

2022-23



IETE SAKEC



NEWSLETTER FOR IETE SAKEC MEMORABLES



CONTENTS

1. About IETE	1
2. Vision and Mission of IETE-SAKEC	2
3. Message from Principal	3
4. Message from ISF coordinator	5
5. New IETE members: SAKEC	6
6. Events	
6.1 Introduction to Ethical Hacking	11
6.2 TECHXCELLENCE :	12
Technical Poster Presentation	
Competition	
6.3 UI/UX Design Fundamentals	13
6.4 IETE-SAKEC Industrial Visit	14
ISRO-2023	
6.5 Visit to Nanofabrication facility,	16
IITB	
6.6 Applications of Geospatial	17
Technology in Paleochannel	
Studies: Potential And Future	
Trends	
6.7 Online Certificate Course on	18
"Geo-data sharing and Cyber	
Security"	
6.8 Vid-youth 2023	19
6.9 Oscillation 2023	20
6.10 Remote Sensing for Natural	22
Resource Studies	
6.11 Winter Internship on VLSI Design	23
7. Editorial team	24

ABOUT IETE

The Institution of Electronics and Telecommunication Engineers (IETE) is India's leading recognised professional society devoted to the advancement of Science and Technology of Electronics, Telecommunication & IT. Founded in 1953. The IETE is the National Apex Professional body of Electronics and Telecommunication, Computer Science and IT Professionals. It serves more than 1,25,000 members (including corporate, student and ISF members) through various 63 centres, spread all over India and abroad. The Institution provides leadership in Scientific and Technical areas of direct importance to the national development and economy. Government of India has recognised IETE as a Scientific and Industrial Research Organization (SIRO) and also notified as an educational institution of national eminence.

The objectives of IETE focus on advancing electro-technology. The IETE conducts and sponsors technical meetings, conferences, symposia, and exhibitions all over India, publishes technical journals and provides continuing education as well as career advancement opportunities to its members.

The IETE focuses on advancement of the Science and Technology of Electronics, Telecommunication, Computers, Information Technology and related areas. Towards this end the Institution promotes and conducts basic engineering and continuing technical education programmes for human resource development.



VISION AND MISSION OF IETE

VISION

Reaching the un-reached and empowering the youth through Technical Education and Skill Development.

MISSION

Advancement of Electronics, Telecommunication, Information and Technology & other related disciplines to contribute in Nation's Human Resource & Infrastructure Development through our Engineers.

IETE-SAKEC :

- To provide common platform for students to exchange of ideas in technical topics of interest, e.g., curriculum, employment, higher educational opportunities, emerging trends, etc.
- To bridge the curriculum gap by workshops, industrial visits and competition at intra and inter college levels.
- To provide connectivity, guidance and opportunities to gel with Electronics & Communication industry
- To build up team spirit and self-reliance among student members and thus to groom a student as a professional.

MESSAGE FROM PRINCIPAL



Dr. Bhavesh Patel
Principal, SAKEC
Vice-Chair, IETE Mumbai

Dear Reader,

As we embark on this exciting journey of staying connected and informed through our IETE SAKEC newsletter, I am excited to extend my heartfelt greetings to each and every one of you.

Our IETE SAKEC is more than just a group of individuals working together; we are a community of dedicated professionals with a shared passion for excellence and innovation. This newsletter serves as a platform to celebrate our successes, acknowledge our collective efforts, and foster a sense of unity and camaraderie.

Throughout these pages, we will showcase the remarkable achievements, events, and milestones accomplished by our team members. It is crucial to recognize that our accomplishments are the result of the collaborative spirit and tireless efforts put forth by each team member. I encourage you all to take a moment to appreciate the exceptional work done by stake holders and the positive impact it brings to our student forum and beyond.

Additionally, this newsletter will be a valuable source of information for staying up-to-date with the latest developments, important announcements, and upcoming events within student forum. It will be a conduit for sharing valuable insights, best practices, and fostering open communication among all.

Let us embrace this initiative with enthusiasm and a willingness to engage. Together, we can create a newsletter that not only reflects our collective achievements but also fosters a sense of pride in being a part of this exceptional team.

