bhasha Yuva Doot"

Sharvari Virendra Sutavane, a Third-Year Computer Engineering student at Marathwada Institute of Technology, Polytechnic, Chhatrapati Sambhajinagar, has been selected among the Top 100 "Marathi Bhasha Yuva Doots" in the online elocution competition conducted by the Marathi Language Department, Government of Maharashtra in September 2025. Her exceptional oratory skills in Marathi earned her this prestigious recognition.

Pratibha Vilas Wayse, a Second-Year D. Pharmacy student at Keshavrao Patil Institute of Pharmacy, Dharashiv, secured First Prize and a trophy at the 2nd State-Level Quiz Competition held at the institute on 10th September 2025. Her outstanding performance brought pride to the institute.

Alisha Jamal Pathan, a Civil Engineering student of Sau. Sundarbai Manik Adsul Polytechnic, Chas, Ahilyanagar, secured the First Prize at the Pandit Deen Dayal Upadhyaya Hirak Mohotsav District Level Speech Competition 2025, held on 1st October 2025 at Govt. Polytechnic, Ahilyanagar.

Sakshi N. Gatakal & Sidhhi A. Salunkhe of the Computer Deptt. at Sau. Sundarbai Manik Adsul Polytechnic, Ahilyanagar, secured the First Rank in the Poster Presentation Competition on the theme *"Indian Education in the Thoughts of Pandit Deendayal."* on 1st October 2025 at Government Polytechnic, Ahilyanagar, as Pandit Deendayal Upadhyay Birth Anniversary celebrations.

Journey from Excellence to Eminence:
Success Story of Government Polytechnic, Khamgaon

Government Polytechnic Khamgaon, established in 1961, is a premier Government institute under the Directorate of Technical Education, Maharashtra State, renowned for imparting quality technical education in the region and is affiliated to the Maharashtra State Board of Technical Education, Mumbai. The institute has consistently contributed to technical education and skill development for over six decades. The institute offers diploma programs in **Mechanical, Civil, Electrical, Computer, and Electronics & Communication Engineering** with an annual intake of **360 students**, consistently achieving **100% admissions**. With its focus on **practical learning, innovation, and employability**, the institute has evolved from a conventional diploma institute into a dynamic **centre of academic and industrial excellence.** Catering primarily to students from rural backgrounds, the institute's **qualified and dedicated faculty**, **modern laboratories**, and **digital infrastructure** foster confidence, creativity & professional competence. The institute is committed to producing **skilled, ethical technocrats** who contribute to national development and meet global challenges.

Committed to Academic Brilliance and Beyond: The institute observes Outcome-Based Education (OBE) and continuously updates its teaching-learning process through project-based learning, industry interaction, and continuous assessment closely monitored by Academic Monitoring Cell (ACC) and Internal Quality Assurance Cell (IQAC) of the Institute. Faculty members actively engage in curriculum development, research, and faculty development programs organized by MSBTE and AICTE. The consistent excellent academic results and commendable student performance in state-level and national-level curricular, co-curricular competitions and IEDSSA sports reflects the commitment of both students and faculty.

NBA Accreditation: Symbol of Quality and Commitment: The success of the institute is deeply attributed to the inspiring leadership and unwavering support of Dr. Vinod Mohitkar, Director of Technical Education and Dr. Pramod Naik Director of MSBTE. Under the visionary and dynamic leadership of Dr. Sameer Prabhune, Principal, the institute has witnessed remarkable advancements in infrastructure, quality education, and industry collaboration resulting to NBA Accreditation for 4 programs and excellent grade in MSBTE external monitoring to the remaining one programme confirming a testament to its adherence towards quality parameters and educational excellence.

Fostering Industry–Institute Synergy for Career Excellence: The institute has established a strong and meaningful bridge between academia and industry, ensuring that technical education remains both relevant and dynamic. The institute actively collaborates with various industrial organizations through MoUs, industrial visits, expert lectures, workshops, and internship programs. These interactions provide students with valuable exposure to real-world practices, industrial trends, and emerging technologies, complementing their classroom learning with practical experience ensuring placements in reputed industries.

Milestone of Merit: Honoured with ISTE-Narsee Monjee Award: The institute had achieved a prestigious milestone by receiving the ISTE-Narsee Monjee Award in the year 2000 for outstanding performance and excellence in technical education. This national-level recognition, instituted by the All India Council for Technical Education, honours polytechnic institutions that demonstrate exemplary achievements in academics, administration, and community development.

