GOVERNMENT ENGINEERING COLLEGE, MODASA

Newsletter

July – December 2024

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gec-modasa-dte@gujarat.gov.in | (+91)02774 242 633/634

http://www.gecmodasa.ac.in

GECM E-NEWS

FROM THE PRINCIPAL'S DESK

Government Engineering College (GEC), Modasa, proudly celebrates its 40th anniversary (1984–2024), reflecting on its remarkable journey from inception to becoming a state-of-the-art institute in the tribal region of the Aravalli district. Over the years, the college has not only established itself as a center of academic excellence but has also made a global impact through its alumni, who contribute significantly across various fields of engineering.

GEC Modasa emphasizes the holistic development of its students, providing opportunities for academic enrichment, expert lectures, Industrial Visits, and robust placement drives. The institute actively supports the Startup policy and fosters an entrepreneurial ecosystem by promoting innovation programs.

One of the significant achievement this year for the institute is that it has received ₹3.86 crore grant from KCG Ahmedabad to establish a Centre of Excellence in the Computer and IT Department for "Cyber Physical Systems" Also 317 computer system with latest configuration have been distributed among the department to avail updated computer laboratory. This accomplishment underscores its commitment to advancing technology and research.

Faculty and students have also been active participants in initiatives under the "Aatma Nirbhar Bharat" campaign, collaborating with GTU and the Education Department to drive innovation and development. Beyond academics, GEC Modasa encourages students to engage in extracurricular activities, including sports, cultural events, tree plantation drives, and cleanliness campaigns, road and traffic safety programme, and nurturing awareness of critical environmental issues such as sustainability and climate change.

Aligning with the vision of "One Earth, One Family, One Future," the institute emphasizes harmony, inclusive growth, sustainability, and digital transformation. It is also deeply committed to implementing the National Education Policy (NEP 2020), which advocates flexibility, multidisciplinary education, and vernacular learning to revolutionize India's education system. With a sprawling, green campus equipped with modern facilities and in-campus hostels, GEC Modasa provides an excellent ecosystem for teaching, learning, and all-round development of students. Through its focus on innovation, sustainability, and quality education, the college continues to play a vital role in contributing to national goals and addressing global priorities for a better future.

Principal (I/C)

Prof. Dr. Jeetendra A. Vadher

COLLEGE SAGA

Internal Hackathon for SIH 2024

GEC Modasa successfully hosted the Internal Hackathon for Smart India Hackathon (SIH) 2024 on September 18, 2024. The event provided students with a platform to showcase their problem-solving skills, creativity, and innovative thinking. Participants engaged in developing cutting-edge solutions to real-world challenges, preparing them for the national-level competition.

कलाब्धि: The Art Fest for Girl Students

On 12th September 2024, the Women Development Cell (WDC) of GEC Modasa, in association with RUSA, organized कलाब्धि: The Art Fest, an exclusive event designed to celebrate and encourage the artistic talents of girl students.

The fest featured a range of creative competitions, including:

- Painting Competition
- Drama
- WDC Logo Design Competition
- Mehendi Competition

The event was successfully coordinated by R.J. Prajapati, Prof. M.V. Chauhan, Prof. P.A. Bhura, Prof. M.K. Rathva, and Prof. N.S. Chawdhary, providing a vibrant platform for students to express their creativity and artistic passion.

Workshop on Blockchain Technology: Fundamentals to Practical Implementation

On October 1, 2024, Prof. P. S. Modi and Prof. A. A. Prajapati in collaboration with Lampros Tech Labs Pvt. Ltd., Ahmedabad, successfully conducted a workshop on "Blockchain Technology: Fundamentals to Practical Implementation."

With the participation of approximately 100 students, the workshop provided an in-depth understanding of blockchain concepts, applications, and real-world implementation. The sessions aimed to bridge the gap between theoretical knowledge and industry practices,

equipping students with essential skills in this transformative technology.

Online Workshop on Introduction to Data Analytics & AI

On October 22, 2024, Prof. P. S. Modi and Prof. A. A. Prajapati organized an online workshop titled "Introduction to Data Analytics & AI" in collaboration with the Adani Institute of Digital Technology Management. Serving as Session Chairs, they guided the event, which was attended by 35 students.

The workshop provided participants with foundational knowledge of data analytics and artificial intelligence, highlighting their practical applications and significance in the digital era. The session aimed to equip students with essential insights into these transformative technologies, preparing them for future advancements in the field.

Honoring Dr. B. J. Shah: A Memorable Farewell

On December 2, 2024, Institute bid a heartfelt farewell to Dr. B. J. Shah, who dedicated 10 years to the institution, including five impactful years as the regular principal from May 31, 2019, to December 2, 2024. The event was a tribute to his leadership, contributions, and unwavering commitment to academic excellence. Faculty, and staff gathered to express their gratitude and wish him success in his future endeavors.

COLLEGE SAGA

Welcoming Dr. J. A. Vadher as In-Charge Principal

On December 3, 2024, Institute warmly welcomed Dr. J. A. Vadher as the new In-Charge Principal. With a strong academic background and leadership experience, Dr. Vadher is set to guide the institution toward continued excellence.

SSIP CELL

Awareness Seminar on Student Startup & Innovation Policy (SSIP) at Chanakya Vishv Vidhyalay, Modasa

The Government of Gujarat's Student Startup & Innovation Policy (SSIP) aims to foster a state-wide university-based innovation ecosystem that supports young students in transforming their ideas into innovations. This initiative provides a nurturing environment to enhance students' creative potential and technical skills.

In alignment with this vision, Government Engineering College, Modasa, has taken a proactive step by establishing an SSIP Cell to promote student-driven innovation. As part of this initiative, an awareness seminar was organized on August 13, 2024, at Chanakya Vishv Vidhyalay, Modasa, specifically for 9th Standard students.

The seminar was conducted by Prof. P. M. Mistri, and Prof. A. J. Patel. The session featured an insightful presentation on SSIP 2.0, emphasizing the financial support available and the significance of Intellectual Property Rights within the program.

The event concluded with an interactive question-and-answer session, where students actively participated, seeking clarity on various aspects of the policy. This seminar successfully raised awareness about SSIP, inspiring young minds to explore innovation and entrepreneurship opportunities.

Gymkhana

Tree Plantation and Campus Cleaning Drive

The NSS and Gymkhana team of GEC Modasa organized a successful tree plantation and cleaning drive on October 5, 2024. The initiative aimed to enhance environmental awareness, contribute to campus greenery, and promote a clean and sustainable environment. The enthusiastic participation of students and faculty members made the event impactful, reinforcing the institution's commitment to environmental responsibility.

Independence Day Celebration

GEC Modasa proudly celebrated India's 78th Independence Day with great enthusiasm and patriotic spirit. The event brought together students, faculty, and staff in a vibrant display of unity and national pride. Meticulously planned, the program featured a series of activities that paid tribute to the nation's rich history and independence.

