



Xavier Institute of Engineering

**Traces of
AS&H**



JESUIT
INSTITUTES

**Department Of
Applied Sciences
And Humanities
Newsletter
2023-24**



About the department



The Department of Applied Sciences and Humanities is a team of experienced faculty members who work hand-in-hand to nourish the analytical knowledge and skills of the students. The department offers regular lectures, lab sessions, remedial lectures, peer learning, extra-curricular activities, project exhibitions, competitions and much more for the overall development and growth of the students. Continuous assessment of the students through tests, quiz, assignments and prelim exams helps students to know their strengths and weaknesses. The teachers mentor students all throughout the year, providing a platform for their intellectual and professional growth.

From the Editorial Team



The department of Applied Sciences and Humanities of Xavier Institute of Engineering is exhilarated to present you all its newest newsletter. This newsletter seeks to capture the priceless moments in the premier year of the students' engineering journey. It celebrates the milestones achieved by the First Year Engineering students. This annual issue covers the academic, co-curricular and extra-curricular activities, achievements in semester examinations and research-related undertakings by the students, staff and faculty of the First Year Engineering department.

This institute, always abuzz with various events, workshops, seminars and programmes, provides a plethora of opportunities to the students to head-start their academic careers. This newsletter aims to communicate the legacy that the preceding First Year Engineering students have left behind to inspire the newly admitted students for pursuing success and joy with a spirit to explore new domains of learning.

Essentially, we assure you that a lot can certainly happen during the First Year of Engineering, and we wish all the students to achieve much, much more in the rest of their years spent at Xavier Institute of Engineering.

Department Vision Mission



Our Vision

To nurture the Joy of Excellence in a world of High Technology

Our Mission

To strive to match global standards in Technical Education by Interaction with Industry, Continuous Staff training and Development of quality of life

Message From The Director



Fr. Dr. John Rose S.J.

When students first set foot in the nurturing and bright atmosphere of XIE, it can be taken for granted that they are in for an exciting journey that will turn them into pukka XAVIERITES, persons moulded by what is called *cura personalis*, that which makes them total and wholesome personalities. Brilliance of mind and innate genius in any field can stagnate and even atrophy if growth in age is not carried out in freedom and liveliness, Anyone can drop in at XIE to feel its special ambiance that is created by its Jesuit management and the quality of its academic, office, and working Staff. There is no intention to compete with other institutions; there is only the desire for *la joie de vivre*, the joy of living. To teach, guide, stand with, challenge, make intellectually curious, and bring students to their full potential is what the Staff is dedicated to. And this Staff is much rewarded in noticing that the just-out-of-school Students they have trained to be engineers are easily able to face the world squarely, resolving scientific problems, reshaping old models, and keeping up with the latest. Even more, the Staff is itself encouraged to keep up its standards when they notice that their students are spiritually minded, caring of the environment, and ever ready to help the poor and the disabled and to take up any cause that fights for the welfare of any human being.

There is no doubt that XIE appreciates the kudos it receives from the social media and academic institutions, but nothing gives it greater contentment than when both Staff and Students do their duties with the least complaints. Even during the lockdown, despite social distancing and restrictions, XIE adapted to the online mode smoothly and conducted conferences, workshops, training programmes on Machine Learning, Internet of Things, Data Science and, in the senior classes, Artificial Intelligence. And, now, without cutting down on what's on the regular timetable, it continues to offer honours programmes to enhance soft skills.

A house is strong if it's built on rock. This is the foundation that XIE attempts to provide each student: intellectually sound and professionally delivered instruction, hands on experience of whatever is to be learnt, critical thinking and rationally justifiable moral values, habit of reading and curiosity to know more, self respect and self responsibility. The basic and most important education of most students is in the family; XIE merely builds up on it. It takes minds to higher levels and has feet solidly on the ground, not missing out on the simple pleasures of life, on the humour that attends on any human interaction, and on the upliftment that accompanies truth, goodness, and beauty.

Fr Dr John Rose SJ

Message From The Principal



Dr. Y.D. Venkatesh

Dear students of First Year Engineering,
Being established in the year 2005, Xavier Institute of Engineering (XIE) runs 4 year degree courses leading to the Bachelor of Engineering (B.E.) in the four streams of Engineering, namely, Computer Engineering, Electronics and Telecommunication Engineering, Information Technology, and Computer Science and Engineering (Cyber Security, IoT, Blockchain Technology). All the courses are recognized by AICTE (All India Council for Technical Education) and approved by the University of Mumbai. XIE is affiliated to the University of Mumbai. The B.E. degree is conferred by the University of Mumbai to a student of XIE after the completion of all the stipulated courses and a project work carried out satisfactorily, following the scheme of syllabi of UOM.

