

# 2023

## R. C. TECHNICAL INSTITUTE, AHMEDABAD ( Directorate of Technical Education, Gujarat State )



# SAMVAAD

● March 2024 ● Issue : 08 ● January 2023 - December 2023

Yearly Newsletter

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### From the Desk of Principal

It is with great enthusiasm that I address through this newsletter, reflecting on our past achievements and looking forward to the promising journey ahead. Year 2023 was full of excitement and activities. We organized a memorable tech fest named 'Anveshan, pratibha ki khoj' with the theme of 'G20' during 26-27 April, 2023 and there were many events under 'Azadi Ka Amrit Mahotsav' and lot more throughout the year.

To start with the tech fest 'Anveshan', I would undoubtedly say that it was a splendid event which surprised the visitors. The innovative projects and enthusiastic spirit of the students in each and every competition of the tech fest became remarkable. Events like Robo War, Collage Making, Working Project Competition, Treasure Hunt, etc. became the major attraction of the tech fest. The competition of General Quiz was designed and conducted in such an effective way that it gave a feeling of watching a popular TV game show 'Kaun Banega Crorepati' to the audience. All the departments, staff members, Gymkhana committee members, NSS volunteers, NCC cadets and students of our institute contributed to make the entire tech fest a successful event.

Our institute stands as a beacon of knowledge, fostering a culture of academic excellence, innovation, and character development. I am proud to witness the dedication of our students and the tireless efforts of our faculty. Throughout the year there were series of expert lectures and workshops organized by various departments to foster new insights and develop new skills. Along with routine teaching learning process, Gymkhana and NSS teams and various committees of the institute organized various programmes to empower students with knowledge system, cultural values, confidence and progress. Faculty members and students of the institute also participated in various events organized by Education Department and Government of Gujarat like Science Conclave, Semicon 2023 Conference, Startup Conclave, Summit of Success Pavilion, and so on. The faculty members and students got opportunities to witness and be part of growth journey of Gujarat by participating and attending such events.

At the end, I extend my best wishes to all for a fulfilling and successful academic year. May each student find inspiration, each faculty member experience the joy of teaching, and each staff member take pride in their invaluable contributions.



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## Go Green Activity

A tree plantation program was organized by Electrical Engineering Department on 2<sup>nd</sup> January 2023 under the banner of 'Go Green' concept. Trees are integral part of ecosystem and are essential for our survival. To make this activity successful, the Principal of our Institute Dr. P. A. Raval along with Head of Electrical Engineering Department Mrs. S. A. Dhawan and all HODs of other departments and all faculties of Electrical Engineering Department participated in tree plantation programme.



## Telecast of TRAI's Awareness Programme

First Semester students of Civil Engineering Department attended an online programme on "Consumer Awareness and Cyber Security" organized by Telecom Regulatory Authority of India (TRAI) on 10<sup>th</sup> of January, 2023. A total number of 45 students watched this online program.



## Health Awareness Programme by Women Development Cell

Women Development Cell of R. C. T. I. organized a 'Health Awareness Programme' for girl students of the institute on 10<sup>th</sup> January, 2023. A doctor from Urban Health Center conducted health checkup of female students and informed them about IFA tables

and provided tablet doze of 3 months. The aim of this programme was to take better care of health and be aware about any signs of future defect in the body. A total number of 50 female students from various departments participated in this programme.



## Expert Lecture by Faculty

Mr. C. R. Madhu, Lecturer in Textile Processing Technology Department delivered an expert lecture on "Advancement in Fabric Processing and Care" on 20<sup>th</sup> January, 2023 and another expert lecture on "Fiber Science and Everyday Life" on 6<sup>th</sup> November, 2023 at Computer Aided Costume Design and Dress Making Department, Government Girls Polytechnic, Ahmedabad. Mr. C. R. Madhu also delivered an expert lecture on "Introduction to Research Methodology" on 1<sup>st</sup> December, 2023 at Electrical Engineering Department, R. C. Technical Institute, Ahmedabad.





## Women Empowerment Seminar by Women Development Cell

Under the events of "AZADI KA AMRIT MAHOTSAV", Women Development Cell of R. C. Technical Institute organized an expert Lecture on "Women Empowerment" on 23<sup>rd</sup> January, 2023. The expert talk was delivered by Ms. Parulben Modi, Principal of Shree Sarswati Mandir High School, Maninagar. A total number of 34 female students from all departments and 11 Female staff members attended the programme. The programme aimed at drawing inspiration from renowned historical female characters to help facing challenges of modern world and achieve women empowerment.



## Finishing School Training Programme

Two batches of Finishing School Training Programme were organized during the year 2023 for the final year students of R. C. Technical Institute. It is a 4 weeks – 80 Hours training programme designed especially for final year students to polish their soft skill. The objective of the Finishing School Project is to provide training on life skills, employability skills, functional and spoken English skill enhancement to the students.

The first batch of Finishing School Training Programme was organized during the dates: 20/02/2023 to 17/03/2023 in which 34 students of 6<sup>th</sup> semester participated and were certified. Another batch of Finishing School Training Programme was organized during the dates: 03/10/2023 to 27/10/2023 in which 41 of 5<sup>th</sup> semester students participated and were certified.



## Celebration of International Women's Day

Women Development Cell of R.C.T.I. celebrated International Women's Day on 8<sup>th</sup> March, 2023 and cherished the vision of 'Women Led Development' envisaged by Honorable Prime Minister of Shree Narendrabhai Modi. The theme of 'invest in women: accelerate progress' was also cherished.



## Drugs free India Seminar

Faculty members and students of various departments of R. C. Technical Institute attended seminar on "Drugs free India", "Say No to Drugs", and "Green Gujarat Mission" organized at Science City, Ahmedabad on 15<sup>th</sup> March, 2023. Pledges were also taken by the students.