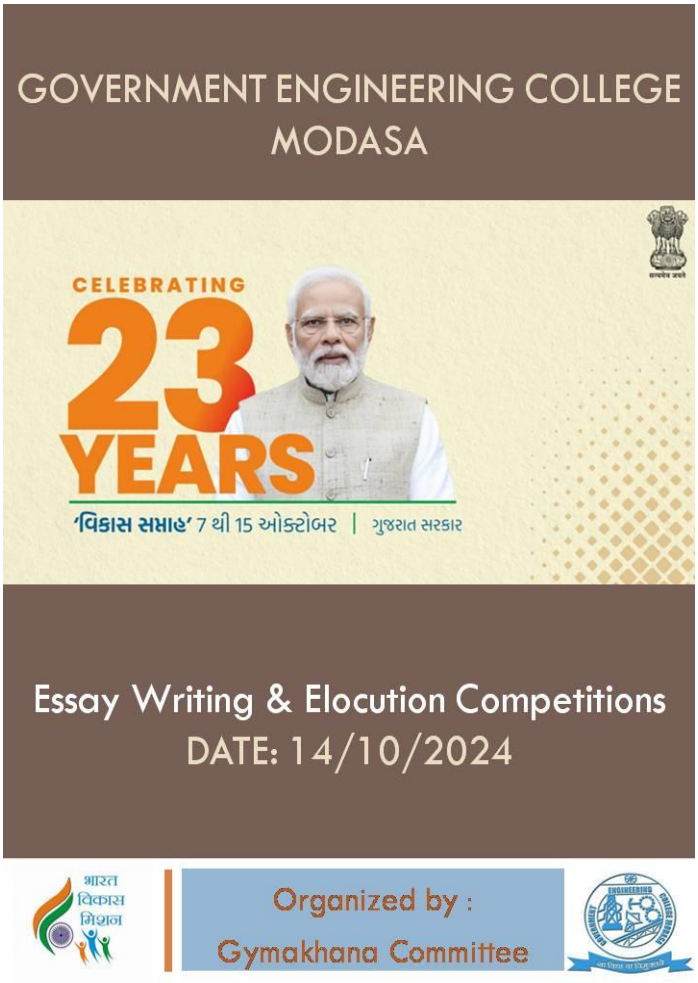
Viksit Bharat Pledge at GEC Modasa

Students and staff of GEC Modasa actively participated in the Viksit Bharat pledge campaign on October 8, 2024, reaffirming their commitment to nation-building and a progressive future. The pledge symbolized collective dedication towards the development and prosperity of the country.

COLLEGE SAGA

Elocution, Essay Writing, and Quiz Competition

As part of the Vikas Saptah celebrations marking 23 years of progress, the NSS and Gymkhana team organized an Elocution, Essay Writing, and Quiz Competition on October 14, 2024. The event provided a platform for students to showcase their knowledge, creativity, and public speaking skills while fostering a spirit of learning and intellectual engagement.



NSS Awareness and Student Volunteer Selection Program

The NSS Unit organized an Awareness and Student Volunteer Selection Program on September 6, 2024, to introduce students to the vision, activities, and opportunities of the National Service Scheme (NSS). The event aimed to inspire students to engage in social welfare initiatives and actively participate in community development projects. By fostering a spirit of service and responsibility, the program successfully motivated students to join NSS and contribute to meaningful societal change.

COLLEGE SAGA

"Viksit Bharat Quiz" at GEC Modasa

The Viksit Bharat Quiz, organized as part of the Viksit Bharat Young Leaders Dialogue, was an intellectually engaging event. This initiative, a transformative extension of the National Youth Festival (NYF) 2025, reflects the Prime Minister's vision of empowering youth to contribute to India's development.

The quiz aimed to foster active participation among students in shaping a Viksit Bharat by enhancing their knowledge of India's growth journey, government initiatives, and their role in nation-building. The event successfully inspired young leaders to engage with the nation's progress and take responsibility for its future.

Cleanliness Drive

In September 2024, GEC Modasa organized a Cleanliness Drive to promote hygiene, environmental awareness, and a cleaner campus. Students and faculty actively participated in the initiative, reinforcing the importance of maintaining a sustainable and healthy environment.

Tiranga Yatra Rally

The NSS and Gymkhana team of GEC Modasa, in collaboration with Modasa Jilla Sadan, organized a Tiranga Yatra on August 12, 2024. The rally witnessed enthusiastic participation from a large number of students, both boys and girls, showcasing their patriotism and unity while honoring the spirit of independence.

COLLEGE SAGA

Hostel

Janmashtami Celebration

On September 1, 2024, Janmashtami was joyfully celebrated at the hostel. The event featured a traditional Aarti, followed by the thrilling Matki Phod celebration, bringing students together in a festive spirit. The celebration aimed to foster unity among students, strengthening bonds through cultural and spiritual engagement

Ganesh Chaturthi Celebration

Ganesh Chaturthi was celebrated with great devotion at hostel from September 1 to September 7, 2024. Lord Ganesha was installed for seven days, during which students actively participated in daily prayers, Aarti, and cultural activities. The celebration created a sense of unity and spiritual harmony among the students, fostering a vibrant and inclusive atmosphere.

Hostel Cup 2024: A Spirit of Sportsmanship and Unity

The Hostel Cup 2024 was successfully organized at the Institute campus on December 20, 2024, bringing students together through the excitement of sports. The tournament featured Cricket, Volleyball, and Badminton, with 16 teams competing in cricket, 8 teams in volleyball, and over 40 participants in badminton. The event fostered teamwork, sportsmanship, and unity among students, creating an energetic and competitive atmosphere

DEPARTMENT SPOTLIGHT

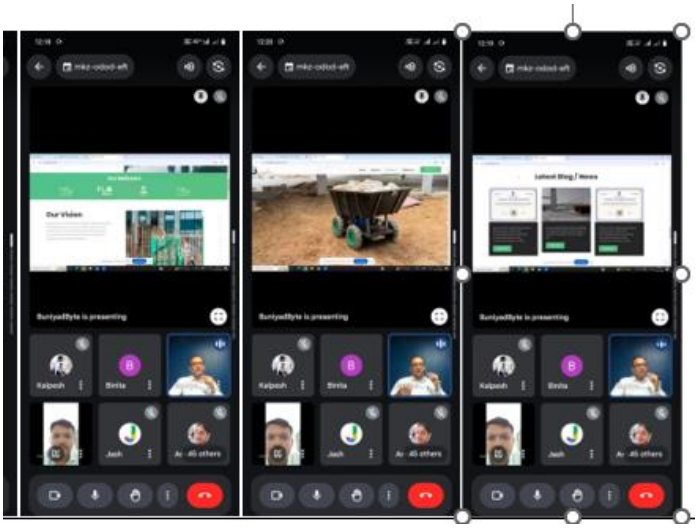
Applied Mechanics & Civil Engineering Department

Expert Lecture on "Construction Tech Startup: Get Ready for the Future"

As part of the 23rd-year celebrations of Vikas Saptah, department has successfully organized an expert lecture on October 9, 2024. The session featured Mr. Himanshu Bhavsar, Director of BuniyadByte, a leading startup in construction technology.

Conducted online, the lecture attracted the enthusiastic participation of 100 civil engineering students. Mr. Bhavsar provided valuable insights into the evolving landscape of construction technology and startups, inspiring students to explore opportunities in this growing field.

The session concluded with an interactive Q&A, where students engaged in discussions on startup strategies, government support, and the role of civil engineers in tech-driven construction innovations. Mr. Bhavsar encouraged students to embrace innovation and adaptability, key drivers of success in the industry.



"PAPER TO SITE" – Bridging Theory and Practice in Civil Engineering

The department organized a hands-on learning event, "PAPER TO SITE," on September 13, 2024. Conceptualized and led by Dr. A.J. Patel, the event aimed to bridge the gap between theoretical knowledge and real-world application in civil engineering.