Together We Grow... Alumni for Excellence: Over 2,300 dedicated members are enrolled with the association. Through the voluntary contributions, the association provides scholarships to achievers, learning material, books and financial support and mentorship to economically weaker students every year ensuring inclusiveness and equal opportunities for all. The donations of alumni to the institution in various forms reaches over Rs.3 lakh and fixed deposits worth Rs 25 Lakhs. Alumni association has its own office in the institute premises.

Face-Lifting Schemes: Transforming Campus, Inspiring Excellence: The institute is undergoing a major transformation through face-lifting schemes costing Rs 893.88 lakhs are being implemented under the guidance of the Hon. Directorate of Technical Education, Maharashtra. These schemes have contributed significantly to the overall modernization of the campus including the renovation of laboratories, upgradation of classrooms, improvement of campus aesthetics, enhancement of digital infrastructure, and creation of student-friendly learning environments. The implementation of these initiatives will not only improve the academic ambiance but also boost the morale of students and staff, contributing to the institute's success in accreditation, placements, and related initiatives.

Snapshots at a Glance

- *100% Admission every year*
- *NBA Accreditation of Civil, Computer, Electrical Electronics & Communication Engineering programs*
- *Remarkable Student's Placements with Strong Industry Linkages*
- *Strong and Committed Alumni Network*
- *Highly Qualified, Experienced and Dedicated Faculty & Staff*
- *Transformation of infrastructure through face lift drive worth Rs 8.93cr*
- *State of Art MSBTE and CET Laboratories*
- *Academic Excellence with overall development of students*
- *Seamless transition of Diploma Students to Degree level Through Lateral Entry*

CET Center and MSBTE Computer Labs: The institute proudly houses a state-of-the-art CET Examination Center and well-equipped MSBTE Computer Laboratories, reflecting its strong commitment to digital excellence and modern technical education. These advanced facilities not only support academic and examination activities but also promote hands-on learning, innovation, and research culture among students. By integrating technology with education, the institute continues to empower learners with the skills and confidence needed for success in the modern industrial world.

Continuing Journey: Excellence to Eminence: The journey of the institute stands as a shining example of dedication, progress, and excellence in technical education through continuous innovation, strong industry connect, committed faculty, and the active support of alumni. As it moves forward with renewed energy and purpose, ***Government Polytechnic, Khamgaon*** continues to nurture skilled, responsible, and innovative professionals who will shape the nation's future with knowledge, integrity & pride.

Workshop on "Protecting Intellectual Property Rights"

Deptt. of Electrical Engg. at Marathwada Institute of Technology Polytechnic, Chh. Sambhajinagar, organized a workshop on "Protecting Intellectual Property Rights" on 14th August 2025 under Institution's Innovation Council. The session saw participation from 240 students and 12 faculty members. Dr. A. P. Maharolkar, Asst. Professor, JES College, Jalna, conducted the workshop, covering patents, copyrights, trademarks, and geographical indications, highlighting the importance of IPR for students and modern innovators.

State Level Technical Quiz Competition

Vidyalankar Polytechnic conducted the State Level Technical Quiz on 4th October 2025, bringing together over 110 students from 35 diploma colleges for a competitive showcase in Computer and Electronics Engg. Teams of two participated in multiple rounds, with the initial quizzes held through a custom-designed application for a smooth and interactive experience, and the final round led by Quiz Masters Mr. Amaya Samant and Mr. Rodrigs, adding expertise and excitement to the event.

E-CAR RACE Competition

Electronics & Telecom. Engg. Deptt. of Shri Siddheshwar Women's Polytechnic, Solapur, in collaboration with ISTE, New Delhi, organized a one-day E-CAR RACE Competition on 20th September 2025, witnessing enthusiastic participation from 147 students across diploma colleges in Mumbai, Pune, Solapur, Barshi, Akkalkot, Sangola, and Pandharpur. The event featured electrically powered, non-destructive E-cars navigating an obstacle-filled track, showcasing students' technical skills, precision, control, and innovation.

Expert Session on "Start-up Ecosystem & MSBTE - Bhau Program."

The EDP cell and Incubation Cell of NIT Polytechnic, Nagpur, organized an expert session on "Start-up Ecosystem and MSBTE–Bhau Program" on 7th October 2025, featuring Mr. Swapnil Mali, AGM of COEP's Bhau Institute. Addressing final-year students, he explained the support, mentorship, and funding opportunities available through the Bhau Program, shared examples of startups, and encouraged students to develop entrepreneurial thinking.