# Anveshan-2023

R. C. Technical Institute, Ahmedabad organized a tech fest named 'Anveshan, pratibha ki khoj' during 26-27 April, 2023 with the theme of G20. There were 28 competitions in this tech fest and more than 900 students participated in various competitions. The Inauguration Ceremony of 'Anveshan' was organized on 26<sup>th</sup> April, 2023 at Amenity Hall of the college. Dr. Sachin Parikh, Joint Director, Directorate of Technical Education Department graced the event by his presence as chief guest. Dr. P. A. Raval, Principal of R.C.T.I. and Patron of the event welcomed the chief guest, Heads of all Departments, faculty members and students. Dr. Sachin Parikh delivered an inspirational speech and motivated students to adopt innovative approaches to engineering and excel in research and development. He also visited Working Project Exhibition and praised the combination of technical skill and hard work put forth by the students in designing the projects. All the Departments organized various events at Department level and there were some central level events also. The events like Technical Quiz, Poster Presentation, Treasure Hunt, Circuit Building, CAD Modeling, Creative Texprint, and so on were organized at department level. The events like Working Project Competition, Robo War, General Quiz and Collage Making were organized at central level. The entire tech fest was coordinated by Gymkhana Committee. NSS volunteers and NCC cadets also contributed to make this event successful. All the Heads of Department and Faculty Members encouraged students and they also coordinated various competitions. The Prize Distribution Ceremony was organized on 27<sup>th</sup> April, 2023. Winners of all the events were given certificates and trophies. This tech fest served as an opportunity for the students to showcase their innovative skill and engineering knowledge. Not only the visitors but also the faculty members were impressed by students' talent and performances.





## Self Defense and Safety Programme by Women Development Cell

A "Self Defense and Safety Programme" was organized by Women Development Cell for the girl students and female faculties of the institute on 10<sup>th</sup> May, 2023 in collaboration with Wushu Champion and Martial Art Expert Amandeep Singh of the SHE Team of Sola High Court Police Station. The participants

learnt how to protect themselves in various critical situations like domestic violence, good and bad touch, sexual harassment, kidnapping, chain snatching, rape, etc. A total number of 50 girl students and female faculty members of the institute attended this programme.



## Diploma Admission Awareness Program

Diploma Admission Awareness Program was organized by Admission Committee at Kushabhau Thakre Auditorium Hall, CTM Cross Road, Ahmedabad on 10<sup>th</sup> June, 2023 to provide guidance about Diploma Education opportunities after S.S.C. Many students and their parents attended the program. The event was coordinated by Dr. P. D. Patel, Nodal Officer of A.C.P.D.C., R. C. Technical Institute, Ahmedabad.



## Tree Plantation

"Plant a tree and make the earth pollution free". The green campus of R. C. Technical Institute was made greener by tree plantation initiatives. Trees of Sitafal, Jambu, Mahudo Amla, Bamboo, Banyan tree, Neem Tree, were planted at various locations in the institute campus by Tree Plantation and Gardening Committee on 4<sup>th</sup> July, 2023. Approximately 50 trees were planted by faculty members and students of various departments.





## Orientation Program for First Semester Students

Orientation Program for the newly admitted first semester students was organized from 18/07/2023 to 02/08/2023 as suggested in the Model Curriculum of Diploma by AICTE. This orientation program was organized to build confidence among the new students and instill a sense of connection towards their institute. During this program, the students underwent a variety of activities which helped them to learn about the department/institute, university, library, hostel and other amenities in the campus. They also took part in physical activity, creative and literary activity, and attended lectures by eminent people, etc.



## Celebration of Independence Day

The Indian Independence Day was celebrated enthusiastically and with patriotic spirit at the campus of R. C. Technical Institute. On this glorious day faculty members, NCC cadets, students and guests from surrounding place attended the flag hoisting ceremony. The celebration started with flag hoisting by the principal of the institute, followed by the National Anthem and a parade by NCC students. The theme of Independence Day 2023 : " Nation first, Always First" was cherished. Students and faculty members sang patriotic song on this occasion.



## Live Telecast of Landing of Chandrayan – 3 Mission

All the staff members and students of all the semesters experienced the excitement of space exploration by watching the live coverage of Landing of Chandrayaan-3 mission on 23<sup>rd</sup> August, 2023. The live telecast of the event was made available on big screens at various rooms and laboratories of the institute.



## 'Meri Maati Mera Desh' Campaign

Faculty members and students of all the departments of the institute participated in the campaign 'Meri Maati Mera Desh, Mitti Ko Naman, Veeron Ka Vandan' on 9<sup>th</sup> August, 2023. It was a culminating event of 'Azadi Ka Amrit Mahotsav'. 'Meri Maati Mera Desh' envisioned a unified celebration of India's soil and valour, commemorating the nation's journey of freedom and progress by connecting with the land and honoring our heroes





## Visit of 'Pavilion of Summit for Success Exhibition'

Students and faculty members of the institute visited 'Pavilion of Summit for Success Exhibition' on 27<sup>th</sup> September, 2023. Students were captivated immersing themselves in a world of innovation and knowledge during this visit. They explored interactive displays and gained valuable insights into science, technology, and the path to success. This experience sparked their curiosity and fueled their aspirations to reach new heights in their academic journeys.



## Participation in Hackathon, 2023

10 students of Electrical Engineering Department participated in State Level Hackathon, 2023 Competition which was held at GTU, Chandkheda & Anant National University, Ahmedabad on 4<sup>th</sup> November, 2023. The students showcased innovative solutions and coding prowess, shaping the future of technology.



## Alumni Meet

Electrical Engineering Department organized 'Alumni Meet' on 6<sup>th</sup> November, 2023. Head of the Department and all the faculties of the department joined the alumni meet and interacted with alumni students. The alumni members showed their interest in mentoring students and support in various endeavours of the department.



## Visit of Startup Conclave 2023

Students and faculty members of the institute visited Exhibition Centre of Startup Conclave 2023 on 9<sup>th</sup> December, 2023. Exploring the Exhibition Centre at Startup Conclave 2023, students and faculty engaged with groundbreaking startups, gaining firsthand exposure to the dynamic landscape of emerging technologies and entrepreneurial endeavors.