The vision statement of the institute is "To nurture the Joy of Excellence in a world of high technology" and the Mission statement is "To strive to match global standards in Technical Education by interaction with industry, continuous staff training and development of quality of life." The institute has been successfully accredited by NAAC (The National Assessment and Accreditation Council) to assess the quality of education offered at XIE. Two of our departments; namely EXTC and IT, have been successful in obtaining NBA certification recently. XIE thrives to keep the standards up-to-date of its academic, administrative, co-curricular as well as sports activities. XIE believes that every student can be sculpted into a jewel and be molded in the right direction while infusing the qualities of all-round development.

This initiative of bringing out our very own FE Departmental newsletter is a milestone that marks the growth, that tries to unfold the imaginations of students and collaborators, and is established to give life to one's thoughts and aspirations. It unleashes on a wide spectrum of achievements, awards, events and recognition in various fields of academics affiliated to its students as well as the faculty members. Innovation and creativity are fundamental to all academic disciplines and educational activities. To build up and inculcate these creative habits and to stay apprised with the current requirements and to meet the demands of industry, the institute is conducting workshops on various subjects such as coding, programming, IOT, Machine Learning, spoken tutorials, Python, Robotics, Digital Image Processing and Artificial Intelligence to name a few. I wish all the students of First Year Engineering to flourish in their academics and leave behind a paramount of imprint so that the upcoming and aspiring students can follow your foot-prints with inspiring motivation and awe.

Message from the Head of the AS&H department



Dr. Vijay Kapure

Dear Xavierites,

Welcome to the World of Engineering!

“It is not the strongest or the most intelligent who will survive, but those who can best manage change”. - Charles Darwin

As the world faces the most critical times of this century with lots of uncertainty and pain engulfing us, the human race is searching for hope. Hope that life would be back to normal, hope that we can step out without fear. As Martin Luther King Jr quotes, “ Only in darkness can you see the stars ”; this is the time to sit back and focus our energies towards our dreams. I believe each one of you has thought of giving shape to your dream of pursuing a technical career through the branch and discipline of your choice. We, at the Department of Applied Sciences and Humanities, Xavier Institute of Engineering, are together with you, helping you to realize your dreams.

Having pursued the science stream in your twelfth standard, you are now eager to explore and apply the fundamental principles learnt to develop solutions to challenging technical and societal problems. Courses like Engineering Mathematics, Engineering Physics, Engineering Chemistry, Engineering Mechanics, Basic Electrical Engineering, Engineering Graphics, C Programming, Communication Skills, Basic Workshop and Laboratory experiments will aid in developing your thinking and reasoning abilities thereby laying a strong foundation for your higher semesters.

We are a team of experienced, dedicated and motivated teachers who will help, guide and mentor you, all throughout your journey. Our team believes in the overall development of its students and engages them through three-fold activities: Academic interactions such as regular lectures, lab sessions, theory Exams, orals/ practical exams; co-curricular activities such as Mini projects, Peer learning, Solvathon etc; Extracurricular activities such as Quiz competitions, Project competitions, Guest lectures etc.

We hope that you will be part of our mission and help us in shaping you into better engineers and better human beings.

Department Events



❖ *The Orientation Programme of First Year Engineering*

An Orientation Program for First Year Engineering students was organized on 16th November 2022 in the Seminar Hall. Around 200 students attended. Among those present were the Director, Fr. Dr. John Rose, the Heads of Departments including Dr. Vidya Sarode, Prof. Meena Ugale, Dr. Vaishali Gaikwad and Prof. Vijay Kapure and the faculty and non-teaching staff of First Year Engineering. The students were briefed about the academic and non-academic facilities and activities offered at XIE. To inspire the current FE students; the toppers of the previous year were felicitated, who also shared their success mantra with the students.



Department events



❖ Placement Orientation Program

The department of Applied Sciences and Humanities (FE) organized a placement orientation seminar for the FE students on Monday, 19th December 2022 during the mentoring slot. The session was held in the Seminar Hall from 1.30-3.30 pm. Almost all the FE students participated and received the session well. In the first half of the session, the students were briefed about the placement process offered at XIE, the eligibility criteria, placement rounds, CTC offered by various companies, etc. by the TPO, Mr. Naveen Kukreja. The second half of the session included tips on Aptitude test, GD, and Resume writing. Furthermore, students were informed about various TPO activities conducted throughout the year viz., Project based trainings and internships. The session concluded with a Q&A session where the students' queries related to placement were addressed.



Co-Curricular Activities



❖ Guest lectures for FE students:

Guest Lectures for Students

- 1. Engineering Chemistry Guest lecture on the topic “Comparison between VSEPR theory and molecular orbital theory” by Mr. Shivam Shukla, on 9th January 2023.*
- 2. Engineering Mechanics Guest lecture on the topic “Instantaneous Center of Rotation” by Dr. Y.D Venkatesh, Principal, XIE on 16th January 2023.*
- 3. Basic Electrical Engineering Guest lecture on the topic “A.C and D.C machines: Overview” by Prof. Mathew, TSEC on 21st January 2023.*
- 4. Engineering Mathematics Guest lecture on the topic “Application of Mathematics” Mr.Rohit Tiwari, project Manager, NIVEUS solutions on 23th January 2023.*
- 5. Engineering Physics Guest lecture on the topic “Applied Physics” by Prof. Shaikh on 30th January 2023.*