Welcome to MSBTE

Dr. Arvind G Mahajan,
System Analyst, MSBTE, Regional Office, Mumbai

"AI is a mirror, reflecting not only our intellect, but our values and fears."

– Ravi Narayanan,
VP of Insights & Analytics, Nisum

Workshop on "Modern Surveying Technologies Using Total Station and DGPS"

Vidya Pratishthan Polytechnic, Indapur, conducted a five-day workshop on "Modern Surveying Technologies Using Total Station and DGPS" from 25th to 30th August 2025, in collaboration with Sachita Pratishthan, Baramati. It was guided by Mr. Sachinkumar Kulthe, training was provided by Mr. Chavan and Mr. Rathod. The workshop provided students with practical skills in DGPS road profiling, total station contouring and layout work, and AutoCAD drafting, offering valuable hands-on exposure to modern surveying tools.

PitchNova 2025

Agnel Polytechnic's **APV Entrepreneurship Cell** successfully hosted **PitchNova 2025** on 25 August 2025, providing students a platform to pitch innovative startup ideas before a distinguished jury. Participants presented ideas spanning technology, sustainability, and healthcare, receiving valuable insights on feasibility and scalability. Enot Alliance won 1st Prize for an AI-based legal assistance app.

Höganäs India Pvt. Ltd., Sets Up Industrial Safety Lab

Höganäs India Pvt. Ltd., Ahilyanagar, inaugurated **Industrial Safety Lab** at Dr. Vikhe Patil Polytechnic, Loni, on **10th Oct. 2025** under its CSR initiative, at a cost of Rs. 3 lakh. The lab, inaugurated by Dr. Sharad Magar and other dignitaries, aims to provide students with practical knowledge of industrial safety, enhancing their industry readiness and promoting workplace safety practices.

"Personality Development and Interview Techniques"

SNJB's Shri Hiralal Hastimal Polytechnic, Chandwad, organized a three-day workshop on "Personality Development and Interview Techniques" from 23rd to 25th September 2025 for final-year students. Sessions were conducted by Mr. Vaibhav Kulkarni, Mr. Madhukar Dube, and Prof. Leena R. Lassi, covering personality development, resume writing, interview skills. The workshop benefited 350 students.

Entrepreneurship Awareness Camp

Cusrow Wadia Institute of Technology (CWIT), in collaboration with its alumni association **CWITIAN**, organized a **three-day Entrepreneurship Awareness Camp** from 26th to 28th September 2025 on campus. The camp aimed to introduce final-year students to entrepreneurship as a viable career option. The program was inaugurated by **Dr. A.S. Chandak**, Principal, CWIT, and **Shri D.S. Molak**, President, CWITIAN. The event witnessed enthusiastic participation from over 150 students.

ATAL FDP on "Application of Semiconductors, Sensors and Drones in Smart Agriculture"

Tulsiramji Gaikwad-Patil College of Engineering and Technology and Polytechnic, Nagpur, organized a one-week AICTE-ATAL Sponsored FDP on *"Application of Semiconductors, Sensors, and Drones in Smart Agriculture"* starting 6th October 2025. The program was graced by Hon'ble Dr. Vijay Waghmare, Director, ICAR-Central Institute for Cotton Research, Nagpur, as Chief Guest, and Hon'ble Dr. Sanjay Balamwar, Senior Scientist, MRSAC Nagpur, as Guest of Honour. Experts from IITs, NITs, and relevant industries conducted sessions, with participants from Tamil Nadu, Andhra Pradesh, Punjab, and Maharashtra.

FDP on "Curriculum Implementation & Academic Audit Norms"

NMKC Polytechnic, Jalgaon, organized a State-Level Faculty Development Program (FDP) on *"CIAAN Norms"* (Curriculum Implementation and Academic Audit Norms) on 8th October 2025, under the guidance of MSBTE, Mumbai. The program aimed to equip diploma faculty with a clear understanding of the K-Scheme academic structure and implementation requirements. Prof. K. P. Akole, HoD, G. P. Jalgaon, was the key speaker. The FDP benefited over 40 faculty members across Maharashtra.

Faculty Achievements

Mr. Ratnakar Lande, Assistant Professor, Deptt. of Mech. Engg., G. H. Raisoni College of Engineering & Management, Nagpur, presented a research paper *"The Current State of Materials Used in Friction-Based Additive Manufacturing for Dental Crowns: Limitations,Opportunities, and Future Trends"* at the 4th International Conference on Friction-Based Processes 2025 at IIT Tirupati, in association with IIT Patna, IIT Dharwad, and IISc Bangalore, held from 6th - 8th Sept. 2025.