## Product Development by Faculty

Mr. C. R. Madhu, Lecturer in Textile Processing Technology Department and a research scholar of M. S. University of Baroda developed an eco-friendly "smart polymer" that can be used in sanitary pad and baby diapers as a part of his research. This newly developed smart polymer helps to get rid of irritation, rashes and skin infection and it is also capable of maintaining 'ph' level of body.





### Expert Lectures Organized by Computer Engineering Department:



- The Computer Engineering Department organized an expert lecture on "Web Designing using BootStrap" on 25<sup>th</sup> January, 2023. Mr. Tirth Patel, Front-end Developer – "Waytowebe Pvt. Ltd." delivered the expert talk. A total of 53 students were benefited from this event.



- The Computer Engineering Department organized an expert lecture on "How to Crack Interview" by Mr. Bhargav Thaker, Regional Manager - Business Developer from "Study Square international Education Advisor". The programme was held on 15<sup>th</sup> February 2023 and a total of 50 students were benefited from this expert lecture.



- Cyber security focuses on protecting computer systems, networks, and data from theft, damage, or unauthorized access. The primary goal of cyber-security is to ensure the confidentiality, integrity, and availability of data. To encourage students in learning about cyber security, Computer Engineering Department organized an expert lecture on "Live Demonstration of Cyber Security" by Mr.

Aniket Patel, Assistant Professor, "Ganpat University" on 31<sup>st</sup> March 2023. A total of 65 students attended and took benefit from it.

- The Computer Engineering Department organized an expert lecture on "Ethical Hacking and Importance of Cyber Security" on 1<sup>st</sup> April 2023 in association with "Cyber Octet Pvt. Ltd." The expert talk was delivered by Mr. Falgun Rathod, Managing Director of the company. A total number of 104 students attended and got the benefit of the programme.



- The Computer Engineering Department organized an expert lecture on "HTML/CSS" on 29<sup>th</sup> September 2023 in association with "TOPS Technologies". The expert lecture was delivered by Mr. Rajesh Nagar, Senior Full Stack Developer of the organization. A total number of 36 students attended and got the benefit of the expert lecture.

### Workshop by Computer Engineering Department:

- The Computer Engineering Department organized a one day workshop on "Getting Started with Flutter" on 3<sup>rd</sup> March 2023. Students of 6<sup>th</sup> semester participated enthusiastically in the programme and learned about Flutter- application development. Mr. Chintan Nagrecha, Director of "Infolab IT Services Pvt. Ltd." delivered an expert talk in the workshop. A total number of 100 students participated in the workshop.





## Stakeholders Meeting by the Computer Engineering Department

The Computer Engineering Department organized a "Stakeholders Meet" on 7<sup>th</sup> October, 2023 in order to strengthen the relationship with stakeholders. A total number of 228 people attended this meet including 19 Faculty Members, 5 Industry Experts, 112 Student Representatives, 82 Parents, and 10 Alumni Representatives.



## Departmental Activities by Civil Engineering Department



### Expert Lectures Organized by Civil Engineering Department



number of 45 students attended the lecture and learnt about water supply sector.



- Civil Engineering Department organized an expert lecture on "Construction Project Management" for the students of 6<sup>th</sup> Semester on 9<sup>th</sup> May, 2023. The expert lecture was delivered by Dr. Shakeel Malek, I/C Principal of F. D. Mubin College. A total number of 25 students attended the expert lecture and learnt about softwares used in the construction project management.

- An expert lecture on 'REVIT' was organized by Civil Engineering Department for the students of 3<sup>rd</sup> semester. Mr. Jatinbhai Patel, Manager, Khodiyar CAD Center delivered an expert talk on REVIT software. A total number of 30 students attended the lecture.



- Civil Engineering Department organized and expert lecture on 'CAD' for the students of 3<sup>rd</sup> Semester on 1<sup>st</sup>, September, 2023. The lecture was delivered by Mr. Jatinbhai Patel, Manager – Khodiyar CAD Center. A total number of 30 students attended the expert lecture and learnt about the softwares used in Computer Aided Drafting.

### Swachchhata Abhiyan:



- An expert lecture on 'Water Supply Sector' was organized by Civil Engineering Department for the students of 3<sup>rd</sup> and 5<sup>th</sup> semester on 22<sup>nd</sup> September, 2023. The expert lecture was delivered by Mr. R. M. Solanki, Superintending Engineer, Gujarat Water Supply and Sewerage Board. A total

- Students of Civil Engineering Department carried out Swachchhata Abhiyan on 25<sup>th</sup> October, 2023 in the campus of R.C.T.I. The students voluntarily and enthusiastically collected waste and cleaned the green premises of R.C.T.I.



## Parents – Teachers Meeting:

Civil Engineering Department organized Parents Teachers Meetings twice in the year 2023. These meetings were organized under the guidance of Head of the Department Shree U. N. Pattani. Students, their parents and faculty members of Civil Engineering



Department and Applied Mechanics Department interacted with one another. The first Parents – Teachers Meeting was organized on 20<sup>th</sup> May, 2023 and another meeting was organized on 2<sup>nd</sup> September, 2023.



