

TAPI DIPLOMA ENGINEERING COLLEGE

(Managed by Shree Tapi Brahmcharyashram Sabha Trust, Surat)
Approved by AICTE, New Delhi & Afilated to GTU, Ahmedabad.
(Mechanical, Computer NBA Accredited)

**NEWSLETTER
2026
VOLUME-3**

Founder of trust



आभवाक्ति

The word of expression..
A Quarterly Newsletter

Issue from

July to september



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Vision, Mission & Governing Body

INSTITUTIONAL DIRECTION

Vision



- “To build sound engineers with an orra of human values who are determined for social betterment.”

Mission

To develop the Tapi Diploma Engineering College into a “Center of Excellence” in the field of Technical Education by :



- Providing the state of art laboratories & institutional facilities.
- Encuraging students to study beyond the curriculum.
- Creating an Environment for al round integrated personality development of students.

Quality Policy



The knowledge airented system & excellent teaching faculty of the institute, develop a learning environment for all and faster continues improvement in the qulity of academic work.

Also recognize and improve the skill of student through various curricular & co-curricular activities.

Governing Body

Dr. Vajubhai G. Mavani

President

Shri Rakeshbhai M. Jain

Vice President

Shri Dineshbhai R. Navadiya

Treasurer

Shri Hemantbhai J. Topiwala

Hon. Secretary

Shri Jivrajibhai P. Surani

Trustee

Shri Babubhai V. Kotadiya

General Manager

From The Desk of Principal



Dear Students,

It is my pleasure to connect with the students of Computer engineering.

Magazine reflect the creativity of students as well as technical competency in their field.

Stay updated with the things happening in the field of Computer engineering worldwide.

Attend the classes regularly, work hard and prove your mettle bright.

Wishing you all the joy and entertainment for the forth coming events & festival like Navratri & Diwali 2026.

Thank you.

Dr. Y. S. Choupare

Principal, Tapi Diploma Engineering College, Surat.

Student Industrial Visit



Automobile Engineering Department

Industrial Visit



Industrial Visit for **3rd** Semester Students of Automobile Engineering Department is arranged at **PUC Center of Uma Petrol Pump, Kapodara, Surat** as a part of curriculum of **Pollution Control Engineering** on 31/08/2026 along with faculty **Mr. G. A. Rabadiya (Lecturer, AED)**.



Chemical Engineering Department

Industrial Visit



An **Industrial Visit** at **VAIKUNTH CHEMICALS PVT. LTD., PANOLI** was arranged for the students of **Semester 5** (Class 2451-CH) & **Semester 3** (Class 2531-CH) to understand the various subjects dated on **18th August 2026**.



Civil Engineering Department

Industrial Visit



Industrial Visit to a Residential Building Construction Site at **Silent River, Sarthana Jakhatnaka, Surat**, was arranged for 5th semester Civil Engineering students on **07/09/2026** under the subject **Design of Reinforced Concrete Structures** with faculty **Mrs. P. M. Jariwala**. Students observed key construction stages such as beam, column, slab, footing, shear wall and staircase.



Electrical Engineering Department

Industrial Visit

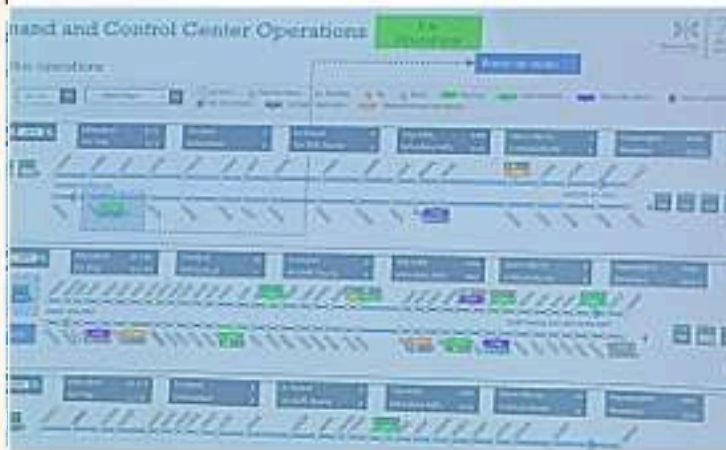


An industrial visit was organized for 5th semester Electrical Engineering students to **Astek Electricals India Pvt. Ltd., Surat**, on **09/09/2026** as part of the subject **Power Electronics Converters**. The visit provided practical exposure to power electronic converters, their operation, industrial applications and manufacturing practices.

