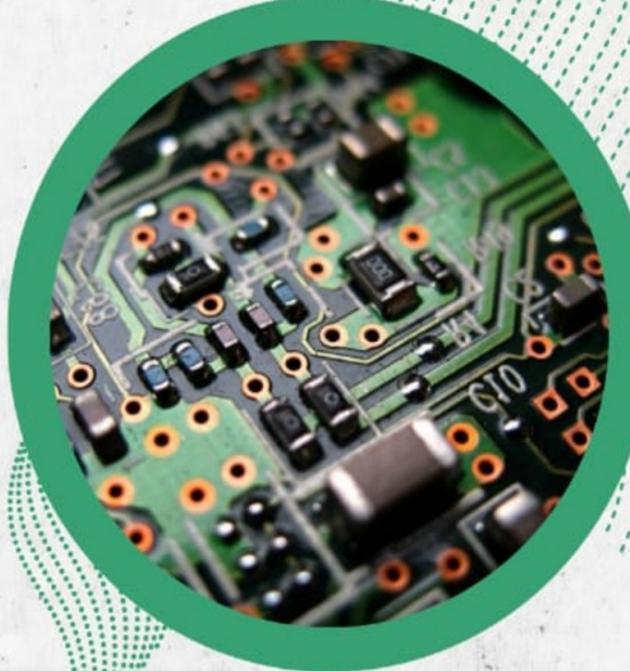
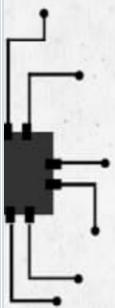




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College of Engineering**  
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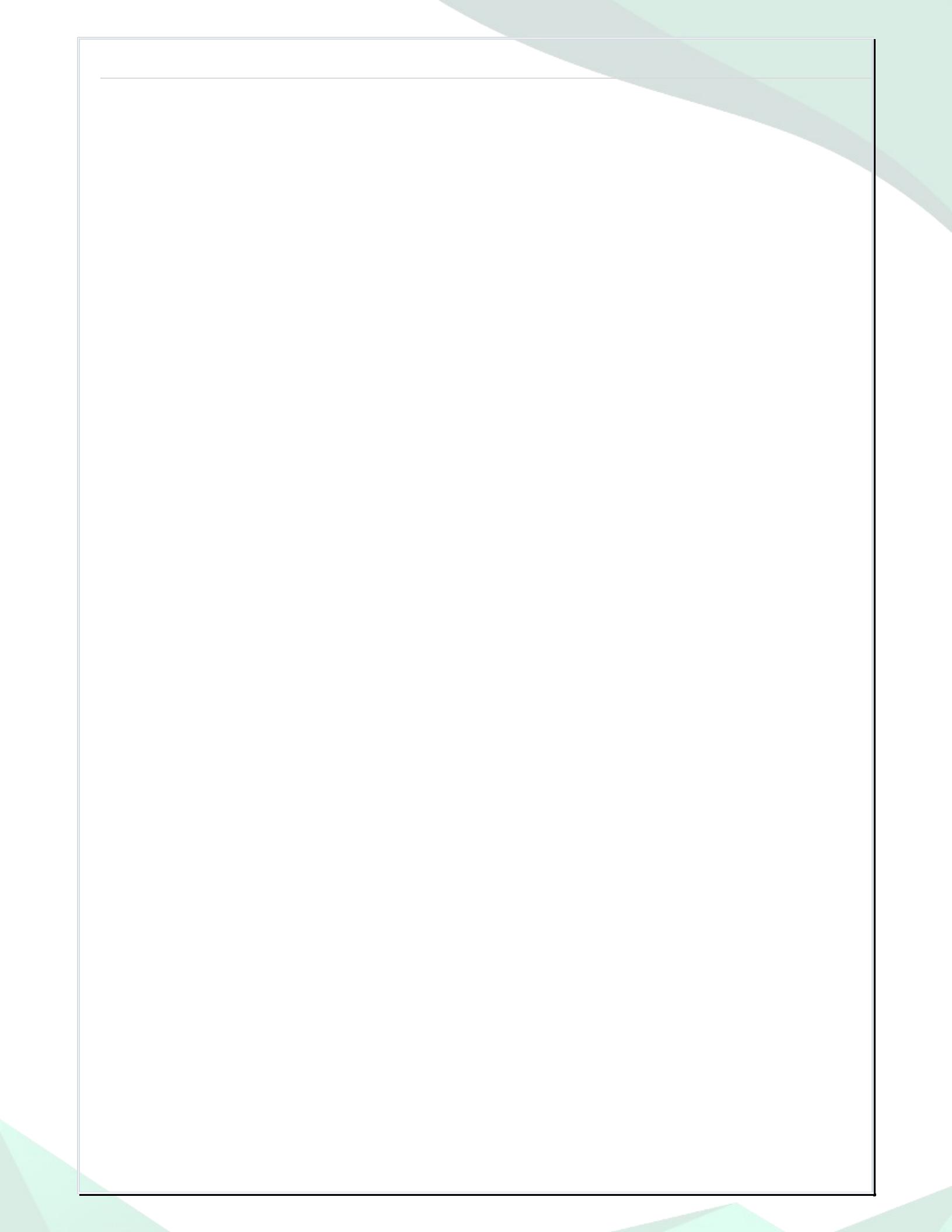
# SRUJJAN