MESSAGE FROM PRINCIPAL

I extend my sincere appreciation to the newsletter committee for their hard work and dedication in bringing this project to fruition. Your commitment to enhancing communication and building a stronger sense of community is commendable.

As we move forward, I eagerly anticipate witnessing the growth and impact of our IETE SAKEC newsletter.

Let us harness the power of this platform to strengthen our bonds, celebrate our triumphs, and learn from each other. Thank you all for your unwavering dedication and for making our student forum an extraordinary place to work.

MESSAGE FROM ISF COORDINATOR



Dr. Vinutha T. P.
ISF Co-Ordinator, SAKEC
EC member & TPC Convener
IETE Mumbai

Greetings from IETE-SAKEC!!!

I am delighted to present this newsletter that presents the spectra of events wherein students plunged into activity post pandemic with zeal and enthusiasm! IETE-SAKEC is one of the active student branches under the IETE Mumbai chapter. Each year we are rising our target bars to achieve our motto: Build a professional from a student.

ISRO Bangalore visit is the prime outdoor activity and has emerged as the focus activity among student community of SAKEC. Winter Internship under the banner of IETE Mumbai centre introduced the in-depth skills in the VLSI domain to the participants. Other technical visits, workshops, competitions, guest lectures are inculcating intended technical grooming, managerial skills, and team spirit among members.

This year my involvement with IETE is strengthened with responsibility as the Executive Committee member and the Technical Programme Committee Convener for IETE Mumbai for the tenure of 2022-2024, while our beloved Principal, Dr. Bhavesh Patel is chosen as the Vice Chairman of IETE Mumbai centre for this tenure.

NEW IETE MEMBERS: SAKEC FACULTY



**Dr. Sanjay Sange,
(IT)
IETE Fellow Member**



**Mr. Bhushan Pawar
(EXTC)
IETE Member**

IETE SAKEC

STUDENT OFFICE BEARERS



MR. NAYAN SHINDE
CHAIRPERSON



MR. SHUBHAM ERANDE
SECRETARY



MS. KHUSHI GUPTA
TREASURER

IETE SAKEC

STUDENT COMMITTEE MEMBERS

• GRAPHICS TEAM :

- VINAY KOLI
- AMAY SANGLE
- ASHITOSH JADHAV

• TECHNICAL TEAM :

- SHUBHAM S. MANCHEKAR
- WASIM S. SHAIKH
- PRANAV C. JIWANI
- AMULYA R. SHREERAM
- PARTH R. DOIPHODE

• INFRA AND LOGISTICS TEAM :

- VIJAY R. SANDHA
- YASH V. WANKHADE
- YASH TAWADE
- SURAJ ROKADE
- SURAJ JAGTAP

• WEBSITE TEAM :

- MADHVI MORE
- HIMANSHU MORE

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STUDENT COMMITTEE MEMBERS

• DOCUMENTATION AND ADMINISTRATION TEAM :

- DHRUV S. MEHTA
- VEDIKA D. BHANGARE
- ASMIT A. RAM
- KALPESH HATANKAR
- SIDDHARTH SHARMA

• PUBLICITY TEAM :

- VATSAL PANDEY
- SAIRAJ A. KOTIAN
- DIPESH TUBHE
- CHINMAY MANTORA

• PAP TEAM :

- SAURABH PATUKALE
- DEEPESH PRASAD

• ANCHORING TEAM :

- DEEPMALA SINGH
- ESHA S. TELKAR

IETE SAKEC

STUDENT MEMBERS :

1. RAJ TAWADE
2. INGLE SUMEET
3. YAKSHA POLADIA
4. PREMKUMAR NOMUL
5. VARUN SAMPAT
6. SUJAL MAHAJAN
7. SATSHIL NARKHEDE
8. KOLI JIGNESH
9. BHISE KSHITIJA
10. VEDANT JADHAV
11. SHREYAS GURRAPU
12. RUTVIJ AMBODKAR
13. ROHAN ROUNDHAL
14. KHUSHI DEDHIA
15. TEESHA SEJPAL
16. ABHIRAM KASHYAP
17. AKSHAY PATIL
18. KEDAR VICHARE
19. DHRUV TRIVEDI
20. RUCHIT DOSHI
21. CHIRAG RAHATE
22. RAJ LATHIYA
23. SATYAM JAGDALE
24. ANUSHKA SHINDE
25. PRISHA GALA