Student Industrial Visit

COMPUTER ENGINEERING DEPARTMENT

ICCC – Integrated Command and Control Center, Surat



Date:
29/09/2026



Activity:
Industrial Visit



3rd Semester students of the Computer Engineering Department visited ICCC, Surat for an educational tour focused on computer networking concepts and smart city operations.

Industrial Visit

Sumul Dairy Visit

Mechanical, Electrical, Automobile & IT

 Date: 03/08/2026

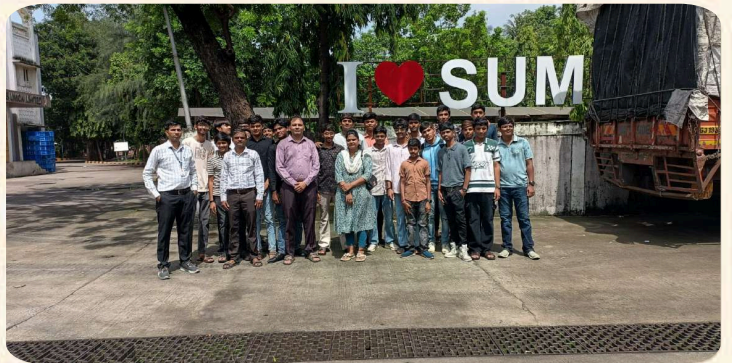
1st Semester students visited Sumul Dairy as part of the Induction Program.



Civil, Computer & Chemical

 Date: 04/08/2026

1st Semester students visited Sumul Dairy as part of the Induction Program.



Expert Lectures



**Chemical & Civil
Engineering Department**

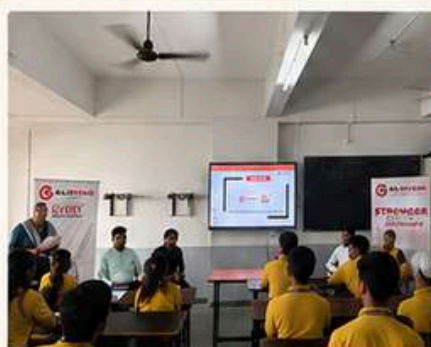


Date
27/08/2026

3rd Semester



Topic
Green Hydrogen Technology



**Civil Engineering
Department**



Date
25/08/2026



Topic
Steel Manufacturing Process

3rd Semester



**Computer Engineering
Department**



Date
27/08/2026



Topic
REST API & Retrofit Library

5th Semester

T & P Committee Activity

Aptitude Session

25/08/2026



An aptitude session on Number System, Percentage, Profit/Loss and Discount was conducted for 5th semester Computer Engineering students. The activity, guided by Pankaj Desai and Payal Gosai, helped improve numerical ability, logical thinking and exam readiness.

Student Counselling Session

Automobile Engineering Department

27/07/2026



A student counselling session was conducted for 5th semester Automobile Engineering students by Mr. G. A. Rabadiya. The session guided students about future scope, job opportunities and higher studies.

ISTE Students Chapter

Automobile Engineering Department

Awareness Program - 2026



Department: Automobile Engineering Department

1st Semester

Activity: ISTE Students Chapter - Awareness Program 2026

Date: 27/08/2026



Computer Engineering Department

Awareness Program - 2026



Department: Computer Engineering Department

1st Semester

Activity: ISTE Students Chapter - Awareness Program 2026

Date: 27/08/2026



IIC & NSS ACTIVITY

IIC Committee

From Vision to Venture: Inspiring Entrepreneurial Success Stories



Date:
20/08/2026



Topic:
From Vision to Venture:
Inspiring Entrepreneurial Success Stories

3rd Semester

Managed By: Shree Tapi Brahmacharyulram Sabha, Surat
TAPI DIPLOMA ENGINEERING COLLEGE
(Approved by AKTE New Delhi & Affiliated to GTU Ahmedabad)

INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education, India)

