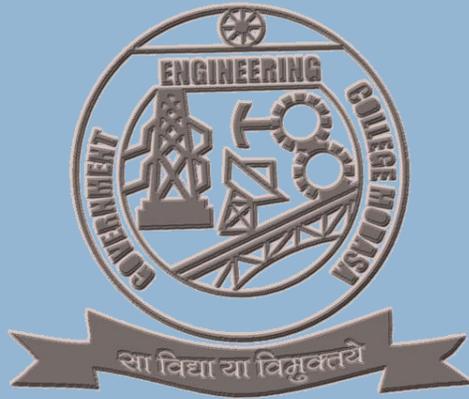


GOVERNMENT ENGINEERING COLLEGE, MODASA

Newsletter

July – December 2023

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GECM E-NEWS

COLLEGE SAGA

GTU Robotics Club Orientation and Awareness Seminar

The seminar was organized on 21/09/2023. The student volunteers from GTU Robotics Club had delivered a seminar on introduction to the Robotics club. The seminar was unique as it was organized for the students of GECM by the student volunteers of GTU to enrich the ecosystem of robotics. This informative session motivated the students to be a part of such events. They inquired about the robotics workshop and were eager to enroll in it. The program was coordinated by Prof. M. M. Madhikar, Prof. M. J. Vanjara and Prof. P. M. Mistri. More than 80 students have actively participated in the seminar.



SSIP CELL

SSIP CELL Awareness session on World Entrepreneurs' Day

On 21/08/2023, Prof. S. S. Singh addressed the students of first year of the institute at QEEE Hall, Main Building, regarding opportunities provided by SSIP Cell at GECM. All the past activities and students' achievements were discussed. Students interacted regarding opportunities provided by the Cell under SSIP 2.0 for nurturing innovative ideas. They were briefed about the procedure to apply for the grants at college level.



AutoCAD SolidWorks Ansys and VR Technical Session on Design Software

This seminar was organized on 15/09/2023. Mr. Nimesh Patel, Director of Khodiyar Cad Centre, Ahmedabad had delivered the session about SolidWorks. The program was coordinated by Prof. P. M. Mistri and Prof. H. I. Chaudhari. More than 60 students actively participated in the program and were able to clear their doubts about the software.



COLLEGE SAGA

From Idea to protection Mastering the Patent filing Journey

A seminar on “From Idea to Protection Mastering the Patent Filing Journey” was organized on 23/08/2023 under G20 & Y20. Dr. Khusbu Patel of Analytical application scientist, Inventa systems, Ahmedabad had delivered an interesting lecture. The session provided valuable insights about Patent Filing Journey. The program was coordinated by Prof. P. M. Mistri and Prof H. I. Chaudhari to spread awareness about significance of patent filing, the process of filing and how it protects rights on original idea.



RUSA CELL

Industrial training at the International Automobile Centre of Excellence - I

Total 93 students underwent industrial training at the International Automobile Centre of Excellence (iACE) at Gandhinagar. The training was related to electric vehicle, hybrid vehicle and autotronics from 6/11/2023 to 10/11/2023. The cost of the training amounted to Rs. 6,97,500/-, and it was paid by the Education Department.

Industrial training at the International Automobile Centre of Excellence - II

Total 25 students attended industrial training at the International Automobile Centre of Excellence (iACE) at Gandhinagar. The training covered plastic technology, welding technology and autotronics during 25/09/2023 to 29/09/2023. The cost of the training amounted to Rs. 1,87,500/-, which was paid by the Education Department.

Gymkhana

Chess Event Inter Zonal GTU Level

The GECM chess team has secured runners up position at the Zone level competition held in August 2023. Patel Rajkumar (CE), Divyesh Thakur (CE), Panchal Jignesh (IT) of semester 5 and Solanki Jayvirsinh (EC), Singh Vivekkumar (EC) of semester 7 participated and won in this event.



COLLEGE SAGA

Karate Inter Zonal GTU Level

The team GECM participated at inter zonal level at Sigma institute on 1/09/2023 where in Omshree Prakash Chaudhary (IT) of semester 7 represented the institute.



Kabaddi Inter Zonal

The following team members of GECM has performed exceptionally well in kabaddi inter zone and zonal level. Mishra Prashant (3-CE) (selected at AIU nationals), Goswami Paavan (5-EC), Ashish Rajput (5-Mech), Rahul Singh (5-Mech), Jayesh Parmar (3-EC), Roshan Bhadoriya (3-IT), Mitesh Dodiya (5-Civil), Bhavin Ukani (5-Civil), Nikul Patel (5-Mech), Paliwal Manish (5-Mech), Patel Varun (5-Auto) and Vaghasiya Sanket (7-Mech) were applauded for their performance.

Weight Lifting Inter Zonal at GTU

GECM has outperformed all the participants at different levels. Vaghasiya Sanket (Mech) has been the flag bearer in the events. He secured first position in every event as follows:

1. First Prize in Weightlifting at Interzonal Level at A D Patel institute of technology, Vallabh Vidyanagar.

2. First Prize in Power Lifting at Interzonal Level at A D Patel institute of technology, Vallabh Vidyanagar.
3. First Prize in Men's best physique at Interzonal Level at Naran Lala college Navsari



Badminton Inter Zonal GTU Level

The team GECM as usual maintained its winning streak in badminton. The countless hours of practice resulted in exceptional results at GTU Zonal level. List of winners at Zonal Badminton Tournament conducted at GPERI Mehsana is as follows:

- Mishra Nikhil (7-EC)
- Vivek kumar singh (7-EC)

COLLEGE SAGA

- Samarth Raval (7-CE)
- Gautam Bramhankar (5-EL)
- Akash Kapoor (7-CE)
- Shamual Bolcani (5-CE)

Runner's up at Zonal Badminton Tournament conducted at GPERI Mehsana is as follows:

- Dodiya Devangi (3-CE)
- Bodalwala Keshu (7-IT)
- Jenshi Shingala (5-Mech)
- Aacharya Freya (5-CE)
- Shreya Patel (7-IT)



Kho-Kho GTU

The team GECM has spent several hours in practicing the khokho games, which actually transpired in exceptional results at the GTU level. Team Kho Kho Girls Tournament held at Sigma Group of Institute Vadodara is as follows:

- Shekha Riya (7-IT)
- Dodiya Devangi (3-CE)
- Vanakar Bharagavi (3-CE)
- Valand Dhara (5-IT)
- Patel Aayushi (5-IT)
- Patel Hemangee (5-IT)
- Patel Heni J (3-IT)

- Patel Heni N (3-IT)
- Patel Feni (3-IT)
- Patel Nehi (3-IT)
- Jogani Ridhdhi (3-IT)
- Delvadiya Urvisha (5-CE)
- Patel Shivani (3-CE)

Shekha Riya and Dodiya Devangi are selected for A.I.U. Tournament.