The primary objective was to help students transform a 2D printed plan of a 2BHK house into a ground line diagram, providing them with practical experience in site layout planning and visualization—an essential skill for future civil engineers.

DEPARTMENT SPOTLIGHT

Visit to Pre-Engineered Building (PEB)

An insightful pedagogy session on "Construction and Manufacturing of Pre-Engineered Building (PEB) Structures" was conducted by Prof. A. J. Patel for the students on August 7, 2024. The session aimed to introduce students to the concept, design, and application of PEB structures in modern construction.

Prof. Patel provided a comprehensive explanation of PEB systems, emphasizing their growing significance in the civil engineering industry. By integrating real-life applications, he helped students gain a deeper understanding of how PEB structures enhance efficiency and sustainability in construction.

Pedagogy Session on Multi-Storey Building Design Using ETABS and RCDC

A specialized pedagogy session on "Design of Multi-Storey Building Using ETABS and RCDC & Detailing" was conducted on August 8, 2024. The session aimed to equip students with essential skills in structural engineering by demonstrating the use of modern software tools like ETABS and RCDC for design and detailing.

Prof. A. J. Patel effectively highlighted the significance of these tools in streamlining the design process, ensuring precision, and enhancing workflow efficiency in structural engineering. Through hands-on demonstrations and interactive discussions, students gained valuable practical insights into the real-world applications of these technologies.

Electrical Engineering Department

Industrial Visit to 66 kV Modasa Substation

On October 5, 2024, 20 final-year students visited the 66 kV Modasa substation, accompanied by Prof. D.U. Thakar. The visit aimed to know how about power transmission and distribution systems.

DEPARTMENT SPOTLIGHT

During the visit, students gained valuable insights into key substation components, including transformer maintenance, circuit breakers, isolators, bus bars, protective relays, lightning arresters, load break switches, SCADA systems, and battery rooms.

This industrial visit significantly enhanced students' understanding of real-world electrical power systems, bridging the gap between theoretical knowledge and practical application in the field of electrical engineering.

Industrial Visit to Elcon LV Switchgear

On October 5, 2024, a group of 17 enthusiastic students embarked on an industrial visit to Elcon LV Switchgear, accompanied by esteemed faculty members Dr. (Prof.) V.J. Upadhyay, Dr. N.V. Upadhyay, Dr. K.K. Bhatt, and Dr. H.S. Pandya.

The visit provided an in-depth understanding of LV switchgear systems, covering various types, manufacturing techniques, quality control measures, rigorous testing procedures, and certification processes. Students also explored emerging industry trends, career prospects, energy efficiency innovations, and advancements in smart grid technology.

Industrial Visit to PC Industries Pvt. Ltd.

In October 2024, a group of 17 students, accompanied by faculty members Prof. V. J. Upadhyay, Prof. N.V. Upadhyay, Prof. K.K. Bhatt, and Prof. H. S. Pandya, visited PC Industries Pvt. Ltd.

The visit aimed to provide hands-on exposure to the manufacturing processes of HRS fuses, isolating switches, and insulators. Students had the opportunity to interact with industry professionals, gaining valuable insights into production techniques, quality assurance, and real-world applications of electrical engineering concepts.

Industrial Visit to Prima Automation Ltd.

In October 2024, a group of 17 students, under the mentorship of Prof. V. J. Upadhyay, Prof. N. V. Upadhyay, Prof. K. K. Bhatt, and Prof. H. S. Pandya, visited Prima Automation Ltd. as part of an academia-industry collaboration.

DEPARTMENT SPOTLIGHT

The visit provided an in-depth exploration of industrial automation ecosystems, covering key technologies such as PLCs, SCADA, HMIs, and industrial robotics. Students had the opportunity to engage with industry experts, gaining valuable insights into process automation, control system optimization, and emerging technological advancements.

Industrial Visit to Yogi Cab Ltd.

On October 4, 2024, a cohort of 17 students, under the guidance of Prof. V. J. Upadhyay, Prof. N. V. Upadhyay, Prof. K. K. Bhatt, and Prof. H. S. Pandya, participated in an industrial visit to Yogi Cab Ltd. as part of an industry-integrated learning initiative.

The visit provided students with firsthand exposure to advanced cable manufacturing processes, covering flat, round, solar, and custom cables. Engaging with industry specialists, students gained valuable insights into production workflows, material engineering, and stringent quality control protocols.

Industrial Visit to Amtech Electronics India Ltd.

On October 9, 2024, a group of 10 students, accompanied by Prof. M. J. Patel and Prof. J. B. Pujara, visited Amtech Electronics India Ltd., Gandhinagar, as part of an initiative to bridge the gap between theoretical knowledge and industrial applications.

The visit provided students with hands-on exposure to cutting-edge automation technologies, including Variable Frequency Drives (VFDs), AC regenerative drives, and power quality solutions. Through direct interaction with industry experts, students gained valuable insights into modern energy-efficient systems and their critical role in industrial motor control applications.

Industrial Visit to State Load Despatch Centre (SLDC), Gandhinagar

On October 1, 2024, a group of 18 students, accompanied by two faculty members, visited the State Load Despatch Centre (SLDC), Gandhinagar, to gain practical insights into power system operations and grid management.

During the visit, students explored grid management techniques, load forecasting strategies, and advanced energy transmission technologies, deepening their understanding of modern power system operations.

Strategic Industry MoUs Signed by GEC Modasa

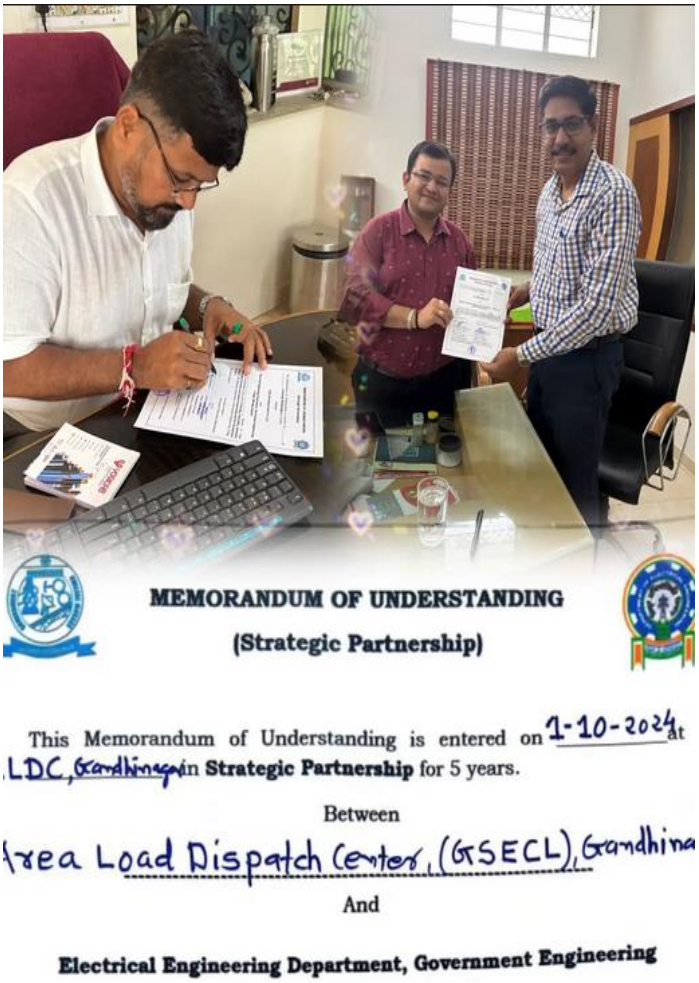
GEC Modasa has strengthened its industry-academia collaboration by signing multiple Memorandums of Understanding (MoUs) with leading companies. These partnerships aim to enhance students' practical learning, research opportunities, and industrial exposure.