## Departmental Activities by Electrical Engineering Department

### Expert Lectures Organized by Electrical Engineering Department

- The Electrical Engineering Department organized an expert lecture on "Industrial Measurement" on 12<sup>th</sup> January, 2023 for the student of 3<sup>rd</sup> semester. Mr. N. B. Mehta, Lecturer in I.C. Department, G. P. Ahmedabad delivered the expert lecture. A total number of 35 students attended the lecture. The same lecture was once again organized on 10<sup>th</sup> October, 2023 in which 126 students remained present.
- An expert lecture on "DC Network Analysis Using Open Source Software" was organized by Electrical Engineering Department on 18<sup>th</sup> January, 2023 for the student of 1<sup>st</sup> semester. Mr. Vashim Ganchi, Lecturer in Electrical Engineering Department, G. P. Chhotaudepur delivered the expert talk. A total number of 90 students attended the lecture. The same lecture was once again organized on 21<sup>st</sup> October, 2023 in which 100 students remained present.
- An expert lecture on "Fundamentals of Electronics" was organized by Electrical Engineering Department on 20<sup>th</sup> January, 2023 for the students of 3<sup>rd</sup> semester. Mr. Nimish Suchak, Lecturer in Electrical Engineering Department, G. P. Jamnagar delivered the expert lecture. A total number of 60 students attended the lecture.
- An expert lecture on "Applications of Power Electronic for Electrical Machine Drives" was organized by Electrical Engineering Department for the students of 5<sup>th</sup> semester on 9<sup>th</sup> October, 2023. Dr. H. S. Pandya, Assistant Professor, Electrical Engineering Department, G. E. C. Modasa delivered the expert lecture. A total number of 31 students remained present.
- An expert lecture on "PE Applications of Renewable Energy Sources" was organized by Electrical Engineering Department for the students of 5<sup>th</sup> semester on 11<sup>th</sup> October, 2023. Dr. Manisha Shah, Assistant Professor-Electrical Department Nirma University Ahmedabad delivered the expert lecture. A total number of 39 students were present.
- An expert lecture on "Bullet Train and its Technology in India" was organized by Electrical Engineering Department for the students of 5<sup>th</sup> semester on 16<sup>th</sup> October, 2023. Mr. D. R. Mehta, Assistant Professor-Electrical Department Ganpat University delivered the expert lecture. A total number of 43 students attended the lecture.
- An expert lecture on "Industrial Automation PLC & SCADA" was organized by Electrical





Engineering Department for the students of 5<sup>th</sup> Semester on 20<sup>th</sup> and 21<sup>st</sup> October, 2023. Mr. Vishal Vadher & Mr. Rohit Sher, Assistant Manager – Training at Sofcon India Pvt. Ltd. Ahmedabad delivered the expert talk. A total number of 14 students attended the lecture.

- An expert lecture on “Transformer Differential Protection” was organized by Electrical Engineering Department for the students of 5<sup>th</sup> semester on 26<sup>th</sup> October, 2023. Dr. Vijay Makwana, Professor – Electrical Engineering Department at G.C.E.T., Anand delivered the expert lecture. A total number of 38 students attended the lecture.



- An expert lecture on “Startup and Entrepreneurship in the current era” was organized by Electrical Engineering Department for the students of 5<sup>th</sup> semester on 26<sup>th</sup> October, 2023. Prof. Manisha Makwana, Assistant Professor, Mechanical Engineering Department at A.D.I.T., Anand delivered the expert lecture. A total number of 38 students attended the lecture.



- An expert lecture on “Industrial Applications of DC Machines and Transformer” was organized by Electrical Engineering Department for the students of 3<sup>rd</sup> semester on 28<sup>th</sup> December, 2023. Prof. C. K. Bariya, Assistant Professor, Electrical Engineering Department at G. E. C. Modasa delivered the expert lecture. A total number of 41 students attended the lecture.

### **Workshop organized by Electrical Engineering Department:**

- Under ISTE Student Chapter, Electrical Department organized a five days workshop on “Arduino Uno Programming for Engineering Students” during 20/02/2023 and 24/02/2023. A total number of 30 students of final year participated in the workshop. Various

recognized industrial experts and academic experts came to deliver expert talk on the recent trend in this field.



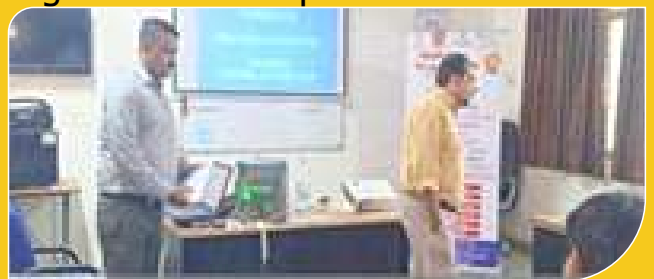
- All the final year students of Electrical Engineering Department participated in the workshop entitled “Embedded Systems controller (8051/AVR/PIC)” by Sofcon India Pvt. Ltd. on 11<sup>th</sup> April, 2023. Recent controller of embedded systems were discussed and demonstrated with real time data.



- All the final year students of Electrical Engineering Department participated in the workshop entitled “Industrial Automation Technology” by Sofcon India Pvt. Ltd. on 24<sup>th</sup> March, 2023. Recent control techniques of PLC and SCADA were discussed and demonstrated by real time data.



- Electrical Engineering Department organized a two days workshop on “Industrial Automation System” during 20-10-2023 to 21-10-2023 by Sofcon India Pvt. Ltd. Final year students participated in the workshop. Industrial experts delivered expert speech and demonstrated recent trends in Industrial Automation system along with hands on practice.





"Cyber Chetnya 2.0 Workshop" was organized on 27<sup>th</sup> October, 2023 for the students of final semester. The workshop empowered final year electrical students with essential cyber security skills, preparing them for the digital challenges ahead. It also provided a practical and comprehensive approach to cyber security, ensuring that final year electrical engineering students are well-equipped to secure their professional future.



### Online Training Attended by Students of Electrical Department

Energy Swaraj Foundation, in collaboration with AICTE, conducted an impactful Energy Literacy Training for 86 enthusiastic first-year students of RCTI's Electrical Engineering Department. This training aimed to equip

participants with a comprehensive understanding of energy sources, conservation techniques, and sustainable practices, fostering a generation of environmentally conscious individuals.

### Industry Person Meet

Electrical Engineering department organized Industry Person Meet on 17<sup>th</sup> October, 2023. Industry experts from Topline Switchgear Pvt. Ltd., Gandhinagar visited all the laboratories of Electrical Department and interacted with faculty and final year students. They also discussed about their products and their application.