Volleyball Zonal Level at GTU

The team GECM has secured runners up position at Zonal level tournament held at GPERI Mehsana.

- Dhariwal Ankush (3-IT)
- Vanzara Shubham (3-IT)
- Patel Rajkumar (5-CE)
- Raval Samarth (7-CE)
- Upadhyay Manush (5-Auto)
- Dodiya Mitesh (5-Civil)
- Gamit Nirav (5-IT)
- Patel Gautam (5-CE)
- Chaudhari Ronak (5-CE)

COLLEGE SAGA

- Shukla Pranjul (3-IT)
- Yadav Kuldeep (3-IT)
- Pradhan Harikrushana (3-IT).



Football Zonal Level GTU

The GECM team has performed well earning the praise at zonal level tournament. Sanjeev Kumar (1-EC) has been selected for A.I.U. Football.



Cricket GTU Level

The team GECM has been a regular star performer at matches in cricket tournament of GTU and couple of players from the college team has been shortlisted for A.I.U. cricket.



Independence Day Celebration

To instill the feeling of nationalism amongst the young minds, every year we celebrate our Independence Day with pride on 15th August.



Tree Plantation Drive

The trees were planted across the campus, fostering biodiversity, and creating a healthier environment for generations to come. The entire college community participated in a collective effort towards environmental conservation and sustainability, while instilling a sense of environmental stewardship among all stakeholders. To Be a part of our college-wide tree

COLLEGE SAGA

plantation campaign we came together to nurture our surroundings and create a greener tomorrow.



Hostel

Gapati Mahotsav

The hostel students celebrated Ganesh Mahotsav with devotion and rituals. Students of boys' hostel and girls hostel planned and arranged for the entire festival in September. They maintained cleanliness along with decoration, procession, daily aarti and distribution of prasad systematically.



Janmasthan Mahotsav

The hostel celebration has its own charm. Life is full of activities throughout the year. Jansmasthan celebration in August is one such event where entire college is eager to celebrate.

The dahi handi ceremony and garba elevate the festive moods among the students.



Ek Tarikh Ek Ghanta

Under the "Ek tarikh Ek Ghnata" campaign a cleanliness drive was observed in the campus wherein various programs were executed across the campus to show commitment towards the initiative. The events were organized during August 2023 on the campus.

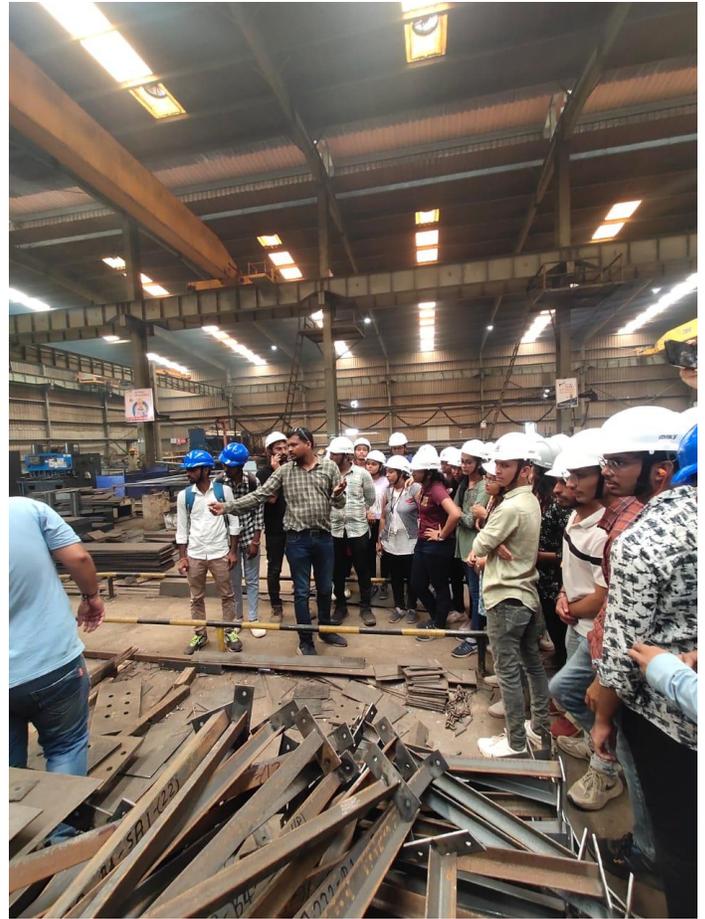


DEPARTMENT SPOTLIGHT

Applied Mechanics & Civil Engineering Department

Technical Visit of PEB Manufacturing plant Arcedges Building India LLP

On 19/08/2023, the Applied Mechanics Department organized a technical visit to the Pre-Engineered Building (PEB) manufacturing plant of Arcedges Building India LLP. The visit aimed to provide students with practical insights into PEB manufacturing processes and enhance their understanding of structural engineering applications in real-world settings. The primary objective of the technical visit was to familiarize students with PEB manufacturing operations and technologies. By observing firsthand, the processes involved in PEB fabrication, students were expected to augment their theoretical knowledge with practical experience, thereby strengthening their understanding of applied mechanics and structural engineering principles. A total of 70 students from various academic years participated in the technical visit, accompanied by faculty members. Prof. A. J. Patel served as the coordinator for the visit, overseeing the arrangements and facilitating interactions between students and industry professionals. We extend our sincere gratitude to Arcedges Building India LLP for graciously hosting the technical visit and for their insightful presentations and demonstrations.



Workshop on concrete mix design

On 02/09/ 2023, Applied Mechanics Department organized a one-day workshop on concrete mix design in collaboration with Ambuja Cement. The workshop was specifically tailored for civil engineering students, aiming to provide them with comprehensive knowledge and practical insights into the process of designing concrete mixes for various construction applications. The workshop began with an introduction to the materials used in concrete. Mr. Hitesh Barot explained the properties of cement, fine aggregate, coarse aggregate, and water. He also discussed the importance of using quality materials in concrete mix design.