In Celebration of World Entrepreneur's Day
IIC Committee Presents

**From Vision to Venture -
Inspiring Entrepreneurial Success Stories**

Date: 20-08-2026
Time: 01:30 PM onwards
Venue: T-19

Session Delivered by
Mr. Nishant M. Raval
Lecturer,
Computer Engineering Department,
TDEC, Surat

Participants
3rd Semester
Students of Computer
Department

Mr. N. M. Raval
Coordinator

Mr. J. D. Ramani
IIC Convener

Dr. Y. S. Choupare
Principal



NSS Committee

Bhartiya Sanskriti Gyan Pariksha



Date:
19/09/2026



Topic:
Bhartiya Sanskriti Gyan Pariksha

5th Semester



Co-Curricular Activity

WordPress Campus Connect Programme



Date: 25 & 26-Sep-2026



Department: Computer and Information Technology
(Final Year)

Interesting Facts About Automobile



Date: 10-8-2026



Department: Automobile (Final Year)

Co-Curricular Activity

Ethics Week Celebration

Information Technology Department

3rd Semester



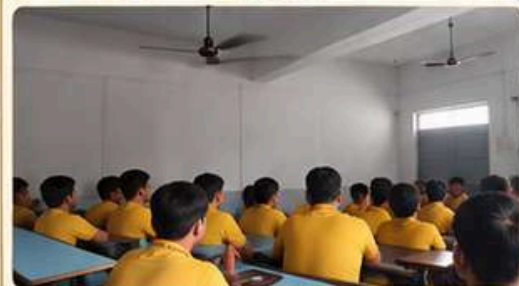
Date: 07/09/2026 to 11/09/2026



Information Technology Department

Educational Movie Screening

Bhopal Gas Tragedy & Texas Refinery Blast



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TAPI DIPLOMA ENGINEERING COLLEGE
Formerly: Shree Tapti Brahacharyasireen Sahita College of Diploma Engineering
Approved by AICTE New Delhi & Affiliated to GTU Ahmedabad
Accredited by N.B.A. (Mechanical & Computer)
(National Board of Accreditation, New Delhi)

CHEMICAL ENGINEERING DEPARTMENT
Organizes
EDUCATIONAL MOVIE Screening
ON
BHOPAL GAS TRAGEDY & TEXAS REFINERY BLAST

BHOPAL DISASTER 3 DISASTERS YOU NEVER FORGET

DATE: 21/07/26 (Tuesday) | TIME: 2:45 PM ONWARDS | VENUE: 5B SMART ROOM | TARGET AUDIENCE: CHEMICAL ENGINEERING STUDENTS (1ST & 2ND SEM)



Date: 21/07/2026



Chemical Department

3rd Semester

Extra Co-Curricular Committee



Janmashtami Mahotsav – 2026



03/09/2026



Arranged by Utsav – Cultural Club



Teacher's Day Elocution Competition



05/09/2026



Students participated in the elocution competition on the occasion of Teacher's Day.



Awareness Session on Cyber Crime



24/08/2026



Organized for 1st & 3rd semester students to create awareness about cyber safety.



Monitoring cell Committee

The Self Defence Workshop



18/9/26



Organized for all students -SELF DEFENCE workshop

Skill-Based Training Presentation

5th Semester Computer Engineering & Civil Engineering Department

Computer Engineering Department

Date: 04/07/2026

Students presented their skill-based training work, highlighting practical learning and industry-oriented understanding.



Civil Engineering Department

Date: 10/07/2026

Students showcased their project learning, technical presentation skills and outcomes from skill-based training.



1st sem Parents Meeting

Mechanical & Automobile Department

05/08/2026



A parents-teacher meeting for first-year Mechanical & Automobile students was held on 05/08/2026. The session focused on academic rules, attendance, discipline and student support.

Civil Engineering Department

05/08/2026



A parents-teacher meeting for first-year Civil Engineering students was held on 05/08/2026. The session highlighted academic guidance, discipline, rules and departmental orientation.

Computer & Information Technology Department

06/08/2026



A parents-teacher meeting for first-year Computer & Information Technology students was held on 06/08/2026. The discussion focused on academics, discipline, attendance and student support.