Four faculty members of Guru Gobind Singh Polytechnic, Nashik, Prof. Sadashiv More , Prof. Harshal Derle , and Prof. Ganesh Wagh & Prof. Naresh Jadhav successfully participated in the "Train the Trainer" program organized by Bosch India Foundation in collaboration with CRISP, Bhopal, held from 29th to 31st October 2025. The program focussed on enhancing trainers' competence in automotive technology, practical skills, customer interaction, and industry-oriented teaching methodologies.

National Teachers' Award 2025

Prof. Purushottam Balasaheb Pawar, Deptt. of Mechanical Engg., Institute of Technology and Engineering, Baramati, has been conferred the National Teachers' Award 2025. This esteemed national honor, was presented by the Hon'ble President of India, Smt. Droupadi Murmu, in special ceremony at Vigyan Bhawan, New Delhi, on Teachers' Day, 5th Sept. 2025.

PhD Awarded

Dr. Deepak A. Kulkarni, HoD (EJ) at Kala Vidya Mandir IoT, Mumbai, has completed his Ph.D. from ISBM University in July 2025. His thesis, *"Design and Development of Automated Predicting and Preventing Time System for Health Monitoring Transformer at Distribution End,"* under a guidance of Dr. N. Kumar Swamy, Dean, ISBM University.

Dr. Shrishail Malewadi, HoD, H&S Deptt., Shri Siddheshwar Women's Polytechnic, Solapur, has completed Ph.D. in English by P.A.H. Solapur University on *"Impact of Elizabethan Drama on Sri Aurobindo's Select Plays"* under the guidance of Dr. N. N. Londhe, Head, Deptt. of English, D.B.F. Dayanand College, Solapur.

Dr. B. P. Bhagat, Sr. Lecturer, Comp. Engg., Govt. Polytechnic, Yavatmal, has completed Ph.D. on October 14, 2025, from Sant Gadge Baba Amravati University. Her thesis, titled *"Design and Analysis of AI-Based Teaching–Learning Evaluation Model Using Sentiment Analysis,"* under the guidance of Dr. S. S. Dhande, Sipna, COET, Amravati.

Dr. Bipin Wankhede, Asst. Professor, Mech. Engg. Deptt., G. H. Raisoni College of Engineering & Management, Nagpur, has completed Ph.D. from G. H. Raisoni University, Amravati, in 2025, on *"Development of Cotton Fibre Reinforced Epoxy Composite for Agriculture Application,"* under the guidance of Dr. V. S. Dakre, Professor, Mech. Engg. Deptt., G. H. Raisoni University, Amravati.

Awards

Team ELITE of Mechanical Engg. Deptt., Rajarambapu Institute of Technology, Islampur, has been honoured with the Gold Award at the 40th Annual Chapter Convention on Quality Concepts, organized by the Quality Circle Forum of India (QCFI), Pune, on 20th September 2025. The team received this recognition for their best practice presentation *"Low Success Rate & Experiential Learning among 2nd Year Students."*

Mr. Farde Kishor D., HoD, Deptt. of Automation & Robotics, S. S. Jondhle Polytechnic, Asangaon, has been awarded the DTE Best Green Club Faculty Coordinator Award at COEP, Pune, on 29th October 2025. The ceremony was graced by the Hon'ble H&T Education Minister, Shri Chandrakant Dada Patil, as the Chief Guest.

Dr. Soojey Deshpande, Principal, Vidya Pratishthan Polytechnic College, Indapur, has been honoured with the "Guru Samman 2025" Award by the Maharashtra State Teachers' Association, Pune in Sept. 2025. He fostered an environment in college for value based learning, innovation, ethical leadership and holistic student development.

AI for Inclusive Learning – Turning a Tribal Polytechnic into a Living Lab for Applied Intelligence

Artificial Intelligence (AI) isn't just a buzzword anymore—it's the air every modern profession breathes. Studies indicate that nearly two-thirds of technical roles in the coming decade will require some understanding of AI. While urban learners often gain this exposure naturally, students in tribal and rural regions face significant barriers—limited digital literacy, poor connectivity, and scarce resources. For them, AI feels almost magical.