DEPARTMENT SPOTLIGHT

The next session was on sieve analysis of fine and coarse aggregate. Mr. Talib Kathiriya explained the purpose of sieve analysis and how to conduct it.

The final session was on concrete mix design using IS code and Ambuja method. Mr. Barot explained the steps involved in concrete mix design, such as selecting the materials, calculating the proportions, and testing the mix. He also discussed the advantages of the IS code and Ambuja method. The workshop was coordinated by Prof. A. J. Patel and Prof. B. A. Vyas. It was a valuable learning experience for the students. They learned about the different materials used in concrete, how to design concrete mix, and how to conduct sieve analysis. They also got to interact with experienced engineers and learn from their insights.



A session on Use of Excel in the field of design of structures

On 5/09/2023, an informative session on the use of Microsoft Excel in the field of structural design was conducted by Prof. A. J. Patel. The session aimed to familiarize participants with the practical applications of Excel and its macros in structural

engineering, particularly in the analysis and design of various structural components.



Quiz competition on concrete technology

A Quiz competition was arranged on concrete mix design to verify the involvement of students on 5/09/2023. Five winners were declared and token cash prize was given to Tiwari Sandeep Rajnath (1st), Patel Pinakinkumar Vinodbhai (1st), Chauhan Ravindrasinh Kanubhai (2nd), Chauhan Rahulsinh Khodsinh (3rd), Limbachiya Prathamkumar Satyamkumar (3rd).



DEPARTMENT SPOTLIGHT

Mundra port visit

On 2nd and 3rd November 2023, a site visit to Mundra Port was organized by Civil Engineering Department. The visit aimed to provide students with practical exposure to port infrastructure and operations, as well as to enhance their understanding of coastal engineering principles and maritime structures. A total of 53 students participated in the site visit, accompanied by faculty coordinators Prof. Dron Chaudhary, Prof. Jay Pandya, and Prof. M A Fareediwala. Through visual exposure to the port and interactions with industry professionals, students gained insights into coastal engineering principles and port management practices, enhancing their academic learning and career prospects in civil engineering.

L&T visit

On 30/09/2023, a visit to the L&T Skill Center in Ahmedabad was conducted by Applied Mechanics Department for civil engineering students. The visit aimed to provide students with practical exposure to reinforcement detailing techniques used in various structural applications. Prof. A. J. Patel served as the faculty coordinator for the visit. By observing and understanding the detailing techniques employed at the center, students enhanced their knowledge and skills in structural design and construction, preparing them for future roles in the civil engineering industry.



PSP visit

On 30/09/2023, around 70 students visited the PSP Precast Manufacturing Plant in Ahmedabad. It was organized by the Applied Mechanics Department and coordinated by Dr. A. J. Patel. The visit aimed to provide students with practical exposure to precast construction techniques. During the visit, students observed various precast elements including beams, columns, walls, slabs, retaining walls, and culverts. They learned about the design, fabrication, and finishing processes involved in producing precast elements. Practical demonstrations showcased the manufacturing techniques and equipment used in producing precast elements.



Expert talk on Application of Autocad and Revit by Khodiyar Cad center

To commemorate Engineers' day on 15/09/2023, an informative session facilitated by Khodiyar CAD Center was organized in QEEE hall. It was coordinated by Prof. A.J. Patel and Prof. B. A. Vyas. The session aimed to familiarize civil engineering students with AutoCAD and Revit, essential software in the field. Khodiyar CAD Center introduced their expertise, emphasizing practical applications. The session covered the significance

DEPARTMENT SPOTLIGHT

of AutoCAD in drafting and designing civil engineering projects, followed by an overview of Revit's capabilities in BIM. A live demonstration provided hands-on experience, and a Q&A session addressed students' queries. The event proved beneficial, equipping students with valuable skills for their academic and professional journey.



New India Vibrant Hackathon 2023

Two teams of 5th semester of civil engineering participated in Hackathon 2023 on 4/11/2023. First team worked on the problem topic faced at college by their classmate related to "student college transfer" and received widespread appreciation by the judges. The 2nd group addressed the issue related to "wifi based Mobile attendance system".



Electronics & Communication Department

Tree Plantation Drive

Active participation from faculty, staff, and students contributes to a greener campus environment that encourages and instills a sense of responsibility towards nature. Plantation drive was conducted on 26/08/2023.



Summer Internship Training

In collaboration with industry Leon's integration, a 15 days training program as per GTU guidelines was conducted in July 2023 for 7th semester students. Faculties Prof. P. V. Patel and Prof. B. A. Brahmbhatt mentored and trained them to make them industry ready for further internship in industry in semester 8. This work was evaluated by industry experts and certificate was awarded. The entire training was carried out under aegis of GOG.

DEPARTMENT SPOTLIGHT



Electrical Engineering Department

GEM Portal awareness

An awareness program was organized on 8/08/2023, at Dr. Abdul Kalam seminar hall, EED building, wherein, Prof. M. J. Patel demonstrated and discussed purchase process to be followed on the GEM portal. All faculty members from the department found this session very informative and useful for the GEM purchase.



Pre Hackthon screening

This event was organized on 27/09/2023 at Dr. Kalam Hall, EED. Prof. H. S. Pandya coordinated this screening round for National level hackathon participation, under SSIP Cell and under G20 activities. 35 students participated with great enthusiasm and 5 teams were shortlisted. Prof. V. J. Upadhyay and Prof. U. L. Makwana evaluated the team presentation and appropriate remarks were given for further improvement.



DEPARTMENT SPOTLIGHT

POC screening

Proof of concepts screening round was organized on 29/09/2023 at Dr. Kalam Hall under SSIP Cell and G20 activities. Prof. H. S. Pandya coordinated the event. The evaluation was done by Prof. S. S. Singh, Prof. V. J. Upadhyay and Prof. K. K. Bhatt by interactive conversation. Total 20 students had participated from which four teams were selected for SSIP 2.0 grant.



