S. B. JAIN INSTITUTE OF TECHNOLOGY MANAGEMENT AND RESEARCH, NAGPUR

Autonomous Institute Affiliated to Rashtrasant Tukdoji Maharaj Nagpur University

TECHINSIGHT

SESSION 2022-23

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Vision

"Emerge as a leading Institute for developing competent and creative Professionals"

Mission

- Providing Quality Infrastructure and experienced faculty for academic excellence.

- Inculcating skills, knowledge and opportunities for competency and creativity.

- Aligning with Industries for knowledge sharing, research and development.

EDITORIAL MESSSAGE

Dear Esteemed Readers,

Welcome to the latest edition of "TechInsight," your window into the dynamic world of Electronics and Telecommunication. In this issue, we embark on a journey through the cutting-edge developments, breakthroughs, and innovations that are shaping our rapidly advancing field.

Our department is at the forefront of technology, and through "TechInsight," we aim to bring you an informed perspective on the exciting possibilities and challenges we face. Whether you are a student, an industry professional, or someone with a keen interest in electronics and telecommunication, we have tailored this magazine to cater to your curiosity and thirst for knowledge.

Our dedicated team of writers, researchers, and contributors has poured their passion into this issue. From technical deep dives into emerging communication protocols and semiconductor technologies to interviews with influential figures who are driving change in our field, "TechInsight" strives to be your go-to source for information, inspiration, and insight.

We invite you to actively engage with our magazine. Share your feedback, suggestions, and, most importantly, your own contributions. The Electronics and Telecommunication Department is a vibrant and ever-evolving community, and "TechInsight" is here to connect, inform, and inspire.

As we move forward, our commitment remains unwavering - to illuminate the path ahead and explore the limitless potential of Electronics and Telecommunication. We are here to celebrate our achievements, discuss our challenges, and collectively look toward a brighter, more connected future. We hope you find this issue informative and engaging, and we look forward to the exciting journey ahead, together. To facilitate your participation, we have set up dedicated channels to receive your feedback and contributions.

Please feel free to email us at editor.techinsight@gmail.com with your suggestions, ideas, or any content you would like to contribute. We will review and consider each submission carefully, and our team will be in touch with you regarding the next steps.
Thank you for being an integral part of the "TechInsight" community.

Warm regards,
Editorial Board
Department of Electronics and Telecommunication Engineering
S. B. Jain institute of Technology, Management and Research,
Nagpur

EDITORIAL TEAM

HEAD OF DEPARTMENT	:	DR. ABHAY KASETWAR
NEWSLETTER IN-CHARGE	:	PROF. AYUSHI S. JAISWAL
		PROF. CHAITALI A. DARODE
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CO-EDITORS	:	MS. SUHANI BODELE
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		MR. ANUJ GAJBHIYE (NON-TECHNICAL)
		MS. ROSE MOTIKAR (ART)
		MS. PRANOTI (PR)
COVER PAGE CONCEPT	:	MS. CHAITALI UKE
MEMBERS	:	MS. GAYTRI NAGPURE
		MS. KRUTIKA PUNPREDDIWAR

CONTENT

GRATITUDE

In the loving memories of late Shri Shantilal Badjate

Late Shri. Shantilal Badjate

(20.05.1935 – 09.06.2020)

Shantilal Badjate founded the Badjate Group in 1965, a conglomerate that has diversified into various businesses, including the field of education. In 2006, they launched Jain International School, Nagpur, followed by the S.B. Jain Institute of Technology, Management, and Research in 2008, and Little Jewels Kindergarten in 2010. Shantilal Badjate, a scholar, teacher, social worker, and philanthropist, began his professional career as a professor of Accounts at Nagpur's G.S. College, leaving an indelible mark by making complex subjects like Taxation engaging for his students.

Shantilal Badjate was not only an exceptional educator but also a symbol of courage and resilience, contributing significantly to society's upliftment. His unwavering dedication and hard work allowed him to turn ordinary ideas into extraordinary achievements, earning him the well-deserved reputation of an exemplary figure. He personified the saying, "Extraordinary people do ordinary things in an extraordinary way, making them look rare and exemplary."

MESSAGE FROM THE PRESIDENT

Dear Students,

S. B. Jain Institute of Technology, Management & Research is an attempt of the group to create a world class institute where students can be groomed into technically sound leaders who can design and drive the production of goods and services. It exemplifies the belief that an institute is not just a place for promoting academic excellence based on rote learning but promoting academic and logic behind each subject

The pool of talent in the form of the faculty is trained to take care of each and every aspect of the development of the student, various forums and special cells provide a platform for the students to do and learn and interact with stalwarts from all walks of life, the international standard sports complex helps develop a healthy body in which a healthy mind can reside, the 8000 sq feet mess serving hygienic meals and snacks and the upcoming 5 star multi-cuisine cafeteria as well as the lush green campus makes the college life of our students a life time experience, and the end result of this holistic educational experience is jobs by good corporates and creation of entrepreneurs who are capable of promoting and nurturing their own enterprise.

Mr. Anuj Badjate
The President

MESSAGE FROM THE CEO

Dear Students

The lightning speed of technological advancement and the information revolution have opened new series of challenges as well as opportunities. The ability to innovate and the capacity to adapt to latest technologies are going to be the forte in the new century. India's cherished vision to become the super power can only be attained by its large high quality human power.

The educational institutions especially those imparting technical education have to take the responsibility of developing
and nurturing the world class engineers, technologists and managers.

S. B. Jain Institute of Technology, Management and Research has proudly stepped into a legacy of contributing to nation's development by a promise to produce highly skilled Engineers and Managers for many years to come.

The institution has been carved out and erected by Visionaries of independent India who take a pride of place in today's and tomorrow's globalized ethos of The faculty is renowned, infrastructure is professionally sound and students technology and management. are committed to the cause of learning. I wish to assure all concerned that no efforts will be spared to bring S. B. Jain Institute of Technology, Management and Research on the world map among the top technical education institutions. We will produce Engineers and Managers who can operate efficiently across the globe, who can excel in a multicultural environment, and who can negotiate confidently across cultures. Further, we will benchmark ourselves on a global scale with the best Engineering and Management education institutions, and become the institution-of choice for the best students from not only India but also the most advanced countries in the world. This is a big challenge indeed. Knowing the great faculty we have, I have no doubt that this objective will be achieved and exceeded. Best Wishes!

Mr. Sanjeev Agrawal
The CEO

MESSAGE FROM THE PRINCIPLE

PRINCIPAL

Dear,

Technical as well as management Education is the backbone of every nation and is the stepping stone for a country to move into the niche of a developed nation. At S.B Jain Institute of Technology, Management & Research (SBJITMR) Nagpur, We have a tradition of nurturing value based education & developing capabilities to challenge the state of art technologies. SBJITMR lets you empower yourself with sound knowledge, wisdom, experience and training both at the academic level of Engineering and in the highly competitive global industrial market.

The infrastructure facilities and state-of- the-art equipment's combined with a galaxy of competent, talented and dedicated faculty contribute to an enjoyable and an easy learning experience. This we do by inspiring you to involve into a whole lot of innovative & creative projects being pursued by the inspired student community under the guidance of their faculty mentors.

The motto of S.B. Jain institute is overall development that nurtures students towards becoming strong and focused human beings & have a true leadership qualities. Soft skills and educational skills is what the institution seeks to provide every student at the campus itself through its ingenious teaching - training pedagogy.

We wish the best for all our students, and the members of the institution who reiterate their aims at providing the best in academic and extra-curricular fields

"A desire can change nothing, a decision can change something but a determination can change everything"

"Best Wishes"
Dr. S. L. Badjate
PRINCIPAL

MESSAGE FROM HOD

Dear,

Over the past two decades, Electronics & Telecommunication engineering has played a pivotal role in improving quality of human life and also contributed to the economic growth of our nation and the world at large. The primary objective of the department is to ensure good academic environment for all the students. The main emphasis is given on the overall development of the students to shape the professional career of the students as technocrat / techno manager. To bridge the gap between curriculum and industry requirement, the students are exposed to practical knowledge.