Recent Visit of NBA Team

11th, 12th and 13th September 2026



Acknowledgement and Appreciation

It gives me immense pleasure and pride to share that the National Board of Accreditation (NBA) accreditation team recently visited our Departments of Mechanical and Computer Engineering for the assessment and evaluation of our academic and institutional practices. On behalf of the Department of Mechanical Engineering, I would like to express my heartfelt gratitude to the respected Management, Principal, faculty members, administrative staff, students, alumni and all stakeholders who contributed their valuable time, efforts and support towards this important milestone.

The NBA accreditation process has been a collective journey of dedication, teamwork, continuous improvement and commitment to quality education. The successful coordination of academic activities, preparation of documentation, presentation of departmental practices, interaction with the visiting team and demonstration of our facilities would not have been possible without the sincere contribution of every individual involved.

Special Thanks to Our Students

I sincerely thank all our students for their active participation, cooperation and valuable interaction with the NBA accreditation team. Your enthusiasm, discipline, academic involvement and honest feedback have helped demonstrate the learning environment and educational practices of our department. Students are the heart of our institution, and their achievements, learning outcomes and overall development remain our primary responsibility and motivation.

Gratitude to Our Alumni

I extend my sincere thanks to all our alumni for their continued association, valuable feedback and contribution to the development of the department. Your professional achievements, industry experience and suggestions provide meaningful inputs for curriculum improvement, skill development and strengthening industry-oriented education. Your connection with the department reflects the lasting relationship between our institution and its graduates.

Appreciation to Faculty and Staff

I would like to place on record my sincere appreciation for the dedicated efforts of all faculty members and supporting staff of the Mechanical Engineering Department. Your teamwork in academic planning, documentation, laboratory preparation, student guidance, outcome-based education practices and coordination of the NBA visit has been highly valuable. I also extend my thanks to the Principal, Management and all supporting departments for their guidance, encouragement and cooperation throughout this process.

This achievement-oriented journey belongs to the entire departmental family.

Recent Visit of NBA Team

11th, 12th and 13th September 2026

Benefits of NBA Accreditation

NBA accreditation is an important step towards strengthening quality assurance, outcome-based education and continuous improvement in technical education. It provides an opportunity for our department to enhance academic practices, develop industry-relevant skills and focus on the overall development of students.

1. Benefits to Students

- Promotes outcome-based education with greater focus on measurable learning outcomes.
- Encourages development of technical knowledge, practical skills, problem-solving abilities and professional competencies.
- Strengthens laboratory learning, project work, internships and industry-oriented education.
- Enhances students' confidence, employability and readiness for higher studies and professional careers.
- Encourages continuous feedback, academic improvement and student participation in departmental activities.

2. Benefits to Alumni

- Strengthens the relationship between alumni and the institution.
- Provides opportunities for alumni to contribute industry feedback, expert guidance and mentoring.
- Supports continuous improvement of curriculum and skill development based on professional requirements.
- Enhances the academic reputation and quality culture of the department, supporting the value of the educational experience.

3. Benefits to Faculty and Staff

- Encourages professional development, innovative teaching and continuous improvement in academic practices.
- Promotes teamwork, documentation, academic planning and effective implementation of outcome-based education.
- Provides opportunities for faculty members to improve teaching methodologies, research activities and industry interaction.
- Develops a culture of accountability, quality assurance and shared responsibility.
- Strengthens the professional growth and academic contribution of the entire department.

4. Benefits to the Department

- Strengthens academic quality systems and continuous improvement processes.
- Encourages systematic attainment and assessment of Program Outcomes (POs) and Program Educational Objectives (PEOs).
- Promotes industry interaction, practical training, laboratory development and skill-based education.
- Enhances the department's academic credibility and commitment to quality technical education.
- Provides a structured framework for reviewing strengths, identifying gaps and implementing improvement plans.

5. Benefits to the Institute

- Strengthens the institution's commitment to quality technical education and academic excellence.
- Promotes a culture of continuous improvement, accountability and stakeholder participation.
- Enhances institutional academic credibility and confidence among students, parents, alumni and industry.
- Encourages better academic planning, infrastructure development and quality management practices.
- Supports the institute's long-term vision of producing technically competent, skilled and responsible engineering professionals.