Vibrant Gujarat and Viksit Bharat Awareness

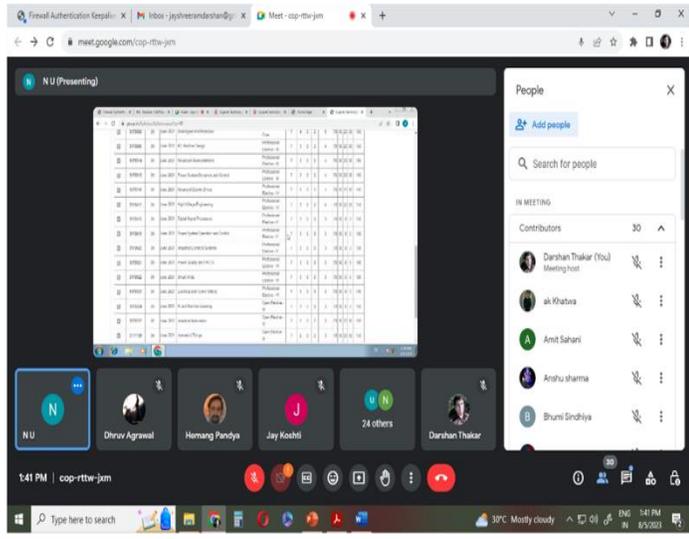
This event was organized and coordinated by Prof. N. V. Upadhyay on 28/12/2023 at Dr. Kalam Hall, under SSIP Cell. Total 42 students have participated, they were informed about different events to be held and procedure to apply for the events under vibrant Gujarat 2024. All the students present have applied to Viksit Bharat and other events in their interest areas.



Introduction to Elective Subjects

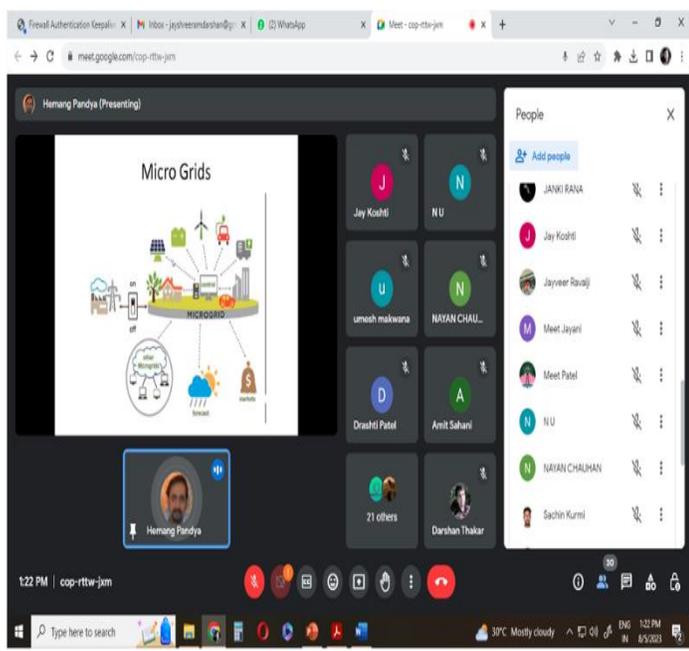
An online session was organized on 5/08/2023. Prof. N. V. Upadhyay and Prof. T. A. Chaoudhary coordinated the event. Faculty members/ subject coordinators explained about respective subject details and their course content. They also informed about how the subjects will contribute to develop a particular skill or enhance their employability. Total 30 students had actively participated and gained insights.

DEPARTMENT SPOTLIGHT



Placement Opportunity in Smart Grid

Prof. H. S. Pandya and Prof. D. U. Thakar coordinated this online webinar session on 5/08/2023 under G20. The students were introduced to the various trends and technologies that are being developed in smart power grid ecosystem. 30 students and few faculty members participated.



Summer Internship Expo

An internship expo for 7th semester was organized on 22/08/2023 in Dr. Kalam Hall under G20. It was coordinated by Prof. D. U. Thakar. These enriching interactive sessions were conducted by Prof. V. J. Upadhyay and Prof. D. U. Thakar to explore internship experience gained by students.



Effective Technical Documentation and Presentation

To create awareness among 7th semester students department had organized an expert talk on 21/08/2023. The key speaker Prof. D. U. Thakar elaborated on report writing, different mistakes made in presentation, plagiarism caught in the documentation, and how to avoid them. At the end of the session, the doubts regarding the above were cleared. By attending this informative session, 36 students who participated were greatly benefited. It enhanced their clarity and knowledge in report writing.

DEPARTMENT SPOTLIGHT



Visit to Veer Electronics

With a view to provide industrial exposure, a visit to Veer Electronics was organized on 17/09/2023. 21 students were accompanied by Prof. V. J. Upadhyay and Prof. N. V. Upadhyay. They have seen industrial processes and production line of electronics devices and embedded systems. At the end, detailed interaction with the industrial personnel made the visit fruitful in connecting dots between classroom teaching and real-world engineering.



Visit to iACE

As part of regular co-curricular activity to enhance teaching learning process, a visit was organized by Prof. U. L. Makwana to iACE on 17/09/2023. The visit provided exposure to 21 students about industrial processes and production line followed at the industry. They also had interactive conversation with the industry representative.



DEPARTMENT SPOTLIGHT

Expert Lecture on Application of PLC and SCADA

Shri Praful Neve, Director, Prolific Systems and Technology, Ahmedabad, and his team delivered an interactive expert lecture on 22/09/2024. This talk was followed by a workshop to provide hands-on-skill to the 27 participating students. This experience was found enriching the teaching-learning in the field of industrial instrumentation and control.



Teacher's day Celebration

This celebration was organized by the students on 5/09/2023. It had various fun games for students as well as faculty members and it culminated by the Garba event. At the end of day, student representatives presented token of appreciation in the form of mementos to their beloved faculty members. The event was enjoyed fully by all the participating students and faculty members. Also, the activities planned by students were thoroughly fruitful in enhancing student-faculty and inter faculty coordination and bond.



Computer Engineering & Information Technology Department

GDSC Info Session

To create awareness of GDSC (Google Developer Student Clubs) many activities are running at our institute. The team members here teach each other about Machine Learning, Android app development, Google Cloud, Flutter, and other exciting technologies. The club also hosts events, inviting guest speakers, and organizing hackathons. Around 170 students of various branches have attended the session organized on 24/08/2023.