### Parents Teacher Meeting – Electrical Department

A 'Parents Teacher Meeting' was organized on 21<sup>st</sup> April, 2023 by Electrical Engineering Department. All the 2<sup>nd</sup> and 4<sup>th</sup> Semester Student came with their Parents to attend meeting. Faculty members provided feedback and important guidelines were also shared with the parents. Parents were also informed about training, placement and extracurricular activities. Parents also interacted with the faculty members and visited the laboratory and other facilities of the college.



### Departmental Activities by ICT Department

#### Expert Lectures Organized by ICT Department

Information and Communication Technology (ICT) Department organized an expert lecture on "Python in Industry" by industry expert Mr. KunalKumar Sheth, Deputy Manager, BASF Chemical India Ltd., Mumbai on 27<sup>th</sup> June 2023. A total number of 27 students from ICT Department attended the expert lecture and acquired programming knowledge in industrial application.



#### Workshop on "Latest Technologies Used in Embedded System"

Information and Communication Technology Dept. organized one day workshop on "Latest Technologies Used in Embedded System" for first and second year students of ICT to enhance their skills in embedded systems for various applications. The workshop was conducted by Alphatech Automation, Ahmedabad on 3<sup>rd</sup> November 2023. A total number of 40 students attended workshop.





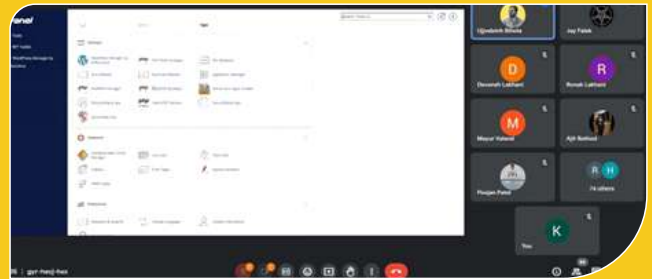
## Departmental Activities by Information Technology Department

### Expert Lectures Organized by Information Technology Department

- An expert lecture on "Software Engineering Life Cycle/SDLC Model using Live Project & Testing Tools" was organized by IT Department on 20<sup>th</sup> May, 2023. Mr. Ashvin Patel, Sr. Project Manager, Cybage Software Pvt. Ltd. delivered the expert lecture. The lecture aimed to provide students with expert insights into the software development process and the utilization of testing tools to ensure software quality. A total number of 107 students attended the lecture.

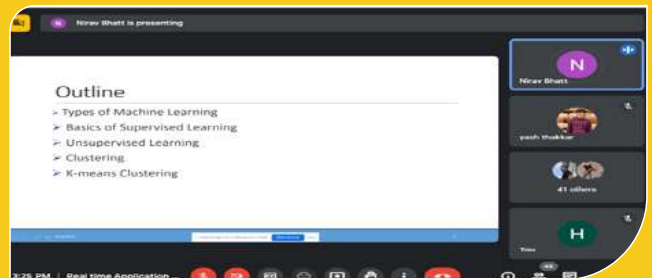


and FileZilla. The session was conducted via Google Meet.



- An online expert lecture on "Web Hosting with cPanel and FileZilla" was organized by IT Department on 18<sup>th</sup> May, 2023 for the students of 6<sup>th</sup> semester. Mr. Ujjwalsinh Bihola, CEO and Founder of Mantic Labs Web Solutions Pvt. Ltd. delivered the expert talk and provided practical knowledge and demonstration of web hosting using cPanel

- IT Department organized an online expert lecture on "Real Time Application of Unsupervised Learning" on 24<sup>th</sup> May, 2023 for the students of 4<sup>th</sup> semester. Dr. Nirav Bhatt, Associate Professor, CHARUSAT, Changa delivered the lecture. The session was conducted via Google Meet and aimed at providing knowledge of real time application of unsupervised learning.



## Departmental Activities by Mechanical Engineering Department

### Expert Lectures Organized by Mechanical Engineering Department

- An expert lecture on "Advance Welding" was organized on 20<sup>th</sup> October, 2023 for the student of 5<sup>th</sup> semester. Dr. Vishvesh Badheka, Professor in Mechanical Engineering Department, P.D.E.U., Gandhinagar delivered the expert lecture. A total number of 87 students attended the lecture.



- Mechanical Engineering Department organized an expert lecture on "Innovate to Impact" on 24<sup>th</sup> August, 2023 for the students of first semester. Ms. Archana Gondaliya from SSIP – GKS delivered the expert lecture. A total number of 17 students attended the lecture.
- Expert lecture on '2D Production Drawing, GD & T Using Auto-CAD, and Solidworks Workshop' were organized on 26<sup>th</sup> and 27<sup>th</sup> September, 2023 by Mr. Jatin Patel and Mr. Sachin Patel from Khodiyar CAD Center for the students of 3<sup>rd</sup> semester. A total number of 78 students attended the expert lecture.





- An expert lecture on “Innovative Startup for Engineers” was organized on 29<sup>th</sup> March, 2023 by Prof. Mrs. Manisha V. Makwana from A. D. Institute of Technology, V. V. Nagar for 92 students of 6<sup>th</sup> semester.



Engineering Department, P. D. E. U., Gandhinagar. A total number of 54 students attended the workshop.



- Two expert lectures on “Refrigeration and Air Conditioning Cooling Load Estimation” and “Energy Audit” were organized on 4<sup>th</sup> November, 2023. Mr. M. P. Jakhaniya, Retired Head of Mechanical Engineering Department, G. P. Kheda delivered the expert lectures. A total number of 110 students of 6<sup>th</sup> semester attended the lecture.