The NBA accreditation visit has been a valuable learning experience and an important milestone in the continuous development of our Mechanical Engineering Department. We believe that the efforts made during this journey will contribute to strengthening our academic standards, improving student learning experiences and creating better opportunities for our students and graduates. I once again express my sincere thanks to every student, alumnus, faculty member, supporting staff member, Principal and Management for their valuable contribution, cooperation and trust.

Let us continue working together with the same dedication, unity and commitment towards excellence in technical education.

"Quality education is a collective responsibility, and continuous improvement is our shared commitment."

With sincere gratitude,

Mr. V.J.Rana

Lecturer

Department of Mechanical Engineering

Tapi Diploma Engineering College, Surat

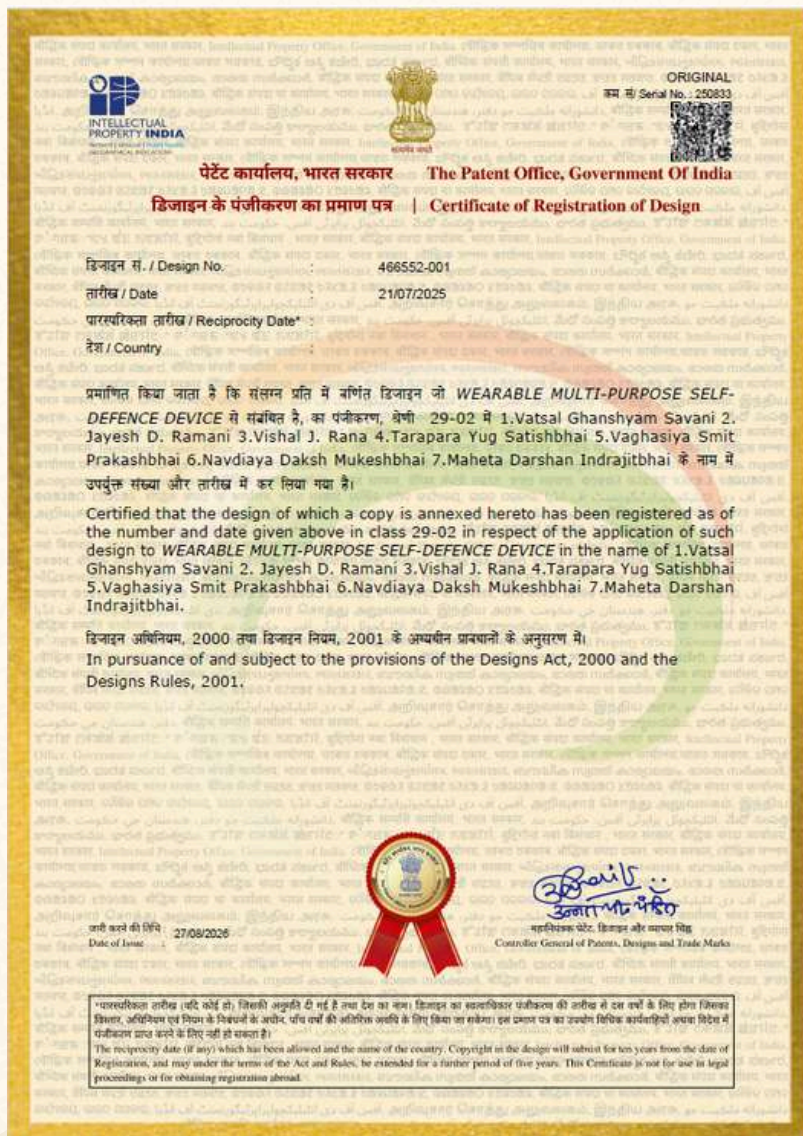
Mr. J.D.Ramani

Head of Department

Department of Mechanical Engineering

Tapi Diploma Engineering College, Surat

Faculty Achievement



Patent Registration

Under Design No.: 466552-001, Patent of WEARABLE MULTI-PURPOSE SELF-DEFENCE DEVICE is registered by our students of mechanical department, Vatsal Ghanshyam Savani, Tarapara Yug Satishbhai, Vaghasiya Smit, Prakashbhai, Navdiya Daksh Mukeshbhai, Maheta Darshan Indrajitbhai and Jayesh D. Ramani (HOD -MED), Vishal J. Rana (Lecturer-MED)