DEPARTMENT SPOTLIGHT



Happiness Program

Namita Kaushik, Software Engineer and a senior “Art of Living” faculty was invited as an expert for this session. Objective of this event was to enable students to reflect on the relationship between their feelings, thoughts, behavior and it’s impact on self, family, society and the natural environment around them. Around 80 students of CE/IT branch have participated and benefited from this session on 10/08/2023.



Industrial Visit at Adani Foundation

Faculty members Prof. A. A. Prajapati Prof. P. S. Modi, Prof. V. A. Rathod, Prof. N. D. Goriya, Prof. M. V. Chauhan and 91 students of CE/IT department have visited to Adani Port, Adani Power, and Adani Wilmar at Mundra on 22/08/2023 under project Udaan by Adani Foundation. Practical knowledge about the working of the plant was observed and students had active interaction with industry person.



Startup-Conclave Exhibition 2023 at Gandhinagar

Under the guidance of Government of Gujarat, 53 students of CE/IT, Mechanical, EC branch and Prof. Prof. N.D. Goriya have visited conclave event at Gandhinagar on 08/12/2023. Students have explored about the variety of technologies, projects & different startup programs. It was a unique experience that the students will remember and cherish.

DEPARTMENT SPOTLIGHT



Institute visit at PDEU, Gandhinagar

Mechanical & Automobile engineering students of semester 7 visited the PDEU on 22/10/2023. It was coordinated by Prof. P. M. Mistri, Dr. B. C. Khatri and Prof. R. B. Shah. The entire show at PDEU was handled by Dr. Vishwesh Badheka. The students gained in depth practical knowledge about the conventional and metal 3-D printing process and types of welding processes. After that Innovation Lab of PDEU and 1 MW Solar Power Plant was explored. This visit was extremely fruitful for the students as they availed the technical knowledge regarding prevalent trends in the field.

Mechanical & Automobile Engineering Department

Advancement in welding technology

This seminar organized on 21/08/2023 provided insightful information regarding developments in welding. It was delivered by Dr. Vishwesh Badheka, IWE, Ph.D., Professor and Dean (Academic Affairs), Department of Mechanical and Automobile Engineering, School of Technology, PDEU. Over 90 students engaged with the speaker and actively participated in the session.



RESEARCH AND OUTREACH

Applied Mechanics & Civil Engineering Department

Prof. B. R. Shah has published a research paper on “Anaerobic treatment of real dye wastewater using a modified internal circulation reactor” in Journal of environmental engineering. ASCE, ISSN: 1943-7870, October 2023.

Prof. A. J. Patel has published a research paper on “Temporal assessment of noise pollution in major intersection of Ahmedabad city of Gujarat” in Journal of Harbin Engineering University, ISSN: 1006-7043, December 2023.

Prof. A. J. Patel has published a research paper on “Exploring an Option to the Conventional Canal Lining By Evolving Moulded Plastic Troughs- As A pragmatic Solution” in Journal of Propulsion Technology, ISSN: 1001-4055, November 2023.

Electronics & Communication Department

Prof. N. D. Patel has published a research paper on “Innovative approach of spectral efficiency optimization over various pilot reuse factors” in International Journal of Electrical and Electronics Research (IJEER), ISSN: 2347-470X, November 2023.

Prof. N. D. Patel has published a research paper on “The novel approach to spectral efficiency enhancement using massive MIMO in LoS” in International Journal of Mobile Network Design and Innovation, ISSN: 2347-470X, August 2023.

Prof. B. A. Brahmhatt, Prof. P. V. Patel and Prof. M. S. Chauhan has published a research paper on “Modified level shift modulation technique for modular multilevel converter with reduced switching frequency” in 1st international

conference on emerging technologies and science (ICETES), August 2023.

Electrical Engineering Department

Prof. H. S. Pandya delivered expert lecture on “Applications of Power Electronics for Electrical Machines Drives” on date 09/10/2023 at RCTI Ahmedabad.

Prof V. J. Upadhyay contributed as a member of the jury panel on 21/09/2023 at EED VGEC, Chandkheda for Pre-hackathon screening.

Computer Engineering & Information Technology Department

Prof. M. M. Goyani has published a research paper on “An event detection-based video summarization for cricket video” in Journal of Emerging Technologies and Innovative Research, ISSN: 2349-5162, October 2023.

Prof. A. D. Chaudhari has published a research paper on “Plant pathology detection for massive heterogeneous data using deep learning” in the 14th international conference on computing, communication and networking technologies, July., 2023.

Mechanical & Automobile Engineering Department

Prof. B. C. Khatri has published a research paper on “Mechanical and intergranular corrosion properties of auto TIG welded TP347H-T91 dissimilar weldments” in Materials Science and Technology, October 2023.

Prof. B. C. Khatri has published a research paper on “Numerical and experimental investigation on AZ91 friction stir welding joints: mechanics,

RESEARCH AND OUTREACH

properties” in Materials Science and Technology, November 2023.

Prof. J. A. Vadher has published a research paper on “Engineering to order operation with help of cloud computing” in Scandinavian Journal of Information Systems, ISSN: 0905-0167 August 2023.

Prof. J. A. Vadher has published a research paper on “A calibration methodology of RRFDTPM arduino data acquisition system with HTI ir-850 infrared (ir) industrial thermometer with detailing of empirical parameter used.” in Journal of Emerging Technologies and Innovative Research, ISSN: 2349-5162 October 2023.

Prof. M. M. Madhikar delivered expert session on Basics of Photography at GEC Bharuch on 19/08/2023.

Science and Humanities Department

Prof. R P Khatri has published a research a paper “Thickness dependent studies on p-type K-doped ZnS nanostructured films grown via colloid-based solution route for ambipolar” in the Physica B: Condensed Matter Journal, October 2023.

“The ideal engineer is a composite... He is not a scientist, he is not a mathematician, he is not a sociologist or a writer; but he may use the knowledge and techniques of any or all of these disciplines in solving engineering problems.”

Nathan W. Dougherty.

PARTICIPATION AND ACHIEVEMENTS

PARTICIPATIONS

Applied Mechanics & Civil Engineering Department

Prof. A. J. Patel has participated in NPTEL-AICTE faculty development program on Geotechnical Engineering Laboratory during August 2023 organized by SWAYAM NPTEL.

Prof. A. J. Patel has participated in NPTEL-AICTE faculty development program on Design Of Reinforced Concrete Structures during October 2023 organized by SWAYAM NPTEL.