EVENTS

Introduction to Ethical Hacking



The Department of Electronics & Telecommunication Engineering in association with IETE SAKEC organized a five day workshop on "Introduction to ethical hacking" from 19th July 2022 to 25th July 2022.

The speaker for the above event was Ms. Seema Kawale from department of Electronics & Telecommunication engineering. This Event was organized for the third year students of the EXTC department.

The various topics covered in the above event were Footprinting/reconnaissance tools hands on, Mirroring of target website using various tools, Hackers' Search engine some examples and hands on , Network trace routing in windows and linux, Scanning using Nmap and social engineering, Hacking of web application, Cryptography techniques.

After the event quiz based on the workshop was conducted at the end.



EVENTS

TECHXCELLENCE- Technical Poster Presentation Competition

Department of Electronics and Telecommunication Engineering in association with IETE-SAKEC an organized initial round of "TECHXCELLENCE - Technical Poster Presentation Competition" on the occasion of the Anniversary of IETE Mumbai on 10 Sept. 2022 virtually in MS Teams. An open platform for presenting innovative ideas in various concepts through technical posters and competing tip-to-tip with the peers of MU. The event is Judged by Dr. T.P. Vinutha, HOD EXTC, SAKEC, and Mr. Sagar Vijay Mhatre, Asst. Prof. at K. J. Somaiya Institute of Engineering and Information Technology, Mumbai.



On 14th Sep. 2022 final round of "TECHXCELLENCE - Technical Poster Presentation Competition 2022" held in IETE House, Collector colony, Mumbai. Organized by IETE Mumbai. 19 groups (nearly 60 students) from different Institutes of Mumbai University participated. Four groups from SAKEC participated in this final round. Dr. T. P. Vinutha as TPC Convener & Ms. Mamta Tikaria was part of the organizing team. Two groups of SAKEC won the prizes.

A promotional poster for the TECHXCELLENCE Project poster presentation competition. The poster features a stylized illustration of a person sitting at a desk with a computer monitor displaying charts. The text on the poster includes:

TECHXCELLENCE
Project poster presentation competition
On the occasion of the centre
Anniversary!
THINK. CREATE. INNOVATE. INSPIRE!!

14th Sep, 2022
3 pm

IETE House

Dr. Savita Sangam
+91 98191 52049
Ms. Shaista Khanam
+91 93215 62213

EVENTS

UI/UX Design Fundamentals



Department of Information Technology in association with IETE SAKEC organized "UI/UX Design Fundamentals" on 17th September 2022. Speakers for the event were Mr .Himanshu Mukane (TE-IT) and Ms. Prajakta Kambli (TE-IT)

The objective of the event was to :

- Understand user experience design and User Interface Design.

- Understand how the elements of user experience work together.
- How to make fully interactive prototypes.
- Build a UX project from beginning to end.
- Create beautiful website designs in Figma.
- Understand the interface of software's like Figma, Adobe XD, etc.



EVENTS

IETE-SAKEC Industrial Visit ISRO-2023



The industrial visit to U.R Rao Satellite Center, Vishweshwaraiah Museum, HAL, Mysore, and Coorg was a comprehensive experience for 47 students and 3 faculties from your college. The primary objective was to provide practical exposure to the aerospace industry and space technology. The visit included insightful presentations, facility tours, and interactive sessions, particularly at U.R Rao Satellite Center, Vishweshwaraiah Museum, and HAL.

The students were exposed to satellite integration and testing facilities, control rooms, and various stages of satellite manufacturing at U.R Rao Satellite Center.