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DESIGN AND DEVELOPMENT OF MANUAL MULTIPURPOSE FOOD PREPARATION MACHINE

Priyank M. Ghaskata¹, Jayesh D. Ramani², Vishal J. Rana³, Het G. Sakhiya⁴, Meet K. Radadiya⁵,
Uttam Singh F. Gohil⁶

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Abstract - Most modern food preparation appliances rely heavily on electricity, which poses a significant challenge for vendors and households in rural areas prone to regular power cuts. This paper details the design and development of a manual multipurpose machine capable of performing dough kneading, chopping, and mixing/grinding without electrical power. The system utilizes a hand-operated handle connected to a gear mechanism that drives multiple functional shafts simultaneously or individually. By providing a portable, sturdy, and economic solution, this machine eliminates electricity costs and improves food preparation efficiency for small-scale vendors and rural users.

Key Words: Manual Multipurpose Machine, Food Preparation, Bevel Gear, Powerless Solution, Rural Development, Mechanical Design

2.2 "A study on Quick Return Mechanisms in Shaper, Planner and Slotter machines": [2]

This research paper includes detailed information about different types of quick return mechanism used in industries and different machineries like shaper, planner, slotter. Detailed information about this machines, their application and usage. Also how quick return mechanism works and is used in different places.

2.3 "Analysing Bevel Gears for Efficient Power Transmission": [3]

The study compares four different materials—gray cast iron, stainless steel, structural steel, and titanium alloy—to determine their suitability for efficient power transmission.

Paper Publication

Agentic AI: The Next Generation of Artificial Intelligence

Artificial Intelligence (AI) has rapidly changed the way we learn, work, communicate and solve problems. Traditional AI systems generally respond to a user's instructions—for example, answering a question, generating text, recognizing an image or providing recommendations. Agentic AI represents the next step, where AI systems can understand goals, plan tasks, make decisions, use digital tools and take actions with limited human intervention.

What is Agentic AI?

Agentic AI refers to AI systems designed to behave like intelligent agents. Instead of simply providing an answer, an AI agent can receive a goal, break it into smaller tasks, determine an appropriate sequence of actions, use available tools or applications, evaluate results and adjust its approach when required.

For example, if a student asks an AI agent to prepare a project report, the agent could identify the required topics, collect relevant information, organize the content, create tables or diagrams, check the report and prepare a final document. Human supervision remains important, particularly for accuracy and important decisions.

The Difference Between “Chatting” (GenAI) and “Doing” (Agentic)

While Generative AI (GenAI) excels at transforming data into knowledge, creating text, summaries, or code, Agentic AI translates that knowledge into action.

LLMs provide the reasoning foundation, but on their own, they are passive. Agentic AI bridges this gap by simulating human judgment to move processes forward.

GenAI supports tasks: It can draft an email or analyze a document.

Agentic AI executes workflows: It can draft the email, look up the recipient in the CRM, attach the correct invoice, and send it, handling exceptions like missing data without human intervention.

Benefits and Challenges

The major advantage of Agentic AI is its ability to automate multi-step tasks, potentially improving productivity and reducing repetitive work. It can also help humans analyze large amounts of information and make workflows more efficient.

However, Agentic AI also introduces challenges. AI agents may make incorrect decisions, use inaccurate information or take unintended actions. Privacy, cybersecurity, transparency, human supervision and responsible use are therefore essential. Students should understand that AI-generated information should always be verified before it is used for academic, professional or critical purposes.

The Future

Agentic AI is moving AI from ‘answering questions’ toward ‘achieving goals through actions.’ In the coming years, AI agents may become important assistants in education, software development, engineering, business and smart systems. For students, understanding how these systems work—and learning to use them responsibly, creatively and ethically—will be an important part of becoming future-ready technology professionals.

“

The future of AI is not only about generating answers—it is about intelligently turning goals into actions.

”

Mr. Mitul V. Patel
I/C HOD
Computer Department

The AI That Walks: Exploring Tiangong Ultra

Artificial Intelligence is no longer limited to chatbots, text generation and computer applications. The next major step is **Physical AI** — AI systems that can understand the physical world and control machines such as robots. A remarkable example of this development is **Tiangong Ultra**, a humanoid robot from China.