Government Polytechnic, Vikramgad, located amid the green hills of Palghar district, serves a predominantly tribal student community. Many learners here are first-generation computer users who travel long distances on unreliable public transport to attend classes. Rather than viewing these constraints as limitations, the polytechnic embraced them as an opportunity—asking a transformative question: ***"What if AI could help us turn our constraints into creativity?"*** This question became the foundation for a campus-wide shift—transforming teaching, learning, and administration through applied AI.

1. AI Inside the Classroom - Teaching subjects like *Microprocessor* and *Digital Techniques*, visualizing how data or logic actually moves can be difficult without access to lab setups. To bridge this gap, faculty began integrating **AI-based visualization tools** such as **Runway ML** and **Pika Labs** to create short animations demonstrating logic gate operations and interrupt handling. These AI-generated visuals made abstract concepts come alive—helping students grasp digital logic in ways traditional chalk-and-talk methods could not. One student remarked, *"Sir, this is the first time I could actually see what a microprocessor is doing."* Tools like **Whimsical AI** are also used to instantly generate flowcharts for algorithm design— something that used to take a full whiteboard session - saving time and making the classroom more interactive and visually engaging.

2. Personalized Assignments that Think with Students - To foster active learning, students are encouraged to use AI tools such as **ChatGPT** and **Gemini** for assignments, not as shortcuts, but as study partners. Every AI-generated response must be **modified, tested, and explained** by the student. Examples include: A student who built a **smart irrigation alert system** for her father's farm by refining Gemini's code using real water schedule data. Another student who used AI to translate his technical report into **Marathi** so his parents could understand his work. Even with a **70:1 student–teacher ratio**, this AI-assisted approach enables faculty to reach learners more personally, enhancing engagement.

3. Microprojects and Industrial Training with an AI Lens - During the mandatory **12-week In-Plant Industrial Training**, students are encouraged to find how AI can enhance routine tasks into smarter tasks in their workplaces. Examples included: Using **GitHub Copilot** to document automation projects; Employing **ChatGPT** to create dashboards for analysing production data; Developing micro projects such as: *AI-based soil fertility estimation using weather data, Voice-enabled chatbot for local bus timings and Predicting power cuts for hill-top villages.* The focus isn't to turn every student into an AI developer but to instill the ability to identify where and how AI can add value to real-world problems.

4. Everyday Curiosity Meets AI -The activity **"Find AI in Everyday Life"** has become a student favorite, encourages them to explore in creative ways - how AI can simplify routine challenges. From using ChatGPT to decide which vegetables look fresher at the local market to generating **study reminders in Marathi**, learners discover that AI becomes less of a concept and more of a companion—something that helps them think smarter about everyday problems.

5. AI for Administration and Faculty Development- At Government Polytechnic, Vikramgad, AI integration has also extended beyond the classroom. The **college website** was structured, designed, and drafted using ChatGPT then refined manually. Faculty are exploring AI**-assisted reading of scanned test papers** to identify scoring patterns. An **AI-driven digital fee collection system**, modelled on SBI Collect, is under development to overcome the absence of a nearby bank branch. Teachers now use AI to create **CO–PO mappings**, **bilingual quizzes**, and **microproject ideas** aligned with real-world challenges.

Conclusion - At Government Polytechnic, Vikramgad, **AI hasn't made learning easier—it has made it deeper.** Students now ask sharper questions, experiment with curiosity, and apply technology meaningfully to their environment. Teachers, spend less time formatting notes thus freed from routine tasks, focus more on mentoring and creative instruction. In a region where resources are limited, AI has emerged as a **bridge between curiosity and capability**—proving that innovation can flourish anywhere, even in the red soil of Vikramgad.

Government Polytechnic, Vikramgad, Palghar, Maharashtra

Akshay Janrao Pakhare

In-Charge HoD, Deptt. of Comp. Engg. Govt. Polytecnic Vikramgad

MSBTE Sponsored FDPs on "Internal and Institutional Growth"

Pune Region: Maharashtra State Faculty Development Academy, Pune

The MSBTE, recently organized an impactful Soft Skills Training Programs across its Mumbai, Nashik, and Pune regions for faculty members from institutions state-wide. Titled **"Training Program for Faculty on Internal and Institutional Growth,"** the initiative was conducted from **6th to 10th October 2025**. The sessions were facilitated by **Saitej Life Training Institute, Nashik**, a reputed organization known for delivering life and soft skills programs to government departments across India. In the Nagpur region, the training was conducted on **6th October 2025** at *K.C. Bajaj College of Pharmacy & Research, Jaripatka*; in the Pune region, on **8th October 2025** at the *Maharashtra State Faculty Development Academy*; and in the Mumbai region, on **10th October 2025** at *Vivekanand Education Society's Polytechnic, Chembur*.