The MoUs were facilitated by Prof. V. J. Upadhyay, Prof. M.J. Patel, Prof. J.B. Pujara, Prof. D. U. Thakar,

and Prof. H.S. Pandya, establishing strategic alliances with the following industries:

- PCI Industries
- Elcon Engineering
- Yogi Cab Ltd.
- Prima Automation Ltd.
- Technoplast, Mumbai

These collaborations will provide students with hands-on training, internships, industry-driven projects, and expert mentorship, bridging the gap between academic knowledge and real-world applications.



MEMORANDUM OF UNDERSTANDING

(Strategic Partnership)

This Memorandum of Understanding is entered on 1-10-2024 at LDC, Gandhinagar in **Strategic Partnership** for 5 years.

Between

Area Load Dispatch Center, (GSECL), Gandhina

And

Electrical Engineering Department, Government Engineering

Computer Engineering & Information Technology Department

"Unlocking C: The Master Class" – A Hands-on Programming Workshop

The Technopreneur Club successfully conducted a three-day workshop, "Unlocking C: The Master Class," from 5th to 7th August 2024. The workshop was designed to strengthen the fundamental and advanced concepts of C programming for second-year Computer and IT students.

With a blend of theoretical discussions and practical sessions, the workshop provided an interactive learning experience under the guidance of expert mentors. The event effectively enhanced students' programming skills, equipping them with a strong foundation in C programming.

Teacher's Day Celebration

On 5th September 2024, CE/IT department celebrated Teacher's Day with enthusiasm and gratitude. Organized by faculty coordinator Prof. R.N. Vaza, the event featured a series of engaging

activities, including: Teaching Sessions – Students took on the role of teachers. Elocution Competition – Expressing thoughts on education and mentorship. Adjective Representation – Creative ways to describe and appreciate teachers.

The celebration also included speeches, musical performances, and a comedy act by professors, adding a lively touch to the event. Faculty juries judged the competitions, and students expressed heartfelt appreciation for their mentors. The event strengthened the bond between students and teachers, fostering an atmosphere of mutual respect and learning.

Prarambh 2K24: A Grand Welcome and Celebration

On 19th September 2024, CE/IT department hosted Prarambh 2K24, a vibrant event held at the LRC Block from 11:30 am to 5:00 pm. It was organized by faculty coordinator Prof. R.N. Vaza. The event brought together 30 enthusiastic participants (20 boys and 10 girls) for a day of celebration and interaction.

The event successfully blended cultural expression, technical exposure, and student engagement, creating an unforgettable experience while appreciating past and present leaders in engineering and innovation.

Rangtaali 2K24: A Grand Navratri Celebration

On 21st October 2024, Rangtaali 2K24, a spectacular Navratri celebration was held at the CE/IT department from 3:00 to 5:30 pm. The event was coordinated by Prof. R.N. Vaza and 450 enthusiastic students participated and enjoyed.

Rangtaali 2K24 was a mixture of culture, tradition, and festivity, making it a memorable event for all while fostering a sense of unity and cultural appreciation.

DEPARTMENT SPOTLIGHT

Techno Fun Fair 2K24: A Fusion of Technology & Entertainment

The Techno Fun Fair 2K24, organized by the Technopreneur Club, was held online for 4 days on 24th, 25th, 27th, and 28th December 2024. The event witnessed enthusiastic participation from 280 students (210 boys and 70 girls) and was coordinated by Prof. R.N. Vaza, along with faculty and student leaders.

Mechanical & Automobile Engineering Department

Webinar on Studying Abroad: Expanding Global Opportunities

On September 5, 2024, the department organized an informative webinar on ‘Abroad Study.’ The event was coordinated by Prof. P. M. Mistri, Prof. M. G. Patel, and Prof. H. I. Chaudhari under the guidance of Prof. J. A. Vadher and Prof. U. V. Shah, H.O.D. of the department. More than 100 students actively participated in the session, which was delivered by Mr. Srinivas from Uniabroad, Bengaluru. The webinar provided valuable insights into international education opportunities, admission procedures, scholarships, and career prospects, helping students explore global academic pathways.

Webinar on Indian Constitution: Understanding Our Fundamental Rights

On September 5, 2024, the department organized an insightful webinar on ‘Indian Constitution.’ The event was coordinated by Prof. P. M. Mistri, Prof. M. G. Patel, and Prof. H. I. Chaudhari under the guidance of Prof. J. A. Vadher and Prof. U. V. Shah, H.O.D. of the department. More than 100 students actively participated in the session, which was delivered by Dr. Harsshad Raval, Assistant Professor at Mahamandleshwar Shri Krishnandji Law College, Bharuch. The webinar provided important insights into the principles, rights, and duties outlined in the Indian Constitution, enhancing students' understanding of its significance in daily life and governance.

DEPARTMENT SPOTLIGHT

"India has long been an exporter of talent to tech tech companies... But it is India that's now undergoing its own revolution."

Sundar Pichai,

CEO of Google

RESEARCH AND OUTREACH

Applied Mechanics & Civil Engineering Department

Prof. B. R. Shah has published a research paper on “Anaerobic Biodegradation of Real Pharmaceutical-Grade Lactose Manufacturing Wastewater in a Modified Internal Circulation Reactor” in Desalination and Water Treatment (ISSN: 1944-3986), Volume 320, on October 21, 2024.

Prof. A. J. Patel delivered an expert talk on "Concrete Mix Design as per the Latest Code" at Silver Oak University on 9th September 2024.

Electrical Engineering Department

Prof. Kaushal K. Bhatt has published a research paper titled “A Novel Concept of Extreme Fine Tuning in Harmonic Profile Improvement in Multilevel Inverter for Electrical Drives” in the International Journal of Power Electronics, Volume 18, Issue 2, Pages 139-162.

Electronics & Communication Department

Prof. Bhavik Brahmbhatt, Prof. Priyank Patel, Prof. Nitin Bathani, Prof. Ketu Patel, Prof. Nirav Patel, and Prof. Sameer Mansuri have published a research paper titled “Implementation of Reconfigurable Modified Advanced Encryption Algorithm with Area Optimization” in the International Journal of Intelligent Systems and Applications in Engineering (IJISAE) (ISSN: 2147-67992), Volume 12, Issue 21s, Pages 2824-2832.

Prof. Bhavik Brahmbhatt has published a research paper titled “Metaheuristic Optimization Algorithms Comparison Adopted for the Profit Maximization of Electricity Market Participants” in the Journal of Electrical Systems (ISSN: 1112-5209), Volume 20, Issue 6s, Pages 1032-1042.

Prof. Bhavik Brahmbhatt has also published a research paper titled “Indirect Field Oriented Control of Induction Motor” in the Journal of Electrical Systems, Volume 20, Issue 3s, Pages 2013-2021.

Computer Engineering & Information Technology Department

Prof. Prashant S. Modi has published a research paper titled “A Review on Video to Text Summarization Techniques” in the Journal of Electrical Systems (JES) (ISSN: 1112-5209), Volume 23, Vol. 20 No. 3, Pages 3413-3435, published on July 5, 2024.