In August 2026, Tiangong Ultra attracted worldwide attention at the World Humanoid Robot Games in Beijing. It completed the **100-metre race in 8.64 seconds**, improving from 9.39 seconds in an earlier round and 8.86 seconds in the semifinals. For comparison, **Usain Bolt's men's 100-metre world record is 9.58 seconds**. The robot's performance demonstrated rapid advances in robotic movement, balance and control.



But the most interesting part of Tiangong Ultra is not simply its speed. The real challenge for humanoid robots is to move reliably, understand their surroundings and perform useful tasks in the real world. Engineers are working on improving its motors, joints, lightweight structure, balance and control systems. The development team has said that the focus is now shifting from high-performance demonstrations toward reliability and practical applications.

Tiangong Ultra represents the combination of several important technologies. Artificial Intelligence helps with decision making and control, while computer vision and sensors allow the robot to perceive its surroundings. Advanced motors and mechanical systems provide movement, while software and machine-learning techniques help coordinate the robot's body.

For Information Technology and Computer students, Tiangong Ultra provides an exciting example of how different areas of IT are coming together.

The development of humanoid robots also creates new opportunities for IT professionals. Students with knowledge of Python, AI/ML, computer vision, robotics, data analytics and cybersecurity can contribute to this emerging field. Tiangong Ultra's 8.64-second run is therefore more than just a race result — it represents a shift in the way we think about Artificial Intelligence, from systems that generate information on screens to intelligent machines that can sense, decide and act in the physical world.

“ The future of AI may not just be something we talk to. It may be something that walks, works and-interacts with us. ”

Mrs. B. B. Acharya
I/C Head of IT Department

FROM GURUKUL TO CONNECTED CLASSROOMS

Teaching-Learning Methodology: Connecting Indian Knowledge Systems with Modern Education

From Guru-Shishya interaction and learning by experience to smart classrooms, projects, simulations and responsible AI

Education has continuously evolved with society. The conventional classroom relied strongly on the teacher, textbook, blackboard and examination, while today's learners have access to digital libraries, online courses, simulations, collaborative platforms and artificial intelligence. At the same time, India has a rich educational heritage in which learning was associated with the Guru-Shishya relationship, observation, practice, dialogue, discipline, ethics, holistic development and knowledge connected with life. The opportunity before educators is not to choose between tradition and technology, but to connect valuable principles of Indian knowledge traditions with contemporary learner-centred pedagogy.

From Chalkboards to Connected Classrooms

Transforming Teaching-Learning Methodologies for Today's Students

How changing learners, emerging technologies and new educational expectations are reshaping the role of teachers

Education has never remained static. From the traditional "chalk-and-talk" classroom to smart classrooms, blended learning, virtual laboratories, artificial intelligence and project-based education, the teaching-learning process has undergone a remarkable transformation. The change, however, is not merely technological. The teacher, the student, the classroom environment and even the meaning of learning itself have changed.

The important question for educators is therefore not "Should technology replace traditional teaching?" but rather,

"How can teaching methodologies evolve to match the learners and requirements of the present generation?"

1 The Classroom Then and Now

Conventional Classroom (Then)



- Teacher as the primary source of knowledge
- Chalkboard and textbook
- Lecture-based
- Students listen and take notes
- Focus on memorisation and recall

Modern Classroom (Now)



- Teacher as facilitator and guide
- Digital tools and online resources
- Interactive and collaborative learning
- Students participate, question and explore
- Focus on understanding, application and creativity

2 From Teacher-Centred to Learner-Centred Education

Conventional Methodology



The teacher explains, students listen, and assessment determines how much information has been retained.

Contemporary Methodology



The teacher designs learning experiences, encourages critical thinking and helps students use the right resources.