The Vishweshwaraiah Museum provided a glimpse into the history of engineering in India, showcasing exhibits and simulators. The HAL Museum, located at the HAL airport in Bangalore, presented the evolution of aviation in India, featuring early aircraft replicas, models of HAL-built aircraft, and a display of vintage and modern aircraft.

The Mysore and Coorg leg of the visit added cultural and historical dimensions. Students explored the Mysore Palace, Chamundeshwari temple, and the natural beauty of Coorg, including hills, valleys, and coffee plantations.



The students were able to view the aircraft up close and were impressed by the attention to detail in the design and manufacturing of the aircraft. The exhibit included a replica of the Hypersonic Flight Vehicle (HFV), a joint project between HAL and the Defense Research and Development Organization (DRDO), which aims to develop a vehicle capable of flying at hypersonic speeds.

Overall, the industrial visit was deemed enriching and informative, offering practical insights into aerospace industry functioning, contributions of Sir M. Vishweshwaraiah, and the cultural heritage of Karnataka. The students also had the opportunity to interact with industry experts, enhancing their understanding of aerospace and engineering.



EVENTS

Visit to Nanofabrication facility, IITB

Department of Electronics and Telecommunication Engineering in collaboration with IETE SAKEC organized a visit to Nanofabrication facility, IITB on Saturday, 24/9/2022 for TE and BE EXTC students. This visit was carried out for students to make them aware of different Fabrication processes involved in VLSI Design and the facilities available at IITB.

45 students with two faculty members Mr. Shridhar Sahu and Mrs. Gauri Chavan visited the facility which consisted of clean rooms, lithography equipment, sputtering process, molecular beam epitaxy and many more.

At IITBNF, there is a class 1000 cleanroom that has a maximum of 1000 particles per cubic feet of air inside.

The lithography process is used to write patterns on a resist layer (Photo lithography and Electron beam lithography) and the technique needed to transfer these patterns from the resist onto the main layer of the semiconductor wafer (Wet etching and Dry etching). Students also learnt about Thin film deposition. All in all, it was a wonderful learning experience. The visit took 3 hours to be completed. The overall feedback from students was very motivating. Before leaving the campus, a token of appreciation was presented to the IITBNF team for guiding the group of students and faculties throughout the visit.



EVENTS

Applications of Geospatial Technology in Paleochannel Studies: Potential And Future Trends

The Department of Electronics and Telecommunication Engineering in association with IETE-SAKEC student chapter organised one day workshop on "Applications of Geospatial Technology in Paleochannel Studies: Potential And Future Trends" on October 11, 2022 with SAKEC as the remote centre.

ABOUT THE COURSE:

Remote Sensing of Paleochannels: An Overview - (Dr. R. P. Singh)

Detection of buried paleochannels, reconstruction of drainage network to unravel the missing link with active tectonics - (Dr. R. S. Chatterjee and Dr. Suresh Kanujia)

Microwave Remote Sensing of Paleochannels - (Dr. A.S. Rajawat)

Integrated study of Saraswati Paleochannels using Space to Ground sensors

- (Dr. B.K. Bhadra)

A Glimpse into discharge characteristics of lost Saraswati river

- (Dr. Gaurav Kumar)



EVENTS

Online Certificate Course on "Geo-data sharing and Cyber Security"

The Department of Electronics and Telecommunication Engineering, SAKEC in association with IETE-SAKEC student chapter organized an Online Certification Course on "Geo-data sharing and Cyber Security" from 17 October 2022 to 21 October 2022 with SAKEC as the remote centre.

ABOUT THE COURSE :

Overview of Cyber security- Threats and challenges
Software tools and products for secure data and information access
Safe transactions and data accessing in web and mobile applications
Best practices for Cyber Security
Online Geo-data sharing and cyber security



EVENTS

Vid-youth 2023



On April 3, 2023, the SAKEC EXTC Department, in collaboration with IETE SAKEC, organized an event named "VID-YOUTH." The event featured a Panel Discussion with speakers Karan Shah and Dheeraj Naidu, who discussed topics related to network engineering, router connections, and data transmission. The event garnered enthusiastic participation from students who actively engaged in the session by posing questions. In addition to the technical

discussions, the event showcased the cultural talents of students through dance, studio performances, and entertainment games. These activities were organized by the EXTC Department Student's Council and coordinated by Ms. Uma Raj. The event concluded on a positive note, with attendees providing favorable feedback. Many expressed a keen interest in contributing to the work of the EXTC Department Student Council.