- A two days Workshop on “Computer Integrated Manufacturing and Solar System” was organized by Mechanical Engineering Department on 14<sup>th</sup> March, 2023 and 17<sup>th</sup> March, 2023 at Gujarat Power Engineering and Research Institute, Mehsana. Dr. Kapil Surani of G.P.E.R.I. conducted the workshop. A total number of 71 students from 6<sup>th</sup> semester attended the workshop



- Two more expert lectures were also organized on 4<sup>th</sup> November, 2023 on the topics of “Design of Guage” and “Design of Progressive Die” by Mr. H. C. Parmar, Head of Mechanical Engineering Department, G. P. Patan for the students of 6<sup>th</sup> semester.

- A demonstration of 'Fire Extinguisher Devices and Equipments' was organized by Mechanical Engineering Department for the students of first semester. The demonstration was performed by Station Fire Officer, Thaltej. A total number of 67 students attended the programme.
- A two days Workshop on “3D Printing” was organized by Mechanical Engineering Department on 14<sup>th</sup> and 15<sup>th</sup> September, 2023. A total number of 30 students attended the workshop.



### Workshops by Mechanical Engineering Department:

- A one day workshop on “Advanced Manufacturing Processes” was organized by Mechanical Engineering Department on 24<sup>th</sup> February, 2023 for students of 6<sup>th</sup> semester at P.D.E.U., Gandhinagar. The workshop was conducted by Prof. Mr. Vishvesh Badheka, Professor in Mechanical



### Computer Department



The Computer Engineering Department organized an industrial visit to National Forensic Science University - Gandhinagar on 10<sup>th</sup> March, 2023. A total of 22 students participated in the visit.

### Textile Processing Department

Textile Processing Technology Department organized industrial visit to Ankur Textile Mills on date: 21<sup>st</sup> January, 2023 and 30<sup>th</sup> September, 2023 for the student of 3<sup>rd</sup> and 5<sup>th</sup> Semester. A total number of 14 and 13 students joined these visits respectively.



Textile Processing Technology Department organized an industrial visit to Swan Energy Ltd. on 4<sup>th</sup> February, 2023 for the student of 6<sup>th</sup> Semester. A total number of 10 students joined this visit.

Textile Processing Technology Department organized an industrial visit to Hemline Textile Exports Pvt. Ltd. on 8<sup>th</sup> November, 2023 for the student of 3<sup>rd</sup> and 5<sup>th</sup> Semester. A total number of 8 students joined this visit.

### Civil Engineering Department

Civil Engineering Department organized a field visit for Levelling Project at Sola Bhagwat Campus on 30<sup>th</sup> March, 2023 for students of 4<sup>th</sup>

semester. A total number of 35 students participated in this visit. The visit was coordinated by the faculty members Mr. R. B. Modh and Mr. M. N. Thakkar.



A field visit to Tacheometric Survey Project at Sola Bhagwat Campus was organized for the students of 4<sup>th</sup> Semester on 21<sup>st</sup> April, 2023. A total number of 35 students participated in this visit and it was coordinated by faculty members Mr. R. B. Modh, Mr. S. N. Shah and Mr. R. B. Gohil.



A field visit to Green Building Site at Shapath-V, Ahmedabad was organized for the students of 6<sup>th</sup> semester on 8<sup>th</sup> May, 2023. A total number of 25 students joined this visit and learnt the difference between conventional building and green building. The visit was coordinated by faculty members Mr. S. N. Shah and Mr. R. B. Gohil.







Civil Engineering Department organized a visit to Meteorological Center, Ahmedabad on 26<sup>th</sup> October, 2023 for the students of 5<sup>th</sup> semester. The students learnt about parameters and gauges used in meteorology / weather like atmospheric pressure, temperature, humidity, etc. The visit was coordinated by faculty members Ms. N. J. Dave and Mr. R. B. Gohil.



An industrial visit to a Cement Plant at Empire Skypark was organized for the students of Civil Engineering Department on 27<sup>th</sup> October, 2023. The visit was coordinated by faculty members Ms. B. C. Shah and Ms. A. C. Shah.



Faculty Members and Students of Civil Engineering Department attended the Startup Conclave at Gandhinagar on 9<sup>th</sup> December, 2023. Government of Gujarat organized Startup Conclave to energize Gujarat's startup ecosystem, and to nurture innovation, entrepreneurship, and economic advancement.

## IT Department

The IT Department organized an industry visit to Fluxbyte Technologies Private Limited, Ahmedabad on 30<sup>th</sup> May, 2023. It was a highly informative and engaging experience for the students. This visit provided them comprehensive overview of web development processes, including front-end and back-end development, UI/UX design, and content management systems with various frameworks. The students learnt about the technologies and frameworks used in web development projects.



The students of IT Department attended "The Semicon India 2023 Expo", a pivotal event organized by the India Semiconductor Mission in collaboration with industry partners, unfolded at the Mahatma Mandir, Gandhinagar on 25<sup>th</sup> July, 2023. The expo aimed to pose India as a global hub for Semiconductor Design, Manufacturing, and Technology Development. More than 150 students of the IT Department attended the expo and immersed themselves in the world of semiconductor advancements.



## Printing Technology

An industrial visit to a Bhavik Publication was organized for the students of 2<sup>nd</sup> and 4<sup>th</sup> semester on 20<sup>th</sup> May, 2023. The visit was coordinated by faculty members Ms. V. B. Patel and Mr. S. D. Gohel





An industrial visit to a Colorflex Laminators was organized for the students of 3<sup>rd</sup> and 5<sup>th</sup> semester on 2<sup>nd</sup> September, 2023. The visit was coordinated by faculty members Mr. D. D. Raval and Mr. S. D. Gohel



An industrial visit to a Letra Graphix was organized for the students of 3<sup>rd</sup> and 5<sup>th</sup> semester on 15<sup>th</sup> September, 2023. The visit was coordinated by faculty members Mr. D. D. Raval and Mr. S. D. Gohel



**Mechanical Engineering Department**  
Mechanical Engineering Department organized an industrial visit to 'Gandhinagar Thermal Power Station', Gandhinagar on 3<sup>rd</sup> January, 2023. 34 students of 6<sup>th</sup> semester joined this visit.