Prof. S. A. Vahora and Prof. N. N. Maltare have published a research paper titled “A Hybrid Approach for Mathematical Representation of Parallel Design” in the 5th International Conference for Emerging Technology (INCET), 2024, DOI: 10.1109/INCET61516.2024.10593452, published in July 2024.

Prof. A. K. Dodiya, Prof. P. R. Gamit, Prof. S. G. Patel, and Prof. A. D. Chaudhari have published a research paper titled “Advanced Machine Learning Techniques for Precise Thyroid Disease Classification: A Novel Approach” in the Journal of Electrical Systems (JES) (ISSN: 1112-5209), Volume 20, Vol. 20 No. 6s (2024), Pages 1075-1088, published in June 2024.

RESEARCH AND OUTREACH

Prof. N. N. Maltare has published a research paper titled “A High-Capacity Coverless Image Steganography Based on OMR and Mapping Rules” in the Journal of Electrical Systems (JES) (ISSN: 1112-5209), Volume 20, Vol. 20 No. 3s (2024), Pages 1999-2006.

Prof. V. A. Rathod, along with Prof. R. J. Prajapati, Prof. A. A. Prajapati, and Prof. M. K. Rathva, has published a research paper titled “Strategies for Monitoring the Cloud for Distributed Denial of Service Attacks” in the International Journal of Intelligent Systems and Applications in Engineering (ISSN: 2147-6799), Volume 21, Vol. 21s (2024), Pages 3581-3587, published on March 26, 2024.

Prof. V. A. Rathod and Prof. A. A. Prajapati have published a research paper titled “Optimal Solution for Pest Controlling and Precision Agricultural System Using IIoT” in the Journal of Electrical Systems (JES) (ISSN: 1112-5209), Volume 20, Vol. 20 No. 10s (2024), Pages 1325-1333, published in July 2024.

Prof. N. D. Goriya, Prof. V. R. Patel, Prof. N. V. Nagekar, and Prof. U. R. Bhoi have published a research paper titled “A Comprehensive Approach for Connecting LTE Networks to IoT Devices” in the Intelligent Systems and Applications in Engineering (ISSN: 2147-6799), Volume 12, Vol. 12 No. 22s (2024), Pages 1302-1307, published on June 20, 2024.

Prof. R. J. Prajapati has published a research paper titled “A Systematic Review: Cluster-Based k-Anonymization Approaches for Big Data Privacy” in the Journal of Electrical Systems (JES) (ISSN: 1112-5209), Volume 20, Vol. 20 No. 10s (2024), Pages 2166-2186, published on July 10, 2024.

Prof. N. D. Goriya, Prof. V. R. Patel, Prof. N. V. Nagekar, and Prof. U. R. Bhoi have published a research paper titled “Analysis of Blockchain Protocol Using Machine Learning for Lightweight Cryptography” in the Intelligent Systems and Applications in Engineering (ISSN: 2147-6799), Volume 12, Vol. 12 No. 22s (2024), Pages 540-546, published on June 25, 2024.

Prof. R. J. Prajapati has published a research paper titled “Deep Learning-Based Improved Strategy for Credit Card Fraud Detection Using Linear Regression” in the Journal of Electrical Systems (JES) (ISSN: 1112-5209), Volume 20, Vol. 20 No. 10s (2024), Pages 1295-1301, published in July 2024.

Prof. Mahesh Goyani has published a research paper titled “Robust Face Recognition in the Presence of Diverse Challenges - A Hybrid Deep Neural Network Approach” in the International Journal of Engineering Research and Applications (ISSN: 2248-9622), Volume 14, Issue 10, Pages 55-62, published on October 15, 2024.

Prof. Mahesh Goyani has also published a research paper titled “Multi-Label Remote Sensing Scene Classification Using Two-Level Double Channel Spatial Attention Residual Blocks” in the Journal of Applied Remote Sensing (ISSN: 1931-3195), Volume 18, Issue 3, Pages 0365111-03651126, published on September 27, 2024.

Prof. S. A. Vahora delivered an expert session (webinar) on "Deep Learning Fundamentals: Applications and Innovations" on 21st August 2024, organized by the School of Computer Science Application and Technology (SCAT), Galgotias University (GU), Noida.

Prof. H. R. Patel delivered an expert talk on "ICT Tools for Effective Teaching and Learning in Technical Education" on 29th June 2024 during an Online Faculty Development Program (FDP)

organized by A.Y. Dadabhai Technical Institute (Polytechnic).

Prof. N. N. Maltare delivered an expert session (webinar) on "IIoT Analytics" on 28th August 2024, organized by the School of Computer Science Application and Technology (SCAT), Galgotias University (GU), Noida.

Prof. N. N. Maltare also delivered an expert talk in an Online FDP on "Industrial Internet of Things (IIoT)" organized by Geetanjali Institute of Technical Studies, Dabok, Udaipur, from 3rd-7th May 2024.

Prof. M. M. Goyani delivered an expert session on "Artificial Intelligence and Machine Learning" at Tapi Diploma Engineering College, Surat, on 17th August 2024.

Prof. M. M. Goyani also delivered an Expert Talk on "Digital Content Creation" in a One-Day FDP on "Teach to Transform: Advancing Pedagogical Practices for Faculty of Technical Education" at BVM Engineering College, V. V. Nagar, on 25th June 2024.

"The Internet of Things is not a concept; it is a network, the true technology-enabled network of all networks."

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PARTICIPATION

Applied Mechanics & Civil Engineering Department

Name	Training/Program	Organization	Duration
Prof. A. J. Patel	Industrial Training -1	ARCEDGES INDIA LLP	July 1, 2024 – July 13, 2024
Prof. A. J. Patel	Industrial Training -2	RJP Infrastructure Pvt. Ltd.	July 22, 2024 – August 3, 2024
Prof. V. R. Gor	Industrial Training	Kalpataru Projects International Ltd.	July 22, 2024 – August 2, 2024
Prof. M. M. Bhunga	Industrial Training -1	Kalpataru Projects International Ltd.	July 15, 2024 – July 26, 2024
Prof. U. K. Khare	Management Development Program on "Nurturing Future Leadership Program"	IIM (Under MMTTP, Ministry of Education, Government of India)	November 25, 2024 – November 29, 2024
Prof. B. A. Vyas	Inauguration of One-Week Training on Implementation of NEP	Vidhya Samiksha Kendra, Gandhinagar	October 14, 2024
Prof. B. A. Vyas	One-Day Workshop on "Implementation of NEP 2020 in Technical Education"	EdTech Society	October 23, 2024
Prof. B. A. Vyas	Two-Day Training on "Digital Empowerment and Cyber Safety"	KCG	December 9, 2024 – December 10, 2025
Prof. S. S. Singh	Seminar on "Intellectual Property Rights: The Foundation for Strategic Nation Building"	IPFC, GIC, DPIIT-SPRIHA IPR Chair, and RDC Cell, GTU	November 19, 2024

Electronics & Communication Department

Name	Training/Program	Organization	Duration
Prof. S. H. Mansuri	Industrial Training on Electronics Design – Microwave, RF, and Laser Systems	Sahajanand Laser Technologies Limited, Gandhinagar	July 1, 2024 – July 13, 2024