Prof. M. M. Bhunga has participated in NPTEL-AICTE faculty development program on Geosynthetics and Reinforced Soil Structures during August 2023 organized by SWAYAM NPTEL.

Prof. M. M. Bhunga has participated in NPTEL-AICTE faculty development program on Subsurface Exploration : Importance and Techniques Involved during October 2023 organized by SWAYAM NPTEL.

Prof. V. R. Gor has participated in NPTEL-AICTE faculty development program on Geographic Information System during October 2023 organized by SWAYAM NPTEL.

Prof. V. R. Gor has participated in NPTEL-AICTE faculty development program on Natural resources Management during October 2023 organized by SWAYAM NPTEL.

Electronics & Communication Department

Prof. N. D. Patel has participated in NPTEL-AICTE faculty development program on Soft Skills during October 2023 organized by SWAYAM NPTEL.

Prof. N. D. Patel has participated in NPTEL-AICTE faculty development program on Principles and Techniques of Modern Radar Systems during October 2023 organized by SWAYAM NPTEL.

Prof. S. H. Mansuri has participated in NPTEL-AICTE faculty development program on The Joy of Computing using Python during October 2023 organized by SWAYAM NPTEL.

Prof. S. H. Mansuri has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. K. R. Patel has participated in NPTEL-AICTE faculty development program on Education Leadership during October 2023 organized by SWAYAM NPTEL.

Prof. K. R. Patel has participated in NPTEL-AICTE faculty development program on The Science of happiness and Wellbeing during October 2023 organized by SWAYAM NPTEL.

Prof. B. A. Brahmbhatt has participated in NPTEL-AICTE faculty development program on The Joy of Computing using Python during October 2023 organized by SWAYAM NPTEL.

Prof. B. A. Brahmbhatt has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. P. V. Patel has participated in NPTEL-AICTE faculty development program on The Joy of Computing using Python during October 2023 organized by SWAYAM NPTEL.

Prof. P. V. Patel has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

PARTICIPATION AND ACHIEVEMENTS

Prof. P. V. Patel has participated in ATAL faculty development program on silicon chip design from circuits to system during 18/12/2023 to 23/12/2023 organized by SCET Surat.

Prof. P. V. Patel has participated Gujarat fab training teach the trainer on semiconductor technology & manufacturing with hand on training during 6/11/2023 to 10/11/2023 organized by IIT Bombay.

Prof. M. S. Chauhan has participated in faculty development program on Inculcating Universal Human Values in Technical Education during 29/05/2023 to 02/06/2023 organized by AICTE.

Electrical Engineering Department

Prof. V. J. Upadhyay has participated in faculty development program on Automotive Systems with Sensor during 30/10/2023 to 3/11/2023 at iACE, Gandhinagar.

Prof. N. V. Upadhyay has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. K. K. Bhatt has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. K. K. Bhatt has participated in faculty development program on Role of AI in power system protection during 16/10/2023 to 21/10/2023 at L. D. College of Engineering.

Prof. K. K. Bhatt has participated in faculty development program on Emerging Trends & Practices in Optimization and Sustainable Technology during 20/11/2023 to 01/12/2023 at L. D. College of Engineering.

Prof. T. A. Chaudhari has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. C. K. Baria has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. S. V. Bankar has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. S. V. Bankar has participated in faculty development program on Emerging Trends & Practices in Optimization and Sustainable Technology during 20/11/2023 to 01/12/2023 at L. D. College of Engineering.

Prof. J. B. Pujara has participated in faculty development program on Emerging Trends & Practices in Optimization and Sustainable Technology during 20/11/2023 to 01/12/2023 at L. D. College of Engineering.

Prof. D. U. Thakar has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. D. U. Thakar has participated in Induction Phase 2 during 11/09/2023 to 22/09/2023 organized by NITTTTR, Bhopal.

Prof. H. S. Pandya has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. H. S. Pandya has participated in Induction Phase 2 during 11/09/2023 to 22/09/2023 organized by NITTTTR, Bhopal.

Prof. U. L. Makwana has participated in faculty development program on Role of AI in power system protection during 16/10/2023 to 21/10/2023 at L. D. College of Engineering.

PARTICIPATION AND ACHIEVEMENTS

Prof. T. P. Shah has participated in faculty development program on Alternate fuel and electric vehicle during 18/12/2023 to 23/12/2023 at L. D. College of Engineering.

Computer Engineering & Information Technology Department

Prof. A. K. Dodiya has participated in NPTEL-AICTE faculty development program on The Joy of Computing using Python during October 2023 organized by SWAYAM NPTEL.

Prof. H. R. Patel has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. M. M. Goyani has participated in NPTEL-AICTE faculty development program on The Joy of Computing using Python during October 2023 organized by SWAYAM NPTEL.

Prof. M. M. Goyani has participated in NPTEL-AICTE faculty development program on Introduction to Algorithms and Analysis during October 2023 organized by SWAYAM NPTEL.

Prof. P. S. Modi has participated in Induction Phase 2 during 11/09/23 to 22/09/23 organized by NITTR, Bhopal.

Mechanical & Automobile Engineering Department

Prof. P. M. Mistri has participated in NPTEL-AICTE faculty development program on Solar Energy Engineering And Technology during October 2023 organized by SWAYAM NPTEL.

Prof. P. M. Mistri has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. P. M. Mistri has participated in 59th faculty development program on Design Engineering (Level 1) during 17/10/2023 to 21/10/2023 organized by GTU-IDEALAB.

Prof. H. I. Chaudhari has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. M. G. Patel has participated in NPTEL-AICTE faculty development program on Solar Energy Engineering And Technology during October 2023 organized by SWAYAM NPTEL.

Prof. M. G. Patel has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. V. J. Chauhan has participated in NPTEL-AICTE faculty development program on Solar Energy Engineering And Technology during October 2023 organized by SWAYAM NPTEL.

Prof. V. J. Chauhan has participated in NPTEL-AICTE faculty development program on Public Speaking during October 2023 organized by SWAYAM NPTEL.

Prof. V. J. Chauhan has participated in Train the Trainer Program - Automotive System with Sensors during 30/10/2023 to 03/11/2023 at International Automobile Centre of Excellence (iACE).

Prof. J. C. Gamit has participated in NPTEL-AICTE faculty development program on Solar Energy Engineering And Technology during October 2023 organized by SWAYAM NPTEL.