The department supports production of in-house kits and we take utmost care that students get more hands-on with self-design and implementation of circuits and projects. Our Electronics Devices and Circuits lab, Analog Circuit Design lab, Embedded and Electrical labs are currently equipped with our own designed kits. The department encourages students/researchers to carry out innovative research to match the needs of the technical education system, the industry and our society. The Department has signed MoUs with various organizations to provide live projects for UG and PG final year students in the field of DSP, VLSI, Embedded Systems, and Communication Systems etc. Regular Industrial

visits, workshops, internships and mini-projects are organized for students. Presently, the department has well-qualified faculty members who have made significant contribution in various fields and have published research papers in reputed journals, international and national conferences. We encourage participation of students in various co-curricular and extra-curricular activities as well. Welcome to the Department of Electronics & Telecommunication Engineering where we hope you will be able to explore your full potential as a student and eventually make a remarkable mark in your professional life.

Dr. Abhay Kasetwar
HOD, ETC

DEPATMENTAL NEWSLETTER

DEPARETMENTAL OVERVIEW
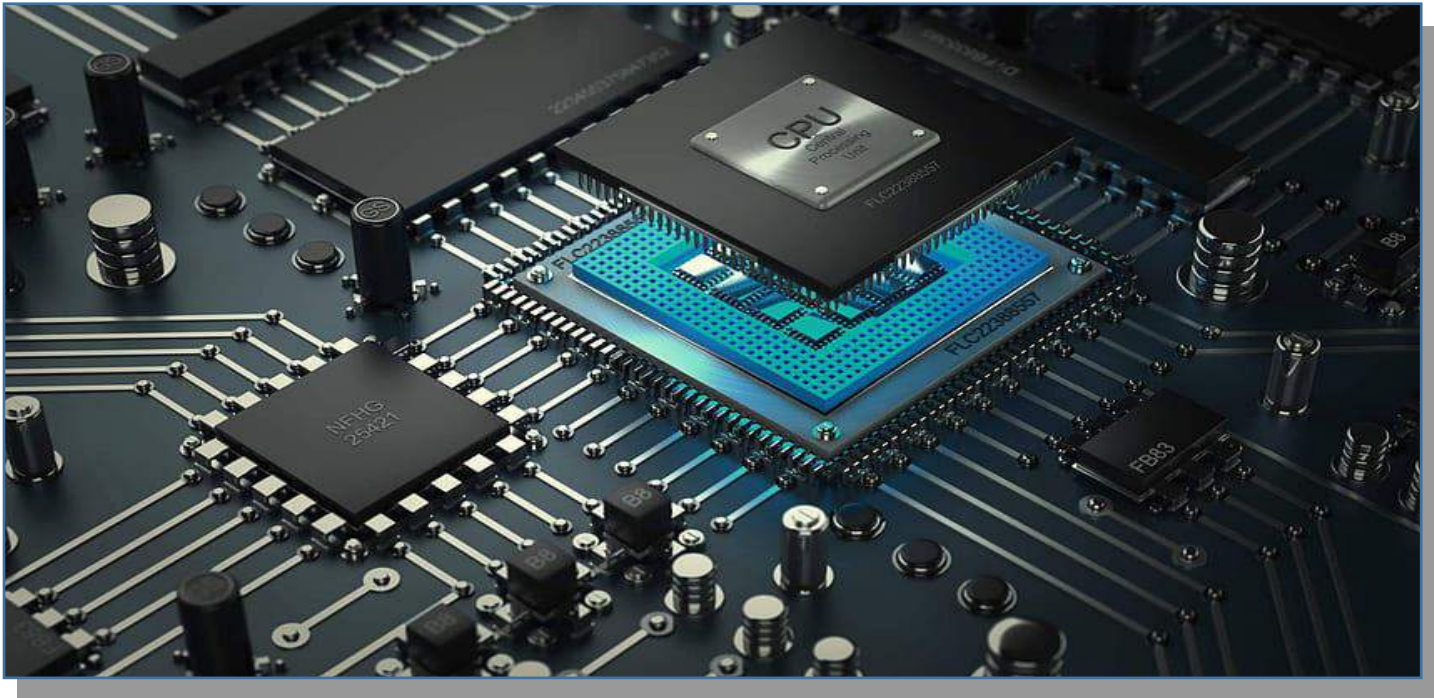
Overview

Electronics and Telecommunication is a versatile branch having applications in Industrial Automation, Telecommunication Industries, Chip and ASIC Designing, Mobile Technology, Multimedia & Video Processing, Artificial Intelligence, Biomedical Instrumentation, Nuclear & Power Sector, Satellite Communication, Remote Sensing, Defence Applications and many more.

The world is marching towards digitization and Government of India has taken an Initiative in that direction. The Electronics and Telecommunication engineer will play a vital role in realization of Digital India Concept.

Department of Electronics and Telecommunication Engineering provide an exposure to students by giving knowledge about all the domains to make them capable Technocrats.

Vision

Emerge as a center for quality education in Electronics & Telecommunication Engineering, so as to create competent professionals.

Mission

1. To offer quality graduate program in Electronics & Telecommunication Engineering aimed at fulfilling the needs of society and industry.
2. To impart skills and develop scientific temper to solve complex technological problems of current times.
3. To nurture ethics, talent and entrepreneurship to inculcate professional development of students.

TEACHING FACULTY MEMBERS

Sr. No	Name	Qualification	Area of Specialization	Designation
1	Dr. Sanjay L. Badjate	Ph.D	Digital Techniques and Instrumentation	Professor
2	Dr. Abhay R. Kasetwar	Ph.D	Electronics Engineering	Professor
3	Dr. Khushi Sindhi	Ph.D	Electronics and Communication Engineering	Associate Professor
4	Dr. Mohammad Waseem Khanooni	Ph.D	Electronics Engineering	Assistant Professor
5	Dr. Rahul Pethe	Ph.D	Electronics Engineering	Assistant Professor
6	Mr. Vivek Deshmukh	M.Tech	Electronics Engineering	Assistant Professor
7	Mr. Mohammed Waseem Akram	M.Tech	Integrated Power System	Assistant Professor
8	Ms. Ayushi Jaiswal	M.E	Embedded system and Computing	Assistant Professor
9	Prof. Sagar Pradhan	M.E	Communication Network	Assistant Professor
10	Mr. Mayur Tembhurney	M.Tech	Digital Communication	Assistant Professor
11	Ms. Anuprita Kale	M.Tech	Electronics Engineering	Assistant Professor
12	Dr. Vicky Butram	Ph.D	Micro Electro Mechanical Systems	Assistant Professor
13	Prof. Shailesh Sakhare	M. Tech.	Electronics Engineering	Assistant Professor
14	Prof. Vijeta Hegde	M.Tech.	Electronics Engineering	Assistant Professor
15	Dr. Parag Puranik	Ph.D	Electronics and Communication	Assistant Professor
16	Ms. Natasha Bindal	M.Tech	Electronics Engineering	Assistant Professor
17	Prof. Chaitali Darode	M.Tech	Electronics Engineering	Assistant Professor
18	Prof. Snehal Kakde	M.Tech	VLSI	Assistant Professor
19	Prof. Irfan Javed	M.Tech.	VLSI	Assistant Professor
20	Prof. Nitin Khadane	M.Tech.	Electronics Engineering	Assistant Professor

NON- TEACHING STAFF DETAILS

Sr. No	Name	Designation	Qualification	Certification skill if any
1	Mr. Sunil Punde	Laboratory Assistant	ITI, Electronics	-
2	Mr. Abhishek Shambharkar	Laboratory Assistant	B.Sc., Computer Science	Computer Hardware Maintenance
3	Mr. Lokesh Wasu	Laboratory Assistant	ITI, Electronics	-
4	Mr. Praful Padole	Office Clerk	M.Lib. Pursuing	-
5	Ms. Sumati Kamlekar	Clerk	BA	MSCIT, ITI