EVENTS

Oscillation 2023



SAKEC's Electronics & Telecommunication Department, in collaboration with IETE SAKEC, organized the "Oscillations 2023" technical poster presentation inter-college competition on April 5th, 2023. The event aimed to showcase the research and technical skills of undergraduate students across various academic disciplines. Inauguration was held in the presence of ISF Coordinator and HOD (EXTC), Ms. T.P. Vinutha, along with SAKEC faculties, the competition was coordinated by Ms. Uma Raj, Assistant Professor of the Electronics & Telecommunication Engineering Department, and the student council.

Judged by experts including Dr. Harvindar Singh Gambhir, Mr. N.K Karnani, Ms. Bhakti Garde, and Dr. Asha Durafe, Assistant Professor of Cyber Security Sakec, the event witnessed participation from all Final Year SAKEC EXTC students, with 26 project groups totaling 110 participants. This included representation from 4 groups from other colleges and 6 from other departments of SAKEC. Posters were evaluated based on novelty, poster and project implementation, and the presentation of the work.



Participants engaged with judges and attendees, discussing their research findings and exchanging ideas throughout the event. The announcement of competition winners took place at the event's conclusion, with cash prizes awarded to the top performers. The winning posters showcased a remarkable level of technical expertise, innovation, and creativity.

EVENTS

Remote Sensing for Natural Resource Studies

The Department of Electronics and Telecommunication Engineering at SAKEC, in association with IETE-SAKEC, organized a course on "Remote Sensing for Natural Resource Studies" for school students from June 12th, 2023, to October 23rd, 2023, with SAKEC serving as the remote center. The course covered the following topics:

- Basics of Remote Sensing.
- Platform and Sensors.
- Image Analysis: Visual and Digital.
- Global Navigation Satellite System.
- Geographical Information System.
- Soil Resource Mapping and Assessment using Earth Observation.
- Harnessing Remote Sensing data for Crop Inventory and Yield Forecasting.
- Remote Sensing for Precision Farming.

Forest, Biodiversity, and Ecosystem studies.

using Remote Sensing.

Overview of Geological Applications.

Earth Observation data for Geological Hazards.

Remote Sensing for planetary studies.

Application of RS & GIS in Glacier and Climate change studies.



EVENTS

Winter Internship on VLSI Design



Shah and Anchor Kutchni Engineering College, in collaboration with IETE Mumbai and IIC 5.0, organized a winter internship on VLSI Design from December 26, 2022, to January 6, 2023, aiming to prepare students for the industry. The first part included lectures and practical sessions conducted by Dr. Sushma Srivastava and Prof. Shridhar Sahu, covering topics such as MOSFET physics, MOSFET operation, CMOS inverter design, and CS amplifier design.

The sessions involved implementing and simulating circuits using the industry-standard CADENCE toolset's Virtuoso tool. Students learned to design schematics, layouts, and perform various simulations.

A project on designing a current source load CS amplifier was assigned, and students worked on it for the remaining period of the internship. Six groups were formed, and a competition based on the design and specifications of the CS amplifier was conducted. Rubrics were provided at the beginning, and grading included viva-voce conducted by Mr. Abhishek Kadam, an IITB Research Scholar. The top two groups received winner certificates and prize money.

Mr. Abhishek Kadam also delivered a session on VLSI Chip Design Flow & Neuromorphic Engineering. The valedictory function included Dr. Bhavesh Patel, Principal SAKEC, highlighting the increasing demand in VLSI Design. All participants received participation certificates.

EDITORIAL TEAM



Ms. Monika Budania.
(EXTC)



Ms. Darshana Jethva.
(EXTC)



Vedant S. Langi



Aniket R. Nikam



Sakshi S. Kadam



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