PARTICIPATION

Name	Training/Program	Organization	Duration
Prof. S. H. Mansuri	Hands-on Industrial Training on Manufacturing, Fabrication, and Design Optimization of Solar Panels	Australian Premium Solar, Tajpur	August 5, 2024 – August 17, 2024
Prof. B. A. Brahmbhatt	Hands-on Industrial Training on Manufacturing, Fabrication, and Design Optimization of Solar Panels	Australian Premium Solar, Tajpur	August 5, 2024 – August 17, 2024
Prof. P. V. Patel	Hands-on Industrial Training on Manufacturing, Fabrication, and Design Optimization of Solar Panels	Australian Premium Solar, Tajpur	August 5, 2024 – August 17, 2024
Prof. S. H. Mansuri	Workshop on Antenna Measurement Techniques	Birla Vishvakarma Mahavidyalaya (BVM), Anand	December 21, 2024
Prof. K. R. Patel	Training Program on Advances in VLSI System Design	e-Infochips, An Arrow Company, Ahmedabad	July 1, 2024 – July 14, 2024
Prof. K. R. Patel	Training Program on Latest Advancement in DTH TV-based Satellite Communication Systems and Educational AV Content Development	BISAG-N, Gandhinagar	July 15, 2024 – July 27, 2024
Prof. N. D. Patel	Training Program on Advances in VLSI System Design	e-Infochips, An Arrow Company, Ahmedabad	July 1, 2024 – July 14, 2024
Prof. N. D. Patel	Training Program on Latest Advancement in DTH TV-based Satellite Communication Systems and Educational AV Content Development	BISAG-N, Gandhinagar	July 15, 2024 – July 27, 2024
Prof. B. A. Brahmbhatt	Training Program on SCADA-based Communication in Transmission Lines	Om Power Transmission Ltd.	July 1, 2024 – July 14, 2024
Prof. P. V. Patel	Training Program on SCADA-based Communication in Transmission Lines	Om Power Transmission Ltd.	August 1, 2024 – July 14, 2025
Prof. S. Rana	Training Program on Advances in VLSI System Design	e-Infochips, An Arrow Company, Ahmedabad	July 1, 2024 – July 14, 2024
Prof. S. Rana	Training Program on Latest Advancement in DTH TV-based Satellite Communication Systems	BISAG-N, Gandhinagar	July 15, 2024 – July 27, 2024

PARTICIPATION

Name	Training/Program	Organization	Duration
	and Educational AV Content Development		

Electrical Engineering Department

Name	Training/Program	Organization	Duration
Prof. T. A. Chaudhari	Industrial Training	Trom industries	June 24, 2024 – July 6, 2024
Prof. C. K. Bariya	Industrial Training	Trom industries	June 24, 2025 – July 6, 2024

Computer Engineering & Information Technology Department

Name	Training/Program	Organization	Duration
Prof. S. A. Vahora	Two-week Industrial Training (Software Development)	TatvaSoft, Ahmedabad	June 24, 2024 – July 6, 2024
Prof. S. A. Vahora	Industrial Training (Information Technologies and Project Management)	Silver Touch Technologies Limited, Ahmedabad	July 15, 2024 – July 26, 2024
Prof. A. K. Dodiya	Two-week Industrial Training (Software Development)	TatvaSoft, Ahmedabad	June 24, 2024 – July 6, 2024
Prof. A. K. Dodiya	Industrial Training (Information Technologies and Project Management)	Silver Touch Technologies Limited, Ahmedabad	July 15, 2024 – July 26, 2024
Prof. P. R. Gamit	Two-week Industrial Training (Software Development)	TatvaSoft, Ahmedabad	June 24, 2024 – July 6, 2024
Prof. P. R. Gamit	Industrial Training (Information Technologies and Project Management)	Silver Touch Technologies Limited, Ahmedabad	July 15, 2024 – July 26, 2024
Prof. S. A. Chauhan	Two-week Industrial Training (Software Development)	TatvaSoft, Ahmedabad	June 24, 2024 – July 6, 2024
Prof. S. A. Chauhan	Industrial Training (Information Technologies and Project Management)	Silver Touch Technologies Limited, Ahmedabad	July 15, 2024 – July 26, 2024
Prof. H. R. Patel	Two-week Industrial Training	Klearcom Infotech India Pvt Ltd.	July 15, 2024 – July 28, 2024

PARTICIPATION

Name	Training/Program	Organization	Duration
Prof. M. V. Chauhan	Two-week Industrial Training	Sabarkantha District Co-operative Milk Producers' Union Limited	July 15, 2024 – July 26, 2024
Prof. R. N. Vaza	Two-week Industrial Training	Dev Information Technology Ltd, Ahmedabad	July 15, 2024 – July 27, 2024
Prof. A. B. Parmar	Two-week Industrial Training	Dev Information Technology Ltd, Ahmedabad	July 15, 2024 – July 27, 2024
Prof. V. A. Rathod	Two-week Industrial Training	Kalpataru Projects International Limited, Gandhinagar	July 15, 2024 – July 26, 2024
Prof. N. N. Maltare	Two-week Industrial Training	Kalpataru Projects International Limited, Gandhinagar	July 15, 2024 – July 26, 2024
Prof. N. D. Goriya	Two-week Industrial Training	Kalpataru Projects International Limited, Gandhinagar	July 15, 2024 – July 26, 2024
Prof. V. R. Patel	Two-week Industrial Training	Kalpataru Projects International Limited, Gandhinagar	July 15, 2024 – July 26, 2024
Prof. U. R. Bhoi	Two-week Industrial Training	Kalpataru Projects International Limited, Gandhinagar	July 15, 2024 – July 26, 2024
Prof. N. V. Nagekar	Two-week Industrial Training	Kalpataru Projects International Limited, Gandhinagar	July 15, 2024 – July 26, 2024
Prof. V. A. Rathod	Two-week Industrial Training	Sabarkantha District Co-operative Milk Producers' Union Limited	August 5, 2024 – August 16, 2024
Prof. M. K. Rathva	Two-week Industrial Training	Matrix Telecom Security	July 8, 2024 – July 20, 2024
Prof. R. J. Prajapati	Two-week Industrial Training (Software Development)	TatvaSoft, Ahmedabad	June 24, 2024 – July 6, 2024
Prof. R. J. Prajapati	Two-week Industrial Training	Radix Software Services Pvt. Ltd., Ahmedabad	(Start date missing) – (End date missing)

PARTICIPATION

Name	Training/Program	Organization	Duration
Prof. R. J. Prajapati	FDP on Generative AI and Its Applications with Computer Vision	Lalbhai Dalpatbhai College of Engineering, Ahmedabad	December 16, 2024 – December 21, 2024
Prof. N. N. Maltare	FDP on Generative AI and Its Applications with Computer Vision	Lalbhai Dalpatbhai College of Engineering, Ahmedabad	December 16, 2024 – December 21, 2024
Prof. P. S. Modi	FDP on Generative AI and Its Applications with Computer Vision	Lalbhai Dalpatbhai College of Engineering, Ahmedabad	December 16, 2024 – December 21, 2024
Prof. S. A. Vahora	FDP on Generative AI and Its Applications with Computer Vision	Lalbhai Dalpatbhai College of Engineering, Ahmedabad	December 16, 2024 – December 21, 2024
Prof. H. R. Patel	FDP on Generative AI and Its Applications with Computer Vision	Lalbhai Dalpatbhai College of Engineering, Ahmedabad	December 16, 2024 – December 21, 2024
Prof. M. M. Goyani	Two-week Industrial Training	Silver Touch Technologies Limited, Ahmedabad	July 1, 2024 – July 12, 2024
Prof. M. M. Goyani	Two-week Industrial Training	Sahana System Ltd	July 17, 2024 – July 31, 2024
Prof. A. A. Prajapati	Two-week Industrial Training	Silver Touch Technologies Limited, Ahmedabad	July 1, 2024 – July 12, 2024
Prof. A. A. Prajapati	Two-week Industrial Training	Mehsana Dairy and Food Products, Mehsana	July 29, 2024 – August 9, 2024
Prof. A. A. Prajapati	FDP on Artificial Intelligence in AI and Aerial Robotics	K D Polytechnic, Patan	December 16, 2024 – December 21, 2024