Details of Research Publication

Sr.No.	Name of the Faculty	Title of Publication	Title of Conference/Journal	Date of publication	Volume/Issue	ISSN/ISBN	Indexing/Impact factor as on journal website
1	Dr. Abhay Kasetwar Dr. Rahul Pethe Dr. Trupti Nagrare Dr. Mohammed Waseem Khanooni Mr. Sagar Pradhan	Cellular Automata Based 2D On-Chip Router for Power & Delay-Aware Operations	International Journal of Electrical and Electronics Engineering	Jul-2023	Volume 10 Issue 7	ISSN: 2348-8379	Scopus
2	Dr. Rahul Pethe Dr. Abhay Kasetwar	Lifetime Maximization Protocol for Energy Efficient Wireless Sensor Network	European Chemical Bulletein	Jun-2023	12 , Special Issue 5	ISSN 2063-5346	Scopus
3	Mr. Sagar Pradhan Dr. Abhay Kasetwar	Empirical study on WSN based performance evaluation of forest fire wether index using statistical inference	European Chemical Bulletin	Jun-2023	12 (Special Issue 5)	ISSN 2063-5346	Scopus

Sr No	Name	Title	Journal	Date	Volume/Issue	ISSN	Indexing
4	Dr. Abhay Kasetwar / Mr. Sagar Pradhan / Dr. Trupti Nagrare	Design of an Efficient Genetic Algorithm Model for Electric Load Balancing over Distributed Environments	International Journal of Electrical and Electronics Engineering	Jun-2023	Volume 10 Issue 6, 11 4-119	ISSN: 2348-8379	Scopus
5	Dr. Khushi Sindhi	Alumina tunnel contact based lateral spin-Field effect transistor	Materials Science and Engineering Elsevier	Dec-2022	Volume 286	ISSN:0921-5107	SCI & Scopus /IF: 6.4

Faculty Certification Course Details						
Sr. No.	Name of Faculty Members	Technical				
		Title of certification course	Agency	Start Date	End Date / (Expected date)	Course Duration
1	Dr. Khushi Sindhi	NBA Accreditation and Teaching and Learning in Engineering(NATE)	NPTEL-AICTE	Jan-22	April-22	12 Weeks
2	Prof. Waseem Akram	Control Engineering	NPTEL-AICTE	Jan-22	April-22	12 Weeks
3	Dr.Trupti Nagrare	Build a Website with HTML,CSS, and Github Pages Skill Path	Code Academy	Jan-22	Jan-22	15 Days
4	Prof. Pravin Pradhi	Build a Website with HTML,CSS, and Github Pages Skill Path	Code Academy	Jan-22	Jan-22	15 Days
5	Prof. Sheetal Mungale	Build a Website with HTML,CSS, and Github Pages Skill Path	Code Academy	Jan-22	Jan-22	15 Days
6	Prof. Hitesh Gehani	Build a Website with HTML,CSS, and Github Pages Skill Path	Code Academy	Jan-22	Jan-22	15 Days

7	Prof. Ashwini Anjikar	Build a Website with HTML,CSS, and Github Pages Skill Path	Code Academy	Jan-22	Jan-22	15 Days
8	Prof. Shailesh Sakhare	Design And Analysis Of Microwave Antennas Using HFSS Phase-I	IEEE MTT-S Vardhaman student chapter, Department of ECE, Vardhaman College of Engineering (Autonomous), Hyderabad	Jun-26	Jul-01	6 Days
9	Prof.Shailesh Sakhare	IEEE Authorship: Tips and Best practices to get published	IEEE	Jun-26	Jun-27	1 Day
10	Prof. Sagar Pradhan	Design of High Frequency Antenna for Real Time Applications.	GMR Institute of Technology and V R Siddhartha Engineering College	Mar-14	Mar-18	5 Days
11	Dr. Trupti Nagrare	IoT & Drone	S.B. Jain Institute of technology, Management and Research	Feb-27	Mar-4	6 Days
12	Dr. Trupti Nagrare	Data Analytics with python	NPTEL	Jan-1	Apr-1	12 Weeks
13	Prof. Pravin Pardhi	The Joy of computing using Python	NPTEL	Jan-1	Apr-1	12 Weeks
14	Prof. Pravin Pardhi	Problem solving through Programming in C	NPTEL	Jan-1	Apr-1	12 Weeks
15	Prof.Mayur Tembhurney	The Joy of computing using Python	NPTEL	Jan - 1	Apr-1	12 Weeks
16	Dr. Khushi Sindhi	Two days Online Training Programme on "Patent filing process in India/ International Patent	Rajiv Gandhi National Institute of	Nov - 18	Nov - 19	2 Days

		application PCT filing process & Conventional Patent application"	Intellectual Property Management (RGNIIPM), Nagpur			
17	Mr. Nitin Chakole	Role Of IQAC in Quality Enhancement & Sustainability	NAAC Sponsored, Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur.	Oct - 14	Oct - 15	2 Days
18	Mr. Nitin Chakole	Sustaining Quality Culture in Autonomous Institutions: Impact and Challenges	Jhulelal Institute of Technology ,Nagpur.	Sept - 21	Sept - 22	2 Days
19	Mrs. Sheetal Mungale	Sustaining Quality Culture in Autonomous Institutions: Impact and Challenges	Jhulelal Institute of Technology ,Nagpur.	Sept - 21	Sept - 22	2 Days
20	Dr. Khushi Sindhi	Two Day Workshop on Reimagining Higher Education for development and Empowerment: Teaching, Research and Innovation	Shri Ramdeobaba College of Engineering and Management, Nagpur	Aug - 29	Aug - 30	2 Days
21	Mrs. Sheetal Mungale	Two Day Workshop on Reimagining Higher Education for development and Empowerment: Teaching, Research and Innovation	Shri Ramdeobaba College of Engineering and Management, Nagpur	Aug - 29	Aug - 30	2 Days
22	Mr.Hitesh Gehani	Innovation, Entrepreneurship and IPR	IIC and NEEV, First Year Engineering Department. SBJITMR	Aug - 22	Aug - 26	5 Days
23	Dr. Trupti Nagrare	The Joy of computing using Python	NPTEL	July - 25	Oct - 14	12 Weeks

24	Dr. Trupti Nagrare	Problem solving through Programming in C	NPTEL	July - 25	Oct - 14	12 Weeks
25	Dr. Neetu Gyanchandani	FDP on Face to Face UHV-II	AICTE	July - 26	July - 30	5 Days
26	Mrs. Ashwini Anjikar	FDP on Face to Face UHV-II	AICTE	July - 26	July - 30	5 Days
27	Mrs. Sheetal Mungale	FDP on Face to Face UHV-II	AICTE	July - 26	July - 30	5 Days
28	Dr. Trupti Nagrare	Recent Trends and Research Areas in Electronics, Electrical and Computer Engineering	AICTE	July - 26	July - 30	5 Days
29	Mrs. Sheetal Mungale	Two day training programme on "Patent filing in India/International Patent application PCT filing process & Conventional Patent application"	Rajiv Gandhi National Institute of Intellectual property Management(RGNIIPM), Nagpur	July - 18	July - 19	2 Days
30	Mr. Vivek Deshmukh	Recent Trends and Advances in Communication, Signal Processing and Machine Learning	VNIT, Nagpur	July - 11	July - 15	5 days
29	Prof. Nitin Chakole	Build a Website with HTML,CSS, and Github Pages Skill Path	Code Academy	Jan-22	Jan-22	15 Days