MSBTE's Industry Training Programs for Faculty

Festo India Pvt. Ltd., Mumbai

MSBTE organized an *Industrial Training Program* at Festo India Pvt. Ltd., Mumbai for the faculty of Chemical, Electrical, Electronics, Instrumentation, Mechanical, and Production Engineering Deptt. of Polytechnics on "Industrial Pneumatics and Electro-Pneumatic Control" from 15th to 19th September 2025. 19 participants completed the training, strengthening their competence in industrial automation technologies.

Mahindra & Mahindra Ltd., Nagpur

MSBTE organized an *Industrial Training Program* at the Mahindra Excellence Centre, Mahindra & Mahindra Ltd., Nagpur for the faculty of the Mech. Engg. Deptt. of Affiliated Polytechnics on "Complete Overhauling of Tractor Aggregate - CRDe engine, transmission systems, and hydraulic mechanisms" from 6th to 10th October 2025. The program offered comprehensive hands-on exposure to 25 participants.

BOSCH Limited, Pune

MSBTE organized an *Industrial Training Program* at BOSCH Limited, Pune for the faculty of the Mech. Engg. Deptt. of Polytechnics on "Advanced Automotive System" from 6th to 10th October 2025. The program covered topics like Conventional Fuel Injection Systems, Advanced Fuel Injection Systems, Vehicle Diagnostics, Electric Vehicles, Rotary Machines (Starter & Alternator), Batteries. 25 participants completed training.

BSNL ZTTC, Pune

MSBTE organized an *Industrial Training Program* on Data Communication at BSNL ZTTC, Pune for the faculty of the Computer and Electronics Departments of Polytechnics from 27th to 31st October 2025. The program offered industry-oriented insights and practical exposure to 28 participants who successfully completed the training.

Feedback....

The MSBTE Newsletter is an excellent initiative that serves as a dynamic platform to showcase the multifaceted achievements of institutions, faculty, and students under the MSBTE umbrella. The content is thoughtfully curated, reflecting the ongoing academic advancements, innovative practices, and institutional milestones across various polytechnics. The balanced blend of articles, success stories, and event highlights makes the newsletter both informative and inspiring. The visual layout and concise presentation further enhance its readability and overall appeal. Overall, the MSBTE Newsletter stands as a commendable effort that reflects the organization's commitment to excellence, transparency, and continuous improvement. My heartfelt appreciation to the editorial team for their dedication, creative approach, and meticulous efforts in bringing forth such a quality publication. I, hereby offer my best wishes to all students for winter 2025 examinations

Prof. Sanjay Kulkurni, Rtd. Principal, Shri Tirupati Tantra Niketan, Akola

I would like to express my gratitude to the entire MSBTE team for publishing such a vibrant and informative newsletter. Each edition is a collection of achievements, technological advancements and creative initiatives coming from polytechnic institutes across the state. By highlighting real student projects, faculty accomplishments and collaborative events, the newsletter brings our diverse academic community closer together. As a regular reader, I find it truly inspiring to see the range of topics from emerging technology trends to practical skill-building activities covered in each issue. The stories and insights shared motivate both students and faculty members to strive for excellence, foster a culture of innovation and engage deeply with their disciplines.

The clear layout and well-curated articles make it easy to stay updated and I often share sections of the newsletter with my colleagues and students to spark discussion or introduce new ideas. I sincerely hope the efforts behind this newsletter continue to grow, strengthening the bond between institutes and nurturing the next generation of engineers and innovators. Kudos to the editorial team for their dedication and vision.

Mr. Kiran S. Kedare, Lecturer, Guru Gobind Singh polytechnic, Nashik

The July 2025 MSBTE Newsletter is a vibrant tapestry of academic life, brilliantly weaving institutional achievements with insightful articles. Its professional design and compelling content showcase a culture of excellence and innovation. To elevate this already stellar issue, consider adding brief author biographies to personalize contributions and include concise captions for the powerful visuals. These subtle refinements in formatting will enhance clarity and reader connection, solidifying the newsletter as a premier chronicle of your institution's dynamic spirit and a must-read for the entire community.

Mr. Swapnil D. Gaikwad, Lecturer, Mech. Engg., RIT, Diploma Sangli

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