Mechanical Engineering Department organized an industrial visit to 'Indo German Tool Room', GIDC Vatva on 7<sup>th</sup> July, 2023 for the students of 4<sup>th</sup> semester. A total number of 80 students joined this visit.



Mechanical Engineering Department organized an industrial visit to 'Manali Intricast', Memco on 29<sup>th</sup> and 30<sup>th</sup> September, 2023 for the students of 3<sup>rd</sup> semester. A total number of 80 students joined these visits.



Mechanical Engineering Department organized an industrial visit to 'Manali Intricast', Memco on 29<sup>th</sup> and 30<sup>th</sup> September, 2023 for the students of 3<sup>rd</sup> semester. A total number of 80 students joined these visits.







- Ms. Suman R. Tiwari, Lecturer in Computer Engineering Department published a research paper on "Challenges and Future Research Directions for Stream Clustering" in the 7<sup>th</sup> International Conference on Trends in Electronics and Informatics (ICOEI).
- Ms. Rutvi S. Sheth, Lecturer in Computer Engineering Department published her research paper on "Analyzing Online Purchase Behaviour through Machine Learning Approach based Ordering Mechanism" in the Fourteenth International Conference on Computing, Communication and Networking Technologies.
- Ms. Rajshree P. Vasava, Lecturer in Computer Engineering Department published her research paper on "Different Respiratory Lung Sounds Prediction Using Deep Learning" in 2023 4<sup>th</sup> International Conference on Electronics and Sustainable Communication Systems (ICESC).
- Mr. R. D. Joshi, I/c Head, Textile Processing Technology Department presented a research paper entitled "Eco-friendly Approach for Combined Bio-Scouring & Bio-Polishing leading to Sustainable Solution for Pretreatment of Cotton" in the International Conference on Recent Advances in Applied Sciences and Engineering (RAISE 2023) in April, 2023.
- Mrs. P. A. Prajapati, Lecturer in Textile Processing Technology Department presented a research paper entitled "Antimicrobial analysis of Andrographis Paniculata on Cotton Fabric" in the International Conference on "INDIA@100: building 'Atmanirbhar' Bharat from Farm to Fashion to Future" in February, 2023.
- Mrs. P. A. Prajapati, Lecturer in Textile Processing Technology Department also presented a research paper on "Sustainable Curative Textiles- Exploring the Potential of Plant Extract on Textile for Healing and Well-Being" in the International Conference on Recent Advances in Applied Sciences and Engineering (RAISE 2023) in April, 2023.
- Mr. C. R. Madhu, Lecturer in Textile Processing Technology Department presented a research paper entitled "Synthesis and Evaluation of AA, ACN-Based SAP and its Application for Hygiene Textile" in the International Conference "INDIA@100: building 'Atmanirbhar' Bharat from Farm to Fashion to Future" in February, 2023.
- Mr. C. R. Madhu, Lecturer in Textile Processing Technology Department also presented research paper on "Application of Microencapsulation in Textile Wet Processing: A Review" in the National Conference on Condensed Matter Physics and Material Science (CMPMS-2023) in March, 2023.
- Mr. C. R. Madhu also presented a research paper entitled "Reducing the Effluent Load by Coating Hygiene Textile with Microencapsulated AA, ACN Based SAP" in the International Conference on Advances in Water Treatment and Management (ICAWTM-23) in March, 2023. He received 'Best Presentation Award' for his paper presentation.
- Mr. C. R. Madhu, Lecturer in Textile Processing Technology Department also presented his another research paper on "Synthesis and Evaluation of MAA, ACR, AN-Based SAP for Application for Hygiene Textile" in the International Conference on Recent Advances in Applied Sciences and Engineering (RAISE 2023) in April, 2023.
- Ms. R D Pachauri, Lecturer in Textile Processing Technology Department presented a research paper on "Antimicrobial Activity of Cotton fabrics with Natural Biocide cross-linked with various eco-friendly cross-linking agents" in the International Conference on Recent Advances in Applied Sciences and Engineering (RAISE 2023) in April, 2023.



## Staff Achievements

- Dr. Krishna S. Patel, Lecturer in Electrical Department worked as Paper Reviewer in International Journal - Electrical Engineering, Springer, SCI Index, Country: Germany, H index – 39. (Total 4 Papers were reviewed in the year 2023)
- Mr. Nilay A. Patel, Lecturer in Computer Engineering Department along with Mrs. Naru Divya Jyothi, Mr. Aaditya Jain and Mr. Debabarata Maity published a book on "Internet-of-Things (IOT) Systems: Architectures, Algorithms, Methodologies" in Prime International Publication (PIP).
- Mr. C. R. Madhu published a novel titled "Ladvaiya" in Gujarati language. The novel depicts the story of conspiracies which were created to keep the mysteries of Egypt intact. The novel brings together a voyage of narrative passing through Berlin, London, New York, California, Boston, Cairo, Somnath and ends in Delhi.
- Mr. C. R. Madhu also delivered an expert review on Amish Tripathi's book "Raavan: Enemy of Aryavarta" in "Rubroo, the Book Talk Show" programme organized by 'Flashback Storizes' on 17<sup>th</sup> April, 2023 at Ahmedabad.
- Mrs. Deshmukh Hetal Prakashbhai, Lecturer in Mechanical Engineering completed Yog Training Program of 100 Hours organized by Gujarat State Yoga Board. She also completed Assistant Yoga Teacher Training organized by Patanjali Yogpeeth.
- Mr. Pranav H. Patel & Mr. Mehul N. Patel, Lecturers in Mechanical Engineering participated in All India Civil Services Lawn Tennis Tournament (Men–Women) 23-24.
- Ms. Deepika M. Harwani, Lecturer in Mechanical Engineering completed her Ph.D. from P.D.E.U., Gandhinagar in June, 2023. Her research topic was "Effect of Friction Stir Processing on Superplasticity of AZ31 Magnesium Alloy".
- Mr. Malav D. Shah, Lecturer in Mechanical Engineering completed M. E. in 'I.C. Engine and Automobile' in July, 2023 and also received 'Gold Medal'. The title of his dissertation was "Effect Of Injection Pressure Variation On Performance And Emission Characteristics Of Ci Engine Fuelled With Dual Biofuel Of Neem And Jatropha."
- Mr. Lakshman Nibel, Lecturer in Mechanical Engineering completed M. E. in 'I.C. Engine and Automobile' in July, 2023. The title of his dissertation was "Performance and emission analysis of a single cylinder diesel engine with waste cooking oil and mahua oil with Al<sub>2</sub>O<sub>3</sub> additives using Response surface methodology"
- Mrs. Nidhi V. Shah, Lecturer in Mechanical Engineering completed M. E. in 'I.C. Engine and Automobile' in July, 2023. The title of her dissertation was "A Study on a Multi Criteria Decision Making Model for the selection of Suitable Alternate Fuel with Blends in C.I Engine".
- Mr. Chirag H. Patel, Lecturer in Mechanical Engineering completed M. E. in 'I.C. Engine and Automobile' in July, 2023. The title of his dissertation was "Optimization of EDM process parameters while machining INCONEL 718 using cryogenically treated molybdenum as tool material".