Resource Person/ Expert Talk

Sr. No.	Academic Year	Name of the Event	Name of the Expert	Designation and Association	Associated with the Institute (Through MOU or as Adjunct Faculty)	Duration/Date	Number of Hours
1	2022-23	ValueAdded Course- Web Development	Mr. Akash Verma	Trainer, Royalweb Tech,nagpur	Through MoU	07/12/2022 Onwards	30
2	2022-23	Expert Talk on "Innovations in Banking Sector"	Mr. Dhruv Malik	Specialist Software Engineer,Societe Generale Bengaluru, Karnataka	No	31/12/2022	1
3	2022-23	Seminar on "Corporates Ethics to become a successful Entrepreneur"	Mr.Ankit Pravin Hiware	Instructor, ILA Hiring Technologies Pvt Ltd, Ahmedabad	No	23/11/2022	1
4	2022-23	Seminar on "Career guidance on Abroad studies"	Ms. Sarita Bhattacharya,	Branch Manager, IDP Nagpur	No	06/08/2022	1
5	2022-23	Youth for Nation- A session on sensitizing social issues & AIDS awareness	Mr. Kshitij Gupta	Assistant Professor, IIT Powai , Bombay	No	23/02/2023	1
6	2022-23	Expert talk on Innovation in Modern Industrial Applications using digital circuits(In Nagpur Metro)	Mr. Vijay Matta	System Engineer, Maha Metro Nagpur	No	19/01/2023	1
7	2022-23	Expert Talk on microcontroller system leads to	Mr. Vijay Matta	System Engineer, Maha Metro Nagpur	No	19/01/2023	1

		innovation					
8	2022-23	Expert talk on "Exploring Pathways: Unlocking Success Through Internships	Mr. Animesh Tayal,	Founder,CodeMate IT Services, Nagpur	No	22/05/2023	1
9	2022-23	Seminar on "Using Technology for Global Visibility through LinkedIn	Mr. Rohan Sai	Mentor , FACE Prep, Bangalore	No	16/05/2023	1
10	2022-23	Expert talk on "Unlocking your potential: Exploring the benefits and challenges of pursuing higher studies	Mr. Dewang Darode	Robotics Control & Testing Engineer,BEC GmbH, Germany	No	17/03/2023	1
11	2022-23	Competition " IDEATRON 2K23 – An opportunity to present innovative Ideas"	Mr. Nikhil Malusare, Mr. Sharad Bansod	Director, Electrus Technology Pvt. Ltd. Nagpur and Director, Softbuzz, Nagpur	No	15/09/2022	1
12	2022-23	Seminar on "Corporate Email Etiquette and Business Communication "	Mr. Allan I. Abraham	Founder and Director, Align Infotech Pvt. Ltd. Nagpur	Through MoU	24/08/2022	1
13	2022-23	Seminar on "My Story-Innovator's life and crossroad motivational	Mr. Ravindra R Misal	Founder and Director of MAPS Umred	No	23/08/2022	1

		speak"					
14	2022-23	Seminar on "Interpersonal Skills and Resume Building"	Mr. Ankit Pravin Hiware	Co-Founder and COO ILA Hiring Technologies Pvt. Ltd, Ahmedabad	No	20/08/2022	1
15	2022-23	Seminar on "Mastering Your Career: Best Practices for Achieving Your Goals"	Mr. Hitesh Devani	Founder, HR Mentor, Nagpur	No	15/03/2023	1
16	2022-23	A seminar on "Get your dream job using LinkedIn"	Mr. Rohan Sai	Mentor , FACE Prep, Bangalore	No	04/05/2023	2

Patent/ Copyrights Details

Sr. No.	Academic Year	Name of Researcher	Patent/Copyright Details
1	2022-23	Prof Nitin Chakole	Copyright Registered: Fire Fighting Drone For Forest And Industrial Area **ROC Number**: L-118216/2022

STTP/WORKSHOP/FDP/SYMPOSIA ATTENDED By Faculty Members
Session 2022-23

S.N.	Name of the Faculty	Name of the FDP/Training/STTP Attended	Dates	No. of Days	Organized by
1	Mr. Shailesh Sakhare	Design And Analysis Of Microwave Antennas Using HFSS Phase-I	26 Jun-01 Jul 2023	6	IEEE MTT-S Vardhaman student chapter, Department of ECE, Vardhaman College of Engineering (Autonomous), Hyderabad
2	Mr. Shailesh Sakhare	IEEE Authorship: Tips and Best practices to get published	26-Jun-23	1	IEEE
3	Mr. Sagar Pradhan	Design of High Frequency Antenna for Real Time Applications	14 March -18 March 2023	5	GMR Institute of Technology and V R Siddhartha Engineering College
4	Dr. Trupti Nagrare	IoT & Drone	27 Feb- 4 March 2023	6	S.B. Jain Institute of technology, Management and Research
5	Dr. Trupti Nagrare	Data Analytics with python	Jan - April 2023	12 Weeks	NPTEL
6	Mr. Pravin Pardhi	The Joy of computing using Python	Jan - April 2023	12 Weeks	NPTEL
7	Mr. Pravin Pardhi	Problem solving through Programming in C	Jan - April 2023	12 Weeks	NPTEL
8	Mr. Mayur Tembhurney	The Joy of computing using Python	Jan - April 2023	12 Weeks	NPTEL
9	Dr. Khushi Sindhi	Two days Online Training Programme on "Patent filing process in India/ International Patent application PCT filing process & Conventional Patent application"	18 Nov -19 Nov 2022	2	Rajiv Gandhi National Institute of Intellectual Property Management (RGNIIPM), Nagpur
10	Mr. Nitin Chakole	Role Of IQAC in Quality Enhancement & Sustainability	14 Oct -15 Oct 2022	2	NAAC Sponsored, Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur.

| 11 | Mr. Nitin Chakole | Sustaining Quality Culture in Autonomous Institutions: Impact and Challenges | 21 Sept -22 Sept2022 | 2 | Jhulelal Institute of Technology,Nagpur. |
| 12 | Mrs. Sheetal Mungale | Sustaining Quality Culture in Autonomous Institutions: Impact and Challenges | 21 Sept -22 Sept 2022 | 2 | Jhulelal Institute of Technology,Nagpur. |

Academic Achievements/ PHDs

Sr. No.	Year	Name of Faculty	Details of Academic Achievements/ PHDs
1	2022	Dr. Vicky Butram	Awarded Ph.D. in Electronics & Communication Engineering by National Institute of Technology, Raipur

BOOKS/BOOKS CHAPTER PUBLICATION BY FACULTIES

Sr. No.	Title of Book	Publisher	Author	Year
1	Mathematical modelling of heat transfer performance of heat exchanger using nanofluids	CRC Press	Dr. Neetu Gyanchandani	2023

MOU Signed During the Session 2022-23

Sr. No.	Name of Company	Start Date	End Date	Period
1	Incubation Center RTMNU Naagpur	30/09/2023	1/10/2026	3 years
2	ICEICO Technoligies Pvt. Ltd. Nagpur	24/5/2023	23/5/2026	3 Years
3	YBI Foundation	9/5/2023	8/5/2026	3 Years
4	3.O University	9/5/2023	8/5/2026	3 Years

STUDENTS
ACHIVEMENT

List of Toppers

Merit No.	Name of Student	Semester
2022-23 (EVEN)		
1	Nidhi Deorao Shewale	VIII
2	Nihal Prashant Sakhare	VIII
3	Mrunal Avinash Raut	VIII
1	Akanksha Ashok Mahile	VI
2	Yashashri Onkar Dalvi	VI
3	Vaishnavi Vilas Wankhede	VI
1	Ayush Pramod Patil	IV
2	Krutika Umesh Punpreddiwar	IV
3	Vanshika Vinod Dhole	IV
2022-23 (ODD)		
1	Mrunal Avinash Raut	VII
2	Minal Bablesh Jivnapurkar	VII
3	Nihal Prashant Sakhare	VII
1	Akanksha Ashok Mahile	V
2	Yashashri Onkar Dalvi	V
3	Prajakta Shegaonkar	V
1	Ayush Pramod Patil	III
2	Krutika Umesh Punpreddiwar	III
3	Praful Sawarkar	III