Co-Curricular Activities



❖ **Guest lectures for FE students:**

Guest Lectures for Students

6. Engineering Chemistry-II Guest lecture on the topic “Biodiesel: Synthesis, Application and Challenges” by Prof. Shivam Shukla on 10th April 2023

7. Computer programming Guest lecture on the topic “C coding” by Mr. Ishan Waghela on 24th April 2023

8. Professional Communication Skills and Ethics-I Guest lecture on the topic “Professional Communication and Networking” by Ms. Siji Varghese on 15th May 2023

9. Engineering Physics-II Guest lecture on the topic of “The Science of the film Interstellar” by Mr Bhavya Thaker on 22nd May 2023

10. Engineering Mathematics-II Guest lecture on the topic “Application of Mathematics in the technical world“ by Dr. Kunal Meher on 25th May 2023

Academic Achievers



Toppers of Semester I: AY 2022-23

Topper's List					
Sr.No	Rank	Name	Branch	\sum EGP =180	SGPA =10
1	1	Nandy Tushar Malay Tumpa	COMP	176	9.78
2	2	Hadawale Riddhi Ramdas Mangal	COMP	171	9.50
3	3	Tambe Siddhesh Baban Namita	COMP	158	8.78
1	1	Jat Mukesh Devilal Pushpa	EXTC	174	9.67
2	2	Yadav Prabhakar Chitbahal Kalavati	EXTC	158	8.78
3	3	Gawde Shubham Sunil Swati	EXTC	150	8.33
1	1	Vishwakarma Sachin Dharamveer Renu Devi	IT	161	8.94
2	2	Pawar Piyush Balu Rekha	IT	157	8.72
3	3	Moolya Chirag Ravi Hemlata	IT	154	8.56
1	1	Chavan Samarth Satish Sanjivani	CSE	142	7.89
2	2	Chaurasia Jayesh Ramshare Laltidevi	CSE	138	7.67
3	2	Singh Pankaj Dilip Sadhya	CSE	138	7.67
4	3	Pandey Himanshu Santosh Kumar Kiran	CSE	136	7.56
5	3	Surve Siddhesh Prasad Pallavi	CSE	136	7.56

Academic Pursuits of Faculty Members



Vijay Kapure, V.R., Rathod, S.S. A two element EBG-inspired UWB MIMO antenna with triple band notched characteristics and high isolation. *Sādhanā* 48, 7 (2023)
[. https://doi.org/10.1007/s12046-022-02055-2](https://doi.org/10.1007/s12046-022-02055-2)
 (Springer Nature by IAS), 2 nd Jan 2023.

Courses attended by Faculty members

Dr. Bhagyashree Chari	one day workshop on " How to write research proposal	16/07/2022	XIE, Mahim
	one week PDP ON" Advanced Pedagogy	18/07/2022 to 22/07/2022	NITR, CHENNAI
Mr. Vijay Kapure	Faculty development workshop on "Amazon Web Services"	22/08/2023 to 27/08/2023	Department of CSE and IT, Andra and Loyola Institute of Engineering and Technology
	Faculty development workshop on "Cyber Security"	23/01/2023 to 25/01/2023	St Joseph University, St. Joseph Institute of technology, Department of Computer Science
Ms. Anchu Pillai	Faculty development workshop on "Amazon Web Services"	22/08/2023 to 27/08/2023	Department of CSE and IT, Andra and Loyola Institute of Engineering and Technology
	FDP on "Computer Vision in master vision"	17/10/2022 to 21/10/2022	Datta Meghe College of Engineering, Airoli, Navi Mumbai
	Faculty development workshop on "Cyber Security"	23/01/2023 to 25/01/2023	St Joseph University, St. Joseph Institute of technology, Department of Computer Science
Ms Prajakta Subhedar	Advances in polymer processing for sustainable development	18/10/2022 to 16/10/2022	IIT BOMBAY and PCE
Ms. Saniya Gonsalves	ATAL FDP on Stress Management , Art of Living	14/11/2022 to 25/11/2022	SPCE, Mumbai

Students Activities



Name of the student	Details	Certificate	Offered by	Date
Ms. Cecilia Dinesh	Women's Day Poster Making Competition	1st Place	WDC, XIE	8th March 2023
Ms. Cecilia Dinesh	IIC's Poster Making Competition	Winner	IIC, XIE	27th March 2023
Ms. Cecilia Dinesh	Web Development Workshop	Participation	CSX, XIE	January 2023
Mr. Nitin Nayak	C-programming workshop	1st Place	CSX, XIE	24th April 2023
Mr. Piyush Sanap	C-programming workshop	2nd Place	CSX, XIE	24th April 2023
Mr. Pushkar Karekar	C-programming workshop	3rd Place	CSX, XIE	24th April 2023

Department of Applied Sciences and Humanities:



FE-A



FE-B



FE-C



FE-D