Prof. J. C. Gamit has participated in Train the Trainer Program - Automotive System with Sensors during 30/10/2023 to 03/11/2023 at International Automobile Centre of Excellence (iACE).

PARTICIPATION AND ACHIEVEMENTS

Prof. J. C. Gamit has participated in NPTEL-AICTE faculty development program on Scientific Computing using python during October 2023 organized by SWAYAM NPTEL.

Science and Humanities Department

Prof. D. H. Sahay has participated in NPTEL-AICTE faculty development program on Developing Soft Skills and Personality during September 2023 organized by SWAYAM NPTEL.

Prof. K. B. Naik has participated in Developing Entrepreneurship & Vocational Skills during 17/07/2023 to 21/07/2023 organized by Organized by NITTTTR, Bhopal.

Prof. R P Khatri has participated in NITTTTR faculty development program on Design of Virtual Lab Experiments in Applied Sciences during July 2023 organized by SWAYAM NPTEL.

Prof. R P Khatri has participated in NPTEL-AICTE faculty development program on Physics of Functional Materials and Devices during October 2023 organized by SWAYAM NPTEL.

Prof. G. N. Limbad has participated in NPTEL faculty development program on History of English Language and Literature during October 2023 organized by SWAYAM NPTEL.

Prof. G. N. Limbad has participated in NPTEL faculty development program on Introduction to Western Political Thought during October 2023 organized by SWAYAM NPTEL.

“Engineering is not merely knowing and being knowledgeable, like a walking encyclopedia; engineering is not merely analysis; engineering is not merely the possession of the capacity to get elegant solutions to non-existent engineering problems; engineering is practicing the art of the organized forcing of technological change... Engineers operate at the interface between science and society.”

PARTICIPATION AND ACHIEVEMENTS

FACULTY ACHIEVEMENTS

Prof. N G Raval from civil engineering department is Awarded in Peer-Reviewing for outstanding contribution to the quality of book for B. P. International, Kolkata, in the field of transportation Engineering.

Prof. V. R. Gor from civil engineering department is recognized as course topper in MOOC course Natural resource Management on 28/10/2023 hosted by IIT Guwahati.

Prof. A. J. Patel from applied mechanics department is recognized as course topper in MOOC course Design of Reinforced Concrete Structures on 28/10/2023 hosted by IIT Kharagpur.

Prof. M. M. Bhunga from applied mechanics department is recognized as course topper in MOOC course Geosynthetics and Reinforced Soil Structures.

Prof. N. D. Patel from electronics and communication department is recognized as course topper in MOOC course Soft Skills course on.

Prof. J. A. Vadher from the Mechanical Engineering Department guided Dr. Anand Patel in completing his Doctor of Philosophy (Ph.D.) from June to December 2023.

STUDENT ACHIEVEMENTS

Winner of IBM's Skillsbuild program:

Smit S. Patel (Team Leader) (200160116011), Ved B. Panchal (200160116002), Aditya S. Shinde (200160116039), Utsav H. Pandya (200160116016) and Kajal S. Tiwari (200160116027) from CE/IT department participated in IBM's Skillsbuild program in front-end web development internship. More than 100 teams actively participated on 10/10/2023 from all over India. A single-point platform for college

students to order their snacks without waiting in a long queue application named "Order Your Snacks" was presented. They were selected into the best top 9 teams for PITCH NIGHT and secured 1st rank among selected top 9 teams with excellent performance and best execution of the project.



Goswami Paavangiri Pragneshgiri (210160111003) of Electronics and Communication Engineering department Secured 1st prize in Javelin Throw competition in Inter Zonal GTU Tournament on 6/11/2023.



FORTHCOMING EVENTS

Republic Day Celebration January 2024

Institute will celebrate Republic Day Celebration on 26th January 2024.

ENCOMAA Souvenir 2024 launching in February 2024

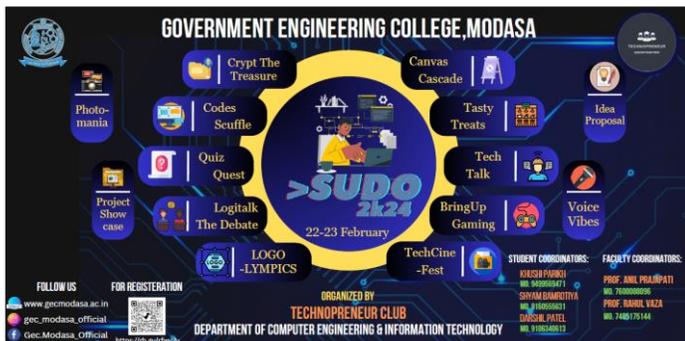
The launching event of the Souvenir - 2024 will be organized by the ENCOMAA team.

Aarambh 2.0 Sports Week in February 2024

Institute level sports week for various sports activities such as Table tennis, carrom, badminton etc. will be arranged in February 2024.

Sudo 2024 in February 2024

CE/IT department will organize a technical event sudo 2024 in February 2024.



Expert talk on IPR in February 2024

Expert talk on Intellectual Property Rights (IPR) will be arranged by the Applied Mechanics Department under SSIP 2.0.

Expert talk on STAAD Pro in March 2024

Use of STAAD pro to design a building, demonstration and Handson session for elective subject DRCS will be arranged by the Applied Mechanics Department.

Site Visit in March 2024

Site visit to understand reinforcement detailing at site for 6th semester students will be arranged by the Applied Mechanics Department.

Industrial Visit in February 2024

Electrical Engineering department will organize Industrial Visit to AREDI substation, VEER electronics and Madhur Dairy for 4th and 6th semester students in February 2024.

AISaksham Program in February 2024

Aligning with the market trend and future job required skills, Edunet Foundation, with support from Microsoft Corporation India Pvt. Ltd. and Tata Consultancy Services., launched the AISaksham Program, for enabling, empowering, and accelerating young learners from underserved communities or backgrounds towards technology careers. CE/IT department will host AISaksham Program.

Orientation of IBM Skills Build Program in February 2024

IBM SkillsBuild is a free skill building program offering college students access to 85,000 courses and masterclasses across diverse fields. Developed by IBM, it provides comprehensive skill development, fostering professional growth and enhancing

FORTHCOMING EVENTS

employability. CE/IT department will host this Program.