PARTICIPATION

Mechanical & Automobile Engineering Department

Name	Training/Program	Organization	Duration
Prof. P. M. Mistri	NPTEL-AICTE FDP on "Sustainable Energy Technology"	SWAYAM NPTEL	July 22, 2024 – October 13, 2024
Prof. P. M. Mistri	NPTEL-AICTE FDP on "Educational Leadership"	SWAYAM NPTEL	July 22, 2024 – October 13, 2024
Prof. H. I. Chaudhari	NPTEL-AICTE FDP on "Sustainable Energy Technology"	SWAYAM NPTEL	July 22, 2024 – October 13, 2024
Prof. H. I. Chaudhari	NPTEL-AICTE FDP on "Educational Leadership"	SWAYAM NPTEL	July 22, 2024 – October 13, 2024
Prof. M. G. Patel	NPTEL-AICTE FDP on "Sustainable Energy Technology"	SWAYAM NPTEL	July 22, 2024 – October 13, 2024
Prof. M. G. Patel	NPTEL-AICTE FDP on "Educational Leadership"	SWAYAM NPTEL	July 22, 2024 – October 13, 2024
Prof. R. B. Shah	NPTEL-AICTE FDP on "Solar Energy Engineering And Technology"	SWAYAM NPTEL	July 22, 2024 – October 13, 2024
Prof. M. J. Vanajara	Industrial Training at Australian Premium Solar (India) Ltd.	Australian Premium Solar (India) Ltd., Prantij, Gujarat	August 7, 2024 – July 20, 2024
Prof. M. J. Vanajara	Industrial Training at GMDC Ltd.	GMDC Ltd., Ahmedabad Office & Bhavnagar Mines	July 22, 2024 – August 3, 2024
Prof. V. J. Chauhan	Industrial Training on Advanced Dairy Technology	Sabarkantha District Cooperative Milk	July 15, 2024 – July 27, 2024

PARTICIPATION

Name	Training/Program	Organization	Duration
		Producers' Union Ltd., Sabar Dairy-Himatnagar	

Science and Humanities Department

Name	Training/Program	Organization	Duration
Prof. K. B. Naik	Industrial Training on Computational Fluid Dynamics in Design of Various Equipment	Larsen & Toubro Limited (HE-IC), Vadodara	July 1, 2024 – July 13, 2024
Prof. D. H. Sahay	Industrial Training	Laser Technology	July 1, 2024 – July 13, 2024
Prof. R. P. Khatri	Industrial Training	Laser Technology	July 1, 2024 – July 13, 2024
Prof. D. H. Sahay	Industrial Training on Solar Cell Manufacturing	Solar Cell Manufacturing	July 16, 2024 – July 30, 2024
Prof. R. Khatri	Industrial Training on Solar Cell Manufacturing	Solar Cell Manufacturing	July 16, 2024 – July 30, 2024

ACHIEVEMENTS

FACULTY ACHIEVEMENTS

Nimesh Soni has completed Doctor of Philosophy (Ph.D.) under the guidance of **Prof. J. A. Vadher** from Mechanical Engineering Department in December 2024.

Prof. J. A. Vadher from Mechanical Engineering Department has been included in the Elite Icon of India 2024, as published in Business talk magazine.

https://www.businesstalkz.com/2024/12/elite-icons-of-india-2024.html

Prof. M. M. Bhunga from civil engineering department has successfully translated the AICTE book "Engineering Geology" into Gujarati. This translation, completed in May 2024, aims to enhance accessibility for Gujarati-speaking students and professionals. The initiative is part of AICTE's efforts to promote technical education in regional languages.

Prof. N. V. Upadhyay from electrical engineering department successfully earned her Ph.D. from Indus University under the guidance of Dr. Sweta Shah. Her research focused on "Integrated Prediction Strategies with Improved Anti-Islanding Protection Scheme for Distributed Generation Systems." She was awarded the degree on 24th July 2024.

Prof. D. U. Thakar from electrical engineering department has been granted a patent for "An Integrated Drive System for Electric Vehicles with Enhanced Efficiency and Performance." The patent, with Application No: 202421053649, was officially granted on 14th July 2024.

Invention Title	AN INTEGRATED DRIVE SYSTEM FOR ELECTRIC VEHICLES WITH ENHANCED EFFICIENCY AND PERFORMANCE
Publication Number	31/2024
Publication Date	02/08/2024
Publication Type	INA
Application Number	202421053649
Application Filing Date	14/07/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	ELECTRICAL
Classification (IPC)	B60L15/20, B60L50/60, B60L50/52

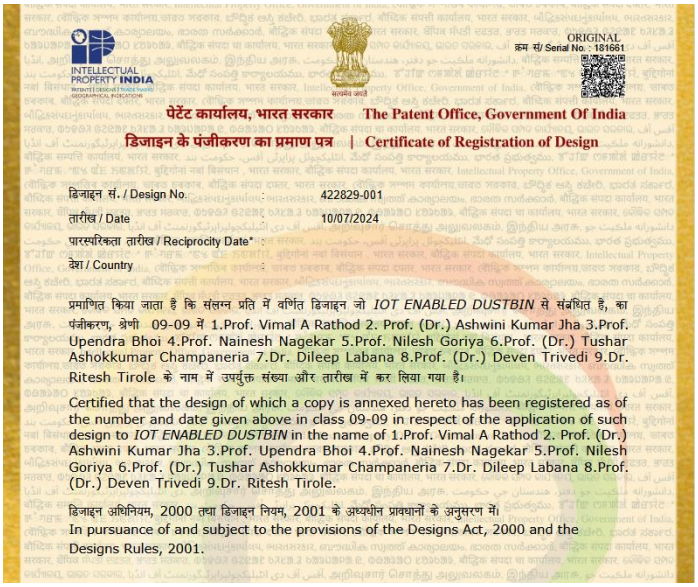
Inventor

Name	Address	Country	Nationality
Mr. Darshan Upendrabhai Thakar	Assistant Professor, Electrical Engineering Department, Government Engineering College, Modasa, Pin: 383315, Gujarat, India.	India	India
Ms. P. Sudeepika	Assistant Professor, Anantha Lakshmi Institute of technology and Sciences, Near S.K.	India	India

ACHIEVEMENTS

Prof. P. V. Patel from electronics & communication department secured 2nd position in both singles and doubles at the GECTGOA Badminton Tournament held on 19th October 2024 at Gymkhana, Sector-21, Gandhinagar.

Prof. V. A. Rathod, Prof. U. R. Bhoi, Prof. N. V. Nagekar, Prof. N. D. Goriya, and Prof. T. A. Champaneria from computer and information technology department have successfully published a Design Patent on "IoT Enabled Dustbin" on 1st October 2024. This innovation aims to enhance waste management efficiency using IoT technology.