9 What Should We Retain from Traditional Education?

Conventional Strength	Contemporary Enhancement
Teacher explanation	Interactive explanation
Blackboard	Digital board + visualisation
Textbook	Textbook + digital resources
Laboratory	Laboratory + simulation
Written examination	Multiple assessment methods
Individual learning	Individual + collaborative learning
Memorisation	Understanding + application
Teacher authority	Teacher mentorship
Fixed classroom	Blended and flexible learning

3 The Changing Profile of Students

Earlier Students Depended On

- Textbooks
- Classroom lectures
- Digital libraries
- Printed notes
- Teachers as primary information sources

Today's Students Have Access To

- Smartphones and tablets
- Search engines
- Online courses & videos
- Digital libraries
- Simulations
- Learning management systems
- AI tools and online communities

Today's students expect learning to be interactive, visual, flexible and relevant to real-world applications.

5 The Teacher: From Lecturer to Learning Designer



The teacher provides context, direction and human connection. Technology may provide information, but the teacher builds understanding.

7 Flipped Classroom & Collaborative Learning



9 Aha Should We Retain from Traditional Education?



4 Learning by Doing



Experiential learning helps students understand concepts more deeply when they actively experience and apply them.

For example, in Mechanical Engineering:

- 1 Concept & theory
- 2 Animation / 3D model
- 3 Laboratory demonstration
- 4 Simulation & calculations
- 5 Practical activity
- 6 Industrial application
- 7 Project-based experimentation

6 The Rise of Visual Learning

Animations, 3D models, simulations and real demonstrations help students grasp complex concepts in less time.

- Best for subjects involving:
- Machines and mechanisms
 - Thermodynamics
 - Fluid flow
 - Manufacturing processes
 - Complex systems

8 AI: A New Dimension

- Students can use AI for:
- Explanations
 - Practice questions
 - Programming help
 - Summarising information
 - Exploring alternatives
- Teachers can use AI for:
- Learning materials
 - Personalised learning
 - Analysing responses
 - Providing feedback
 - Creating activities

But remember - using AI is not the same as learning. Students must learn to question, verify and use AI ethically.

10 Conclusion

The classroom of the future may contain AI, VR, robotics, simulation and digital platforms. Yet, the most important element will remain the learner - the human relationship between teacher and learner.

The real transformation is not about replacing the traditional classroom with technology, but about creating a meaningful learning environment where technology, pedagogy and human interaction work together.

"The classroom has changed from a place where students receive knowledge to a place where students discover, experience, apply and create knowledge."

The transition from teacher-centred education to learner-centred, experiential and technology-supported learning.

Indian Knowledge System (IKS): Principles Relevant to Today's Classroom

Indian educational traditions included approaches in which the learner developed knowledge through close interaction with the teacher, listening and dialogue, observation, practice and reflection. Knowledge was often connected with conduct, responsibility, nature, society, language, arts, sciences and practical life. Without treating historical educational practices as identical to modern schooling, these broad principles can inspire contemporary education: **teacher–learner mentorship, learning through experience, questioning and dialogue, holistic development, respect for knowledge and environment, and connection between theory and practice.**

A Meaningful Bridge: IKS + Contemporary Pedagogy

Educational Principle	Traditional / IKS Connection	Contemporary Application
Mentorship	Guru–Shishya interaction and guidance	Teacher as mentor and facilitator
Learning by doing	Practice, observation and lived experience	Laboratories, projects, field work and simulations
Dialogue & inquiry	Questioning, discussion and reflection	Problem-based and inquiry-based learning
Holistic development	Knowledge linked with values and life	Technical + communication + ethical + social skills
Knowledge in context	Connection with society, nature and local practices	Local case studies, sustainability and interdisciplinary learning

The Classroom of Tomorrow

The most meaningful transformation is therefore a synthesis: retain the human connection, discipline, mentorship, dialogue, practical orientation and holistic outlook associated with valuable educational traditions, while using modern tools such as digital content, smart classrooms, project-based learning, simulations and AI. Technology can expand access to information, but teachers help students develop judgement, curiosity, ethics and the ability to apply knowledge. A future-ready Indian classroom can therefore be both technologically advanced and culturally rooted.



“From receiving knowledge to experiencing, questioning, applying and creating knowledge.”

J.D.Ramani

Head- Mechanical Department
Tapi Diploma Engineering College

Newsletter Committee

Principal

Dr. Y.S. Choupare

Staff Members



Mr. M. V. Patel

Computer Department

Students



Shreel Babariya

Computer Department



Vraj Vasaniya

Computer Department



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