Expert talk on How to market ready yourself in February 2024

Expert talk on How to market ready yourself will be arranged by the Electrical Engineering Department.



Government Engineering College,
Modasa
Department of Electrical Engineering
Organises



"How to Market Ready yourself"



29th Feb 2024

11.00 am onwards

Expert: Shri Hiren Thaker, Ex. International
Program Head, GTU, Counselor and
Founder, Ayana Academy

Venue: 7204, Electrical Engineering Building

Thalassemia & Blood Donation Camp in March 2024

Institute will organize Thalassemia and Blood Donation Camp for the institute students.

Placement Fair in March 2024

Institute will host district level placement for all students of the Arvalli district under KCG, Gujarat.

"The most important inventions are those that empower others to unleash their creativity—to pursue their dreams."

Jensen Huang

CEO of NVIDIA

Future of work: Industry 4.0

Today, the industrial world is facing rapidly changing challenges. Industry also facing challenges like minimum and limited resources that means with availability of finite resources we all need to do more output with fewer resources. Incorporation of the latest technology like digitalization and automation which play role as game changers to meet these challenges on the way to Industry 4.0. Industries can develop customize solution and products that were difficult to imagine before few years ago. Trending smart technology is shaping the world of manufacturing. Buzz words, specifically Digital Manufacturing, cyber physical system, and Smart Factories are transforming the manufacturing Industries' entire value chain for Industry 4.0.

Today, Devices like smart phones, smart watches, smart TVs, Health bands, Applications like Siri, Alexa, GPS, and Internet have entered in our day-to-day routine life. This era known as the fourth industrial revolution and referred as Industry 4.0. Characterized by increasing automation and the deployment of smart machines/equipment under smart factories, informed data helps to produce goods more efficiently and productively across the value chain with improved flexibility to meet customer demands using mass customization.

With the application of the latest technology such as Internet of Things (IoT), Cloud computing and manufacturing, artificial intelligence (AI) to quantum computing, cyber security, Robotics, Machine learning into their manufacturing facilities and throughout their operations helps in better and efficient manufacturing to satisfy the demand of customer and leads towards Industry 4.0. This digital transformation for manufacturing lead to increased automation, predictive maintenance, self-optimization of process improvements and, above all, a new level of efficiencies and responsiveness to customers which were not possible earlier.

Driving Technology of Industry 4.0: Smart factories, Internet of Things (IoT), Cloud computing, AI and machine learning, Edge computing, Cyber security, Cyber-physical systems, Blockchain technology in supply chain, Big data analytics for optimal decision making, Digital twin, Enterprise Resource Planning

Benefits of Industry 4.0: Industry 4.0 deals with design, production planning, supply chain, sales inventory, quality, manufacturing engineering, customer service, so there's nothing it doesn't touch. Major benefits include:(1) Improved knowledge sharing and collaborative working environment, (2) Greater agility and flexibility, (3) Better quality Product and cost reduction, (4) A real-time supply chain, (5) Interlinking and analysis of data for fast and confident decisions, (6) Improved Productivity and Less Machine Downtime

Industries Utilizing Industry 4.0: The utilization of Industry 4.0 technology, solutions, and approaches spans many diverse industries. Major industries are listed here: (1) Manufacturing and Automobile Industries, (2) Pharmaceuticals & Medical Devices, (3) Food & Beverage, (4) Electronics equipment, (5) Packaging, (6) Process Industries, (7) Assembly and Automation Industry.

- Prof. Dr. Jeetendra A Vadher, Mechanical Engineering Department

Cyber Security Trends and Predictions for 2024

As the year 2024 begins, analysts and thought leaders in the cyber security industry are sharing their insights into the upcoming trends and predictions. This past year witnessed a surge in ransomware attacks, evolving into double and triple extortion efforts, while the spotlight also shifted towards AI and machine learning, particularly with the introduction of generative AI. Here are nine cyber security trends and predictions for 2024 to keep on your radar:

1. Surge in Zero-Day Vulnerabilities in Extortion Attacks

Security experts anticipate an increase in the use of zero-day vulnerabilities by attackers in extortion attempts. By exploiting a single vulnerability across multiple organizations, as observed in the Move It Transfer attacks, malicious actors can target numerous victims within a single campaign, causing damage before the tactics become widely known.

2. Generative AI Impacting Email Security

Generative AI, a highlight of 2023, is expected to influence organizations from a threat perspective. Attackers may further integrate generative AI into social engineering campaigns, using large language models to impersonate high-level decision-makers. Combatting this threat requires organizations to focus on employee awareness training and strengthen overall security measures.

3. Rise of Passwordless Authentication

After years of anticipation, 2024 might witness the widespread adoption of passwordless authentication, with biometrics, especially fingerprint and facial scanning, emerging as the dominant modalities. Biometrics is considered more secure against attacks and fraud compared to traditional methods like SMS or email-based one-time passcodes.

4. Increased Embrace of Identity Verification

As AI capabilities improve, organizations are anticipated to embrace identity verification more widely in 2024. This will be crucial for ensuring the authenticity of employees, partners, and customers during account onboarding, utilizing technologies that compare photographs and information to government documents.

5. Growth in Proactive Security Investments

Organizations are advised to invest in proactive security tools and technologies in 2024 to better detect vulnerabilities and security gaps. Proactive security measures include risk-based vulnerability management, attack surface management, security posture tools, and validation of security controls through activities like penetration testing and red teaming.

6. Stringent Regulations for Connected and Embedded Devices

The increasing adoption of IoT devices may prompt more regulatory scrutiny in 2024, especially concerning security measures on embedded devices. Governments and regulatory bodies are expected to develop comprehensive frameworks, enforcing cybersecurity-by-design standards to address the growing sophistication of attackers.

7. Continued Challenges in Third-Party Security

Security challenges related to third-party vendors and partners are anticipated to persist. Attackers are increasingly targeting third parties with potentially weaker security infrastructures, creating lucrative opportunities to compromise larger organizations. Establishing security checklists and requiring third-party security evaluations are recommended strategies for organizations concerned about third-party security.

As organizations gear up for 2024, these trends highlight the evolving landscape of cyber security and the need for proactive measures to counter emerging threats.

- **Prof. P. S. Modi, Information Technology Department.**

GECM E-News

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Government Engineering College, Modasa.

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