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क्रम सं/ Serial No. : 181661

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डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

डिजाइन सं. / Design No. : 422829-001

तारीख / Date : 10/07/2024

पारस्परिकता तारीख / Reciprocity Date* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो *IOT ENABLED DUSTBIN* से संबंधित है, का पंजीकरण, श्रेणी 09-09 में 1.Prof. Vimal A Rathod 2. Prof. (Dr.) Ashwini Kumar Jha 3.Prof. Upendra Bhoi 4.Prof. Nainesh Nagekar 5.Prof. Nilesh Goriya 6.Prof. (Dr.) Tushar Ashokkumar Champaneria 7.Dr. Dileep Labana 8.Prof. (Dr.) Deven Trivedi 9.Dr. Ritesh Tirole के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 09-09 in respect of the application of such design to *IOT ENABLED DUSTBIN* in the name of 1.Prof. Vimal A Rathod 2. Prof. (Dr.) Ashwini Kumar Jha 3.Prof. Upendra Bhoi 4.Prof. Nainesh Nagekar 5.Prof. Nilesh Goriya 6.Prof. (Dr.) Tushar Ashokkumar Champaneria 7.Dr. Dileep Labana 8.Prof. (Dr.) Deven Trivedi 9.Dr. Ritesh Tirole.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।
In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

A team from the Information Technology Department—Havi Jani, Hassan Gadhawala, Parth Sharma, Shahid Khan Pathan, Nehi Patel, and Srushti Patel—was selected for the Grand Finale of the Smart India Hackathon (SIH) 2024 and participated in the event at the nodal center, IIT Gandhinagar, on 11th-12th December 2024.

AI in Education

The field of Artificial Intelligence (AI) has emerged as a transformative force across various sectors, and education is no exception. AI tools are changing traditional teaching and learning paradigms in educational settings. From providing personalized learning experiences to administrative efficiency, AI addresses long-standing challenges and creates new opportunities for educators and learners.

Personalization of Learning

One of the most significant contributions of AI to education is its ability to provide personalized learning experiences. Traditional classrooms often struggle to cater to the diverse needs of students. AI tools, however, can analyse individual learning patterns, preferences, and paces to deliver customized content. Platforms like Khan Academy and Duolingo employ AI algorithms to adapt lessons to the user's skill level and learning speed, ensuring that no student is left behind or unchallenged.

For example, adaptive learning systems use real-time data to adjust the difficulty level of exercises, recommend additional resources, and identify knowledge gaps. This not only enhances student engagement but also improves learning outcomes.

Enhanced Accessibility

AI tools are breaking down barriers to education for students with disabilities. Text-to-speech (TTS) and speech-to-text (STT) technologies make it easier for visually impaired and hearing-impaired students to access educational materials. AI-driven transcription tools, like Otter.ai, enable real-time captioning of lectures, making classrooms more inclusive.

Moreover, AI-powered translation tools help bridge language gaps, allowing students from different linguistic backgrounds to access the same educational resources. This democratization of learning materials empowers students worldwide to learn in their preferred language and at their own pace.

Automating Administrative Tasks

Educators often spend a significant portion of their time on administrative tasks, such as grading assignments, tracking attendance, and preparing lesson plans. AI tools can automate these repetitive tasks, freeing up valuable time for teachers to focus on more meaningful activities, such as mentoring students and designing engaging curricula.

For instance, AI-powered grading systems can evaluate essays and tests with remarkable accuracy, providing detailed feedback on areas of improvement. Learning management systems (LMS) like Canvas and Moodle incorporate AI to track student progress and generate insights, enabling teachers to make data-driven decisions.

Intelligent Tutoring Systems

AI-driven tutoring systems are revolutionizing supplementary education. Intelligent tutoring systems (ITS) like Carnegie Learning and Squirrel AI offer one-on-one tutoring experiences that mimic human interaction. These systems provide immediate feedback, answer queries, and guide students through complex topics in a step-by-step manner. Unlike traditional tutors, AI tutors are available 24/7, making learning more accessible and flexible.

Data-Driven Insights

AI tools enable educators to harness the power of big data. By analyzing large volumes of educational data, AI systems can identify trends, predict outcomes, and offer actionable insights. For example, predictive analytics can identify students at risk of falling behind, allowing educators to intervene proactively. Additionally, data visualization tools help educators understand complex patterns in student performance and engagement.

Ethical Considerations and Challenges

While AI offers numerous benefits, its integration into education also raises ethical concerns. Data privacy and security are significant issues, as AI tools often require access to sensitive student information. Ensuring that data is collected, stored, and used responsibly is paramount.

Additionally, there is a risk of over-reliance on AI, which could undermine the role of human educators. Striking a balance between leveraging AI capabilities and preserving the human element of teaching is crucial for maintaining the quality and integrity of education.

Here I am listing some of the popular AI tools for education.

1. Duolingo
   - Use: Language learning platform.
   - Application: Provides personalized language lessons using AI algorithms to adapt to individual learning styles and progress.
2. Khan Academy
   - Use: Online education platform.
   - Application: Uses AI to offer personalized learning experiences, track student progress, and suggest targeted resources.
3. Grammarly
   - Use: Writing assistance tool.
   - Application: Helps students improve their writing by identifying grammar, punctuation, and style errors using AI-driven analysis.
4. Otter.ai
   - Use: Transcription tool.
   - Application: Converts speech to text for note-taking, making lectures and discussions accessible to all students.

5. Canvas
   - Use: Learning Management System (LMS).
   - Application: Integrates AI to track student progress, automate administrative tasks, and facilitate personalized learning experiences.
6. Coursera
   - Use: Online course platform.
   - Application: Employs AI to recommend courses, track learning progress, and tailor content to individual needs.
7. Carnegie Learning
   - Use: Intelligent tutoring system.
   - Application: Provides AI-driven tutoring for subjects like math, offering real-time feedback and personalized learning paths.
8. Canva
   - Use: Design and collaboration tool.
   - Application: Enables students to create visually appealing projects, fostering creativity and collaboration.
9. DreamBox Learning
   - Use: Math education platform.
   - Application: Adapts lessons to the learner's skill level, providing a customized and engaging learning experience.
10. Squirrel AI
    - Use: Adaptive learning system.
    - Application: Offers personalized tutoring and identifies knowledge gaps using AI algorithms.
11. Turnitin
    - Use: Plagiarism detection and writing feedback tool.
    - Application: Uses AI to ensure academic integrity and provide detailed feedback on student writing.
12. Google Translate
    - Use: Translation tool.
    - Application: Helps students and educators overcome language barriers by providing instant translations and pronunciation assistance.
13. Classcraft
    - Use: Gamification platform.
    - Application: Uses AI to create gamified learning experiences, improving student engagement and classroom management.
14. Perlego
    - Use: Digital textbook platform.
    - Application: Employs AI to recommend relevant academic resources and create personalized reading lists.

- **Dr. Mahesh Goyani, Assistant Professor, GEC, Modasa.**

GECM E-News

Newsletter | July – December 2024

Government Engineering College, Modasa.

Editorial Team

Dr. J. A. Vadher (Principal (I/C), GECM)

Prof. C. R. Parekh

Dr. H. S. Pandya

Prof. D. J. Bhayani

Prof. S. H. Mansuri

Prof. B. A. Vyas

Dr. S. A. Vahora

Dr. A. J. Patel

Prof. J. R. Bhavsar

newsletter@gecmodasa.ac.in (+91)02774 242 633/634 http://www.gecmodasa.ac.in

Shamlaji Road, Aravali District, Modasa, Gujarat 383315