Campus Selection of 2023 Batch till Date

Placement List

Sr. No.	Full Name	Company	Letter with Reference No. & Date
1	Adwait Abhay Borikar	Blueberry Semiconductor	Letter by Blueberry Semiconductor dated 13th March,2023
2	Akshat Agrawal	Blueberry Semiconductor	Letter by Blueberry Semiconductor dated 13th March,2023
3	Devesh Jangade	Amla Commerce	
4	Gaurav Rewaskar	TCS	TCSL/DT20223026844/PUNE Dated28/12/2022
5	Gayatri Dhakhate	CEAT	CEAT dated 1st April,2021
6	Khushi Tekade	Zappkode	ZS/HR/OL/2023-24 dated 21st April,2023
7	Madhur Motghare	Fendahl	Fendahl dated 1st Sep,2022
8	Mahevish Ahmed	Acmegrade	Acmegrade dated 11th may,2023
9	Minal Jivnapurkar	Nice Software	Nice Software, 28th April,2023
10	Mrunal Avinash Raut	TCS	TCSL/DT20222972666/PUNE Dated24/11/2022
11	Nidhi Rambhau Fulare	Blueberry Semiconductor	Letter by Blueberry Semiconductor dated 13th March,2023
12	Nidhi Deorao Shewale	Blueberry Semiconductor	Letter by Blueberry Semiconductor dated 13th March,2023
13	Nidhi Wankhade	Blueberry Semiconductor	Letter by Blueberry Semiconductor dated 13th March,2023
14	Nihal Prashant Sakhare	TCS	TCSL/DT20223149649/PUNE Dated24/11/2022
15	Nirmal Nandakumar	Hexaware	Letter by Hexaware, 20th Oct,2022
16	Nishant Srivastav	Nice Software	Letter by Nice Software, 28th April,2023
17	Palek Patel	Quizaro	OLNO:QZE230580,2th May,2023
18	Papita RamdasThakre	Blueberry Semiconductor	Letter by Blueberry Semiconductor , 13th March,2023
19	Prachi Pravin Dhoke	PINCLICK	PINCLICK dated 4th Jan,2023
20	Prajakta Aakojwar	Blueberry Semiconductor	Blueberry Semiconductor dated 13th March,2023
21	Pranali Borkar	TCS	TCSL/DT20223050280/PUNE Dated 24/11/2022
22	Pratik Sahare	Indian OliSkytanking Pvt. Ltd	
23	Rijul Chandel	Palle Technologies	Letter by Palle Technologies dated 08th May,2023

24	Rutuja Kadu	Palle Technologies	Letter by Palle Technologies dated 08th May,2023
25	Sahil Tonge	Blueberry Semiconductor	Letter by Blueberry Semiconductor dated 13th March,2023
26	Samiksha Ashok Raut	Hotel Key	
27	SANIDHYA UKEY	PINCLICK	PINCLICK dated 4th Jan,2023
28	Shubham Pardhi	Property Pistol	Property Pistol dated 7th June,2023
29	Tejas Kishor Gedam	Blueberry Semiconductor	Letter by Blueberry Semiconductor dated 13th March,2023
30	Yash Shingarwade	Paytm Services	PSPL/2023/OF/*7385/SalesExecutive-22 Sep,2023

FEETA
ISF
TECHNOMASTER
SANKALP
ASPIRE

FEETA/SANKALP COMMITTEE 2022-2023

Sr.No.	Name	Designation	Position	Year	Section
1	**Venkat Reddy**	**President**		**III**	**A**
2	**Atharv Ganer**	**Vice President**		**III**	**A**
3	**Akanksha Mahile**	**Secretary**		**III**	**A**
4	**Pranav Shahakar**	**Joint Secretary**	Office Bearers	**II**	**-**
5	**Anuj Manwatkar**	**Treasure**		**III**	**A**
6	**Tanmay Varadpande**			**III**	**B**
7	**Omkar Bhavik**	**Joint Treasurer**		**II**	**-**
8	Isha Manwatkar	Event Manager		III	A
9	Anurag Jadhav	Technical Head		III	B
10	Mayur Sahare			III	A
11	Tanushri Shrikhande	Decoration Head		III	B
12	Rutuja Sontakke			III	B
13	Triyesha Yadav			III	B
14	Apurva Jadhav	Cultural Head	Members	III	A
15	Chaitali Ingale			III	A
16	Rakshita Sodekar	Public Relation Officer PRO/ Invitation & reception Head		III	A
17	Amisha Somkuwar			III	B
18	Bhavesh Paunikar	Sports Head		III	A
19	Ashish Sadawarti	Media Head		III	A
20	Aditya Arya	Discipline Head		III	A
21	Sahil Choudhary			III	A
22	Kashyak Khobragade			III	A

23	Ingit Kamdi	Joint Event Manager		II	-
24	Yash Pardhi	Joint Technical Head		II	-
25	Buddhesh Shamkuwar			II	-
26	Pravaja Meshram	Joint Cultural Head		II	-
27	Vanshika Dhole			II	-
28	Bhumika Gurav	Joint Decoration Head		II	-
29	Alisha Madke			II	-
30	Gayatri Nagpure			II	-
31	Harshal Tikle	Joint Invitation And Reception/PRO Head		II	-
32	Harshal warukar			II	-
33	Udav Patne	Joint Sports Head		II	-
34	Vivek Singh			II	-
35	Chetan Kothekar	Joint Discipline Head		II	-
36	Dhruv More			II	-
37	Harshada Nimbalkar	Joint Media Head		II	-
38	Saksham Nikhare			II	-
39	Sachi Dongre	Student Co-ordinators		II	-
40	Darshan Wajurkar			II	-

Sr. No.	Name of Professional Body/Chapter	Establishment Year
1	Institution of Electronics and Telecommunication Engineers Students Forum (ISF)	2013-14
2	Future Electronics Engineering Technocrat Association (FEETA)	2009-10
3	TechnoMaster	2019-20
4	Sankalp	2019-20
5	Aspire Club	2019-20

Events Organized By Professional Societies/Chapters : ISF					
Sr. No.	Academic Year (Session)	Name of Event	Date	Semester	No. of Participants
1		Company Visit to Blueberry Semiconductor	27/01/2023	IV/VII	22
2		Expert talk on Innovation in Modern Industrial Applications using digital circuits(In Nagpur Metro)	19/01/2023	II/III	63
3	2022-23 (ODD)	Expert Talk on microcontroller system leads to innovation	19/01/2023	III/V	124
4		Expert Talk on "Website design strategies- step to become entrepreneur"	22/11/2022	II/III	54
5		Session on "Experts for mentorship support- Manage through YUKTI- NIR"	18/11/2022	III/V	44

6		Online quiz competition "Quantitative Aptitude"	23/09/2022	Intercollegiate	7
7		Seminar on Intellectual Property Rights	29/08/2022	IV/VII	42
8	2022-23 (EVEN)	Expert talk on "Exploring Pathways: Unlocking Success Through Internships"	22/05/2023	IV	57
9		Seminar on "Using Technology for Global Visibility through LinkedIn	16/05/2023	IV	64
10		Workshop on "Innovative exposure on EIIoT-4.0	11/05/2023 to 12/05/2023	IV	54
11		Expert talk on "Unlocking your potential: Exploring the benefits and challenges of pursuing higher studies	17/03/2023	VI	74
12		Code Clash: The Innovative Edition	04/03/2023	IV,VI,	50
13		Expert talk on "Exploring Pathways: Unlocking Success Through Internships	22/05/2023	IV	57

Events Organized By Professional Societies/Chapters : FEETA					
Sr. No.	Academic Year (Session)	Name of Event	Date	Year/ Semester	No. of Participants
1	2022-23 (ODD)	Speech Competition on occasion of Youth Day	12/01/2023	II,III,IV/III,V,VII	33
2		Expert Talk on "Innovations in Banking Sector"	31/12/2022	III/V	45
3		Blood Donation & Health check up Camp	20/12/2022	Intercollegiate II,III,IV/III,V,VII	80
4		Seminar on "Corporates Ethics to become a successful Entrepreneur"	23/11/2022	III/V	114
5		Expert Talk on "Entrepreneur: Challenges, Business ideas & opportunities"	19/11/2022	III/V	58
6		Seminar on "Career guidance on Abroad studies"	06/08/2022	IV/VII	82
7	2022-23 (EVEN)	Seminar on "How To Ace Your Self Introduction in Interview!"	29/03/2023	III/VI	107
8		"Health Hygiene survey" & "Swachh Bharat Abhiyan	24/02/2023	II,III/IV,VI	11
9		Youth for Nation- A session	23/02/2023	II/IV	41

		on sensitizing social issues & AIDS awareness			
10		Seminar on Financial Assistance for small business and startups	22/02/2023	IV/VIII	63
11		Workshop on Design Thinking, Critical Thinking and Innovation Design	21/02/2023	IV/VIII	67
12		Workshop on "Art of Writing a Research Paper"	16/02/2023	IV/VIII	67