## Students' Achievements

- Vivek Rajesh Pawar, a 6<sup>th</sup> semester student of Computer Engineering Department entered in the TOP 70 world photographers and Top 10 Ahmedabad photographers in the category of "Mobile photography: black&white" by 35 Awards, Annual International Photography Awards.







- Harshit J. Rajput, Mankumar G. Bheda, Nischal R. Dave and Samarth J. Solanki, 6<sup>th</sup> semester students of Computer Engineering Department under the mentorship of mentor Mr. Sachin D. Shah secured 1<sup>st</sup> Prize and received 50000 Rs. Prize money in Grand Finale of Azadi Ka Amrit Mahotsav Hackathon-2022 during 10<sup>th</sup> -11<sup>th</sup> February 2023.



- Dhruvil Adroja, a 2<sup>nd</sup> semester student of Computer Engineering Department received Runner up Trophy in IBFF Men's National Blind Football Tournament.



- Harshit Upadhyay, a 4<sup>th</sup> semester student of Computer Engineering Department secured 3<sup>rd</sup> position in Junior National Soft Tennis Championship (under-18) and won a bronze Medal at Vijaywada, Andhra Pradesh.
- Shubh Khanna, Isha Pansara and Srushti Patel, 6<sup>th</sup> semester students of Electrical

Department participated in Elocution Competition on "Solution of Prevailing Problems in Gandhian Thoughts" organized by Yuva Vikas Trust, Ahmedabad.

- Students of R. C. T. I. participated in GTU's Inter-zone Cricket Tournament 'Spirit', 2023. The Cricket team of R. C.T.I. ranked in Top Two Finalist Teams in Ahmedabad Zone. This was the first time a cricket team from R. C. T. I. participated in Inter-zone tournament.



- Six girl students of IT Department – Krusha Patel, Pushti Shah, Harshna Makwana, Mahek Barot, Rajvi Panchal and Himali Nagar participated and won Girls' Volleyball Competition organized by Gujarat Technological University at SVIT, Vasad on 18<sup>th</sup> April, 2023.



- Heta Pandya, a first semester student of IT Department, achieved 2<sup>nd</sup> Rank in the State Level Elocution Competition organized under 'NSS Day Celebration' at Sardar Patel University, Anand, Gujarat in September, 2023.





32 Students of R. C. T. I. participated in the Conference on "Innovate For Impact" jointly organized by Department of Education, Govt. of Gujarat, UNICEF, and Ahmedabad Management Association (AMA) on 24<sup>th</sup> August, 2023. They were accompanied by faculty members Mr. G. R. Khunt, Lecturer in Mechanical Engineering and Mr. Nitin Aadhav, Lecturer in Electrical Engineering.



### Institute's Toppers

Sr.	Enrollment	Name of Candidates	CPI	Programme
1	206400306056	Khatri Meet M.	9.79	Civil Engineering
2	206400307194	Gajjar Dhruvi P.	9.96	Computer Engineering
3	206400309078	Raval Yash	9.29	Electrical Engineering
4	206400316073	Joshi Nishtha V.	9.88	Information Technology
5	206400319043	Patel Arpit J.	9.81	Mechanical Engineering
6	206400328003	Tiwari Anujkumar S.	8.64	Textile Processing Tech.
7	206400329005	Joshi Angana S.	8.92	Textile Mfg. Technology
8	206400358006	Khudadiya Kirtan N.	8.86	Printing Technology

### Training and Placement Cell Activities

Training and Placement cell of R. C. Technical Institute acts as an interface between the students and the recruiters and works towards placement of final year students. The Training and Placement Cell also functions actively to provide internship opportunities and for grooming the students of final year.

R. C. Technical Institute, being one of the most renowned institutes of Diploma Engineering Program in Gujarat always seeks to create linkages with industries in the surrounding area for the benefits of the students. This year twenty two different companies co-ordinated with the institute for campus recruitment. This include famous companies like A M Designs Pvt Ltd.,

AMNS India, AmulFed, Aqua Machineries Pvt. Ltd., Cityzen Industries Pvt. Ltd., Marko Steam Jet Pvt. Ltd., Reliance Industries Ltd., L & T Hydrocarbon, Schaeffler India Ltd., SKF Engg & Lubrication Ind Pvt. Ltd., Tata Motors Electric Vehicles, The Anup Engineering Ltd., Sterling Abrasives Ltd., NCQC - National Centre for Quality Calibration, Tata Passenger Electric Mobility, Torrent Power, HKRP Innovation Ltd., TDGS, Uflex Limited, Letra Graphics, Arvind Limited, etc. A total of 95 students from all branches were recruited by these companies. Total placement of the students including higher study was 86.68 %. Five students of the institute become entrepreneurs.