PARTICIPATION IN INTER- INSTITUTE EVENTS BY STUDENTS OF THE PROGRAM OF STUDY (AT OTHERINSTITUTIONS)

Sr. No.	Academic Session	Name of Students	Year & Semester	Name of Event	Organizing Institute	Date
1	2022-23	AyushDadwe	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
2	2022-23	Mayur Hitesh Sahare	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
3	2022-23	EktaNamodNagrale	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
4	2022-23	JanhviRakeshPardeshi	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
5	2022-23	AnchalPatil	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
6	2022-23	AkankshaWamanGotmare	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
7	2022-23	AkankshaAshok Mahile	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
8	2022-23	AkanshaMarotiNikhare	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
9	2022-23	AadeshMotghare	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
10	2022-23	AniruddhaAvinashBhimte	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022

11	2022-23	IshikaMeshram	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
12	2022-23	Harsh VinodMahobiya	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
13	2022-23	TanviYashwant Ramteke	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
14	2022-23	Ashish Anil Sadavarti	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
15	2022-23	PranayChahande	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
16	2022-23	AlveenaTahreem	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
17	2022-23	SushilHumne	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
18	2022-23	Yogesh Anil Barapatre	III/VI	Android Development Workshop,Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
19	2022-23	Nikhil Lanjewar	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
20	2022-23	Vishal Tikle	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
21	2022-23	YashashriDalvi	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
22	2022-23	AtharvPise	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
23	2022-23	PoonamTiwari	III/VI	Techfest	IIT, Bombay	December 16, 2022 to

						December 18, 2022
24	2022-23	HimanshuChimote	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
25	2022-23	SahilMohabbe	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
26	2022-23	SanketShende	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
27	2022-23	KartikMankar	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
28	2022-23	VaishnaviWankhede	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
29	2022-23	KartikKothe	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
30	2022-23	Harsh Nikam	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
31	2022-23	NidhiWaghmare	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
32	2022-23	ShruitRamteke	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
33	2022-23	MohitGurharikar	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
34	2022-23	PranotiGedam	III/VI	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
35	2022-23	DivyaniWadhwani	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
36	2022-23	SanchiDongre	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
37	2022-23	KrutikaPunpreddiwar	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
38	2022-23	SwarnitMokadam	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022

| 39	2022-23	KhishiBhange	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
40	2022-23	RiyaWaghmare	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
41	2022-23	Dhruv More	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
42	2022-23	GouriPatankar	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
43	2022-23	Vanshika Dhole	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
44	2022-23	OmkarBhavik	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
45	2022-23	PravajjyaMeshram	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
46	2022-23	YashPardhi	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
47	2022-23	PrafulSawarkar	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
48	2022-23	Anom Mate	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
49	2022-23	HarshalWarukar	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
50	2022-23	IngitKamdi	II/IV	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
51	2022-23	NidhiWankhade	IV/VIII	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022
52	2022-23	PrajaktaAkojwar	IV/VIII	Techfest	IIT, Bombay	December 16, 2022 to December 18, 2022

EVENTS OUTSIDE THE STATE

Sr. No.	Academic Session	Name of Students	Year & Semester	Name of Event	Organizing Institute	Date
01	2022-23	Samiksha Ashok Raut	IV/VIII	International Conference on Sustainable Rural Development (ICSRD)	ShriBalaji Institute of Technology & Management, Betul (MP)	December 16, 2023 to December 17, 2023
02	2022-23	SanidhyaUkey	IV/VIII	International Conference on Sustainable Rural Development (ICSRD)	ShriBalaji Institute of Technology & Management, Betul (MP)	December 16, 2023 to December 17, 2023
03	2022-23	ShubhamPardhi	IV/VIII	International Conference on Sustainable Rural Development (ICSRD)	ShriBalaji Institute of Technology & Management, Betul (MP)	December 16, 2023 to December 17, 2023
04	2022-23	TejasKishor Gedam	IV/VIII	International Conference on Sustainable Rural Development (ICSRD)	ShriBalaji Institute of Technology & Management, Betul (MP)	December 16, 2023 to December 17, 2023
05	2022-23	YashShingarwade	IV/VIII	International Conference on Sustainable Rural Development (ICSRD)	ShriBalaji Institute of Technology & Management, Betul (MP)	December 16, 2023 to December 17, 2023

INDUSTRIAL TRAINING / INTERNSHIPS:

| Sr. No.	Student ID No.	Name of Student	Company Details	Duration	
				From	To
1	ET20003	AkashUdayrajTiwari	CodemateITservices	10/07/2023	14/8/2023
2	ET20007	SumitD.Jiwtode	CodemateITservices	10/07/2023	14/8/2023
3	ET20009	MayurHiteshSahare	CodemateITservices	10/07/2023	14/8/2023
4	ET20026	JanhviRakeshPardeshi	CodemateITservices	10/07/2023	14/8/2023
5	ET20042	Anuj Premdas Gajbhiye	CodemateITservices	10/07/2023	14/8/2023
6	ET20065	AadeshMotghare	CodemateITservices	10/07/2023	14/8/2023
7	ET20101	TanviYashwantRamteke	CodemateITservices	10/07/2023	14/8/2023
8	ET20108	HarshVinodBhute	CodemateITservices	10/07/2023	14/8/2023
9	EE20TET006	HimanshuBhaskarChimote	CodemateITservices	10/07/2023	14/8/2023
10	ET20037	SahilRafikMohabbe	CodemateITservices	10/07/2023	14/8/2023
11	ET20072	KiranSanjayRasam	CodemateITservices	10/07/2023	14/8/2023
12	ET20075	MohitRajuGurharikar	CodemateITservices	10/07/2023	14/8/2023
13	ET20091	SanketKishorShende	CodemateITservices	10/07/2023	14/8/2023
14	ET20092	VishalVinayakTikle	CodemateITservices	10/07/2023	14/8/2023
15	ET20107	YashashriOnkarDalvi	CodemateITservices	10/07/2023	14/8/2023
16	ME20TET009	KartikGopeshMankar	CodemateITservices	10/07/2023	14/8/2023
17	EE20TET005	SwatiRavishankarDhabale	ClsutorComputing	10/07/2023	14/8/2023
18	ET20080	HimanshuAnandPotpose	ClustorComputing	10/07/2023	14/8/2023
19	ET21D002	KashyakKhobragade	ClustorComputing	10/07/2023	14/8/2023
20	ET21D003	RakshitaSodekar	ClustorComputing	10/07/2023	14/8/2023
21	ET21D008	RupeshShriramKewate	ClustorComputing	10/07/2023	14/8/2023
22	ET21D009	SahilKamalChaudhary	ClustorComputing	10/07/2023	14/8/2023
23	ET21D012	RitikGulhane	ClustorComputing	10/07/2023	14/8/2023
24	ET21D014	SushilHumne	ClustorComputing	10/07/2023	14/8/2023
25	ET21D017	DhirajNarendraBhagat	ClustorComputing	10/07/2023	14/8/2023
26	ET21D018	YashRajendraChonde	ClustorComputing	10/07/2023	14/8/2023
27	ET20005	SrushtiSandeepSawalkar	ClustorComputing	10/07/2023	14/8/2023
28	ET20008	PrathmeshUmredkar	ClustorComputing	10/07/2023	14/8/2023
29	ET20012	RupalAnilGondane	ClustorComputing	10/07/2023	14/8/2023
30	ET20019	PrajaktaNavneetShegaonkar	ClustorComputing	10/07/2023	14/8/2023
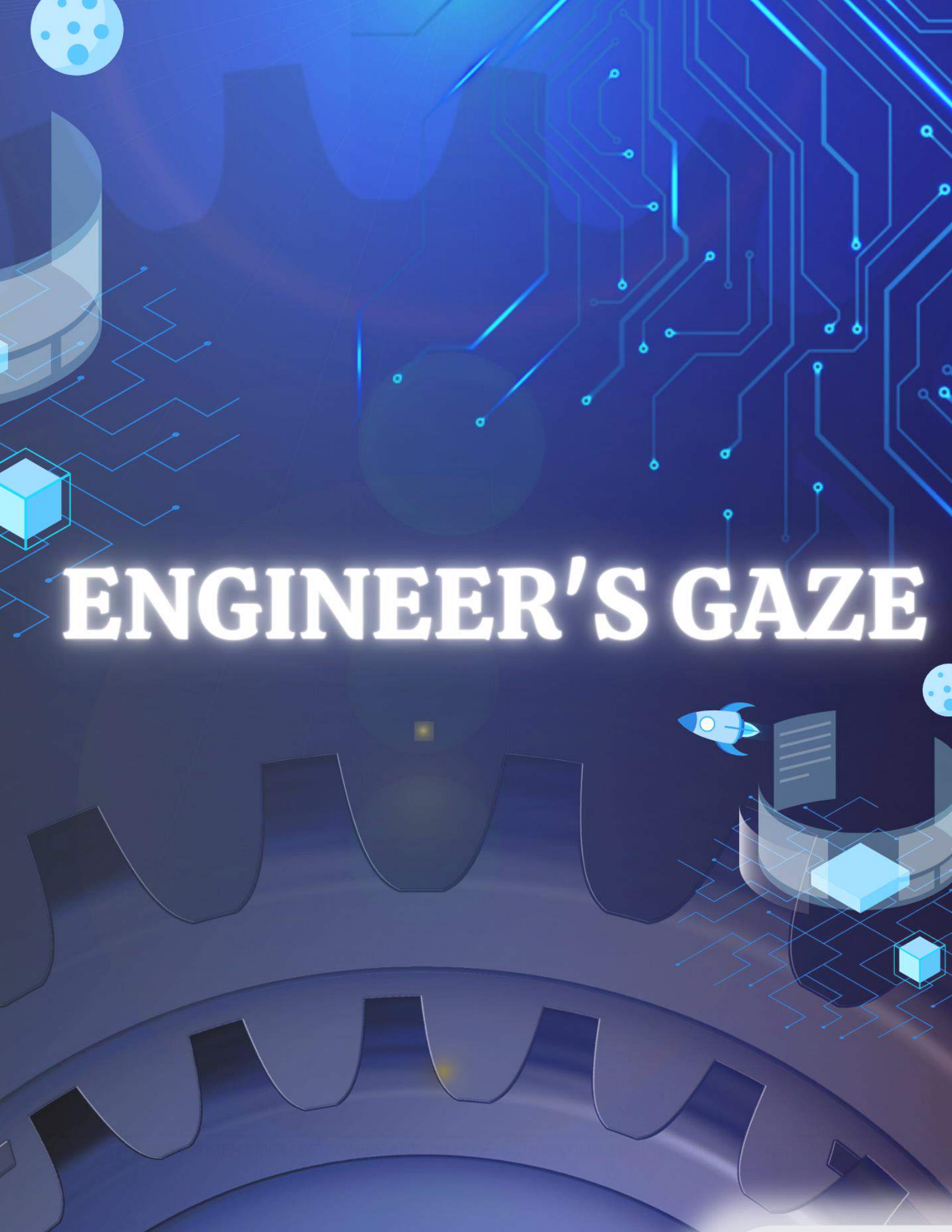
ENGINEER'S GAZE

15 Electronics Manufacturing Magazines

1. SMT Today: Global industry insights, interviews, and technology trends.

2. Electronics Weekly: Online hub with news, market research, and videos.

3. EMS Now: Daily updates on manufacturing services, market trends, and solutions.

4. Electronic Product Magazine: Latest products, components, and Editor's Choice awards.

5. ElectroPages: Global platform covering semiconductors, connectors, and more.

6. R&D World: Technology news and insights, with an annual awards program.

7. Electronics World: User-friendly design, categorized articles, and Q&A with industry leaders.

8. Digital Engineering Magazine: Focus on engineering practices, digital integration, and webinars.

9. EDN: "Voice of the Engineer" with technical content on various industries.

10. Electronic Design: Resources for design engineers in automotive and industrial automation.

11. EE Times: Global resource with industry news, perspectives, and a podcast.

12. Fierce Electronics: Industry news, product developments, and event links.

13. EBN Online: Online resource for secure supply chain practices and industry insights.

14. Circuits Assembly: Go-to resource for PCB and SMT industry updates, events, and podcasts.

15. IEEE Spectrum: Online magazine with engineering topics, green tech, and geek life section.

-Ms. Chaitali A Darode
Assistant Professor
Electronics and Telecommunication Department
SBJITMR,
Nagpur

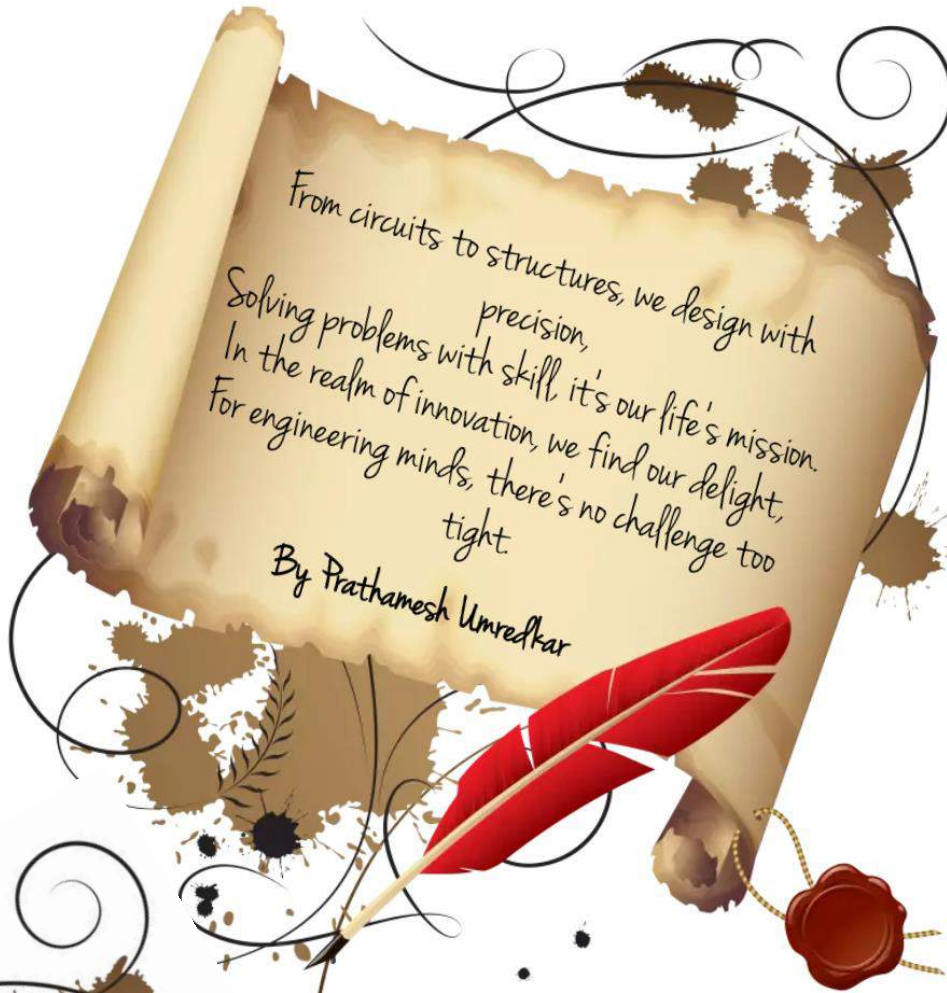# ELECTROCHROMIC AND ELECTROPHORETIC TECHNOLOGIES SHINE IN LOW-POWER
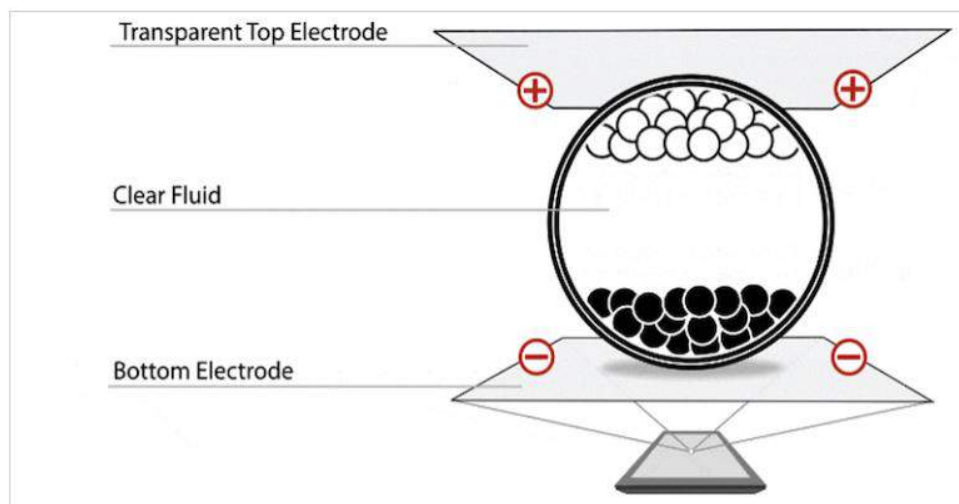
Smart products are proliferating with the continuing advance of low-power electronics technology. This has included putting electronics into applications like wearables and labels that must be thin, lightweight, flexible, and robust. While liquid crystal display (LCD) products have been around for decades providing low power at low cost, they have a limited viewing angle and are too thick to bend in wearables or to be used in labels. Two display technologies (electrochromic and electrophoretic) are replacing LCDs in thse types of applications.

Electrochromic and Electrophoretic — what's the Difference?

While both electrophoretic and electrochromic displays are examples of reflective displays, the underlying technologies are quite different. Electrochromic displays employ ultra-thin polymers that change color in response to an applied electric field. The electric field causes the electrochromic material to undergo chemical oxidation and reduction. This change requires very little energy and is relatively stable, so refresh requirements are low.

The displays are manufactured by printing the material stack of electrodes, polymers, and electrolytes in thin layer. These displays can be only a few hundred microns thick, which allows them to be highly flexible. Electrochromic displays can be switched at voltages as low as 3 V, which means they can often be driven directly by standard CMOS products without requiring specialized display drivers that geneIn electrophoretic displays, the application of an electric field causes tiny microcapsules filled with colored pigments to move. The negatively charged white pigment ink particles are drawn to the positively charged top electrode. The positively charged black pigment ink particles are drawn to the negatively charged bottom electrode. Viewed from the top, this pixel would appear white.

Vrushabh Dhok
IV Year

From circuits to structures, we design with
precision,
Solving problems with skill, it's our life's mission.
In the realm of innovation, we find our delight,
For engineering minds, there's no challenge too
tight

By Prathamesh Umredkar

In a garden blooming with colors so
bright,
Amidst the petals, a mesmerizing sight,
Butterflies dance in the warm
daylight,

A world of enchantment, a pure delight.

By Aadesh Motghare

"CHINSIGHT"

Poetry

In labs and lectures, we toil each day,
Engineering students, in our own unique way.

We measure, we calculate, and we create,
In the world of science and tech, we navigate.

From circuits to structures, we design with precision,
Solving problems with skill, it's our life's mission.

By Anuj Gajbhiye

Poetry

In books and lessons, we find our way,
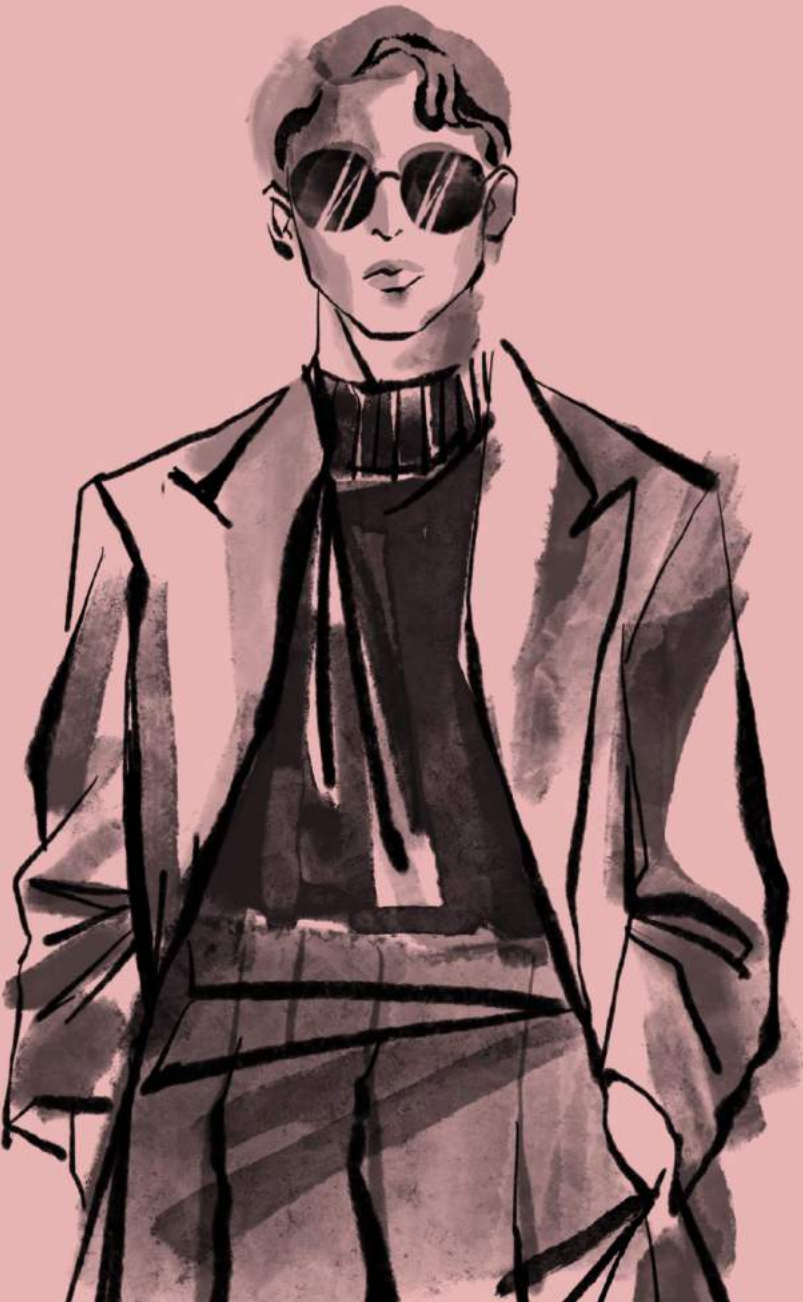Tomorrow's leaders, we'll be one day.

With passion and purpose, our hearts ignite,
Students of today, we'll shine so bright.

By Mayur Sahare

T"

Department of Electronics and Telecommunication

Drawing , Sketch , Painting and More

Atharv Ganer

Akash Tiwari

Riya Waghmare

Mayuri Lakhmapure

Bhumika Gurav

Gayatri Nagpure

Chaitali Uke

MOODBOARD

Punit Lanjewar

Akash Tiwari

Sunday
12:01 Am

Janhavi Pardeshi

Akansha Patel

the best time is now

Rijul Chande