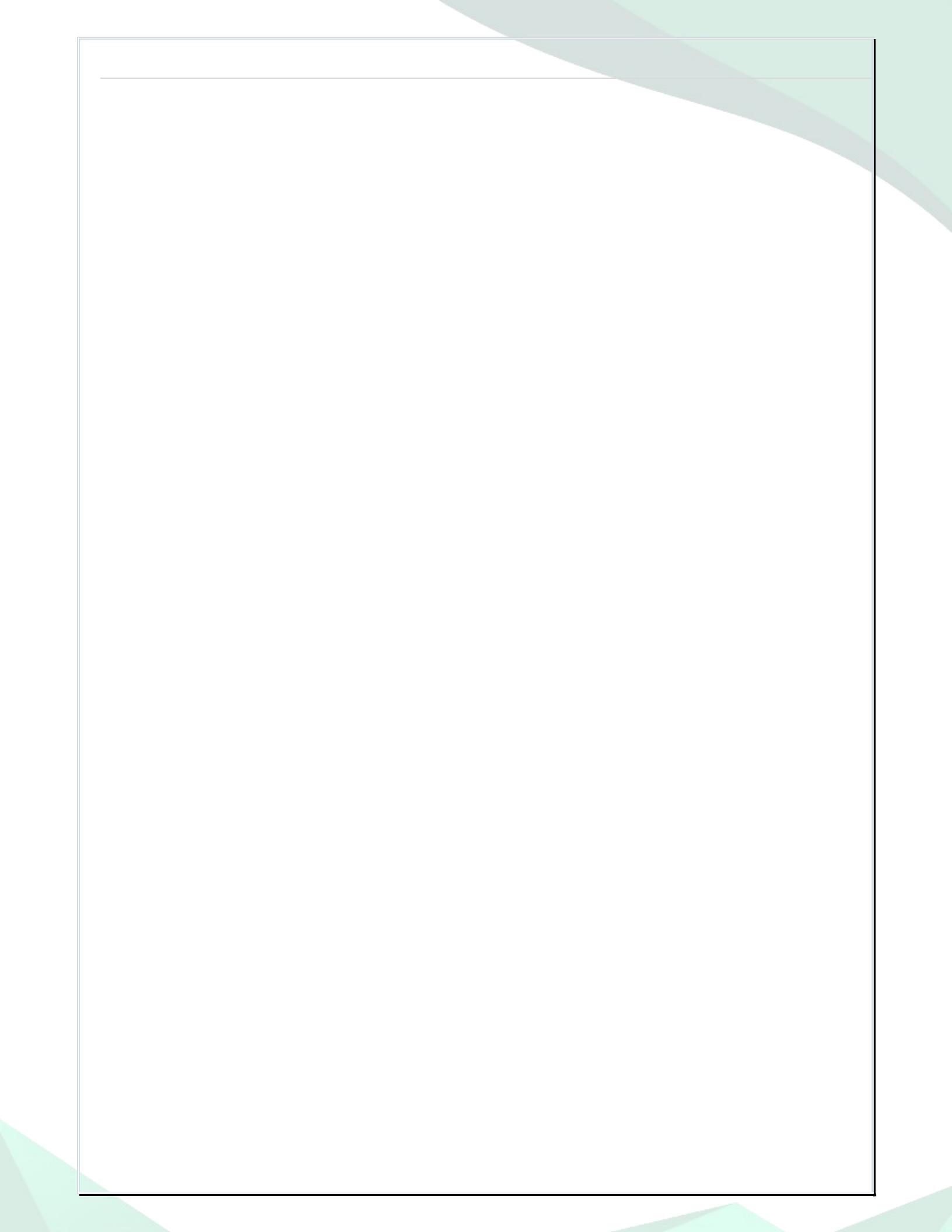


**DEPARTMENT OF ELECTRONICS  
AND TELECOMMUNICATION  
ENGINEERING**

**2022-23**







## **DEPARTMENT VISION**

To impart quality education and excel in Electronics and Telecommunication Engineering research to serve the global society.

## **DEPARTMENT MISSION**

- To develop excellent learning centre through continuous interaction with Industries, R&D centres and Academia.
- To produce competent, entrepreneurial and committed Electronics and Telecommunication Engineers.
- To develop state-of-the-art infrastructure, centres of excellence and to pursue research of global and local relevance.
- To inculcate ethical, spiritual and human values to serve the global society.

## **PROGRAM EDUCATIONAL OBJECTIVES (PEOS)**

1. To produce Electronics & Telecommunication engineers with a strong foundation of Mathematics, Science and Technology to full fill needs of society.
2. To enable students to innovate design, simulate, develop, analyse and test hardware and software components for offering solutions to real life situations using state-of-the-art infrastructure and R&D facilities.
3. To nurture students with professional attitude, leadership, entrepreneurship, effective communication, teamwork & multi-disciplinary approach to serve in national and multinational organizations.
4. To inculcate ethical, moral and environment friendly values in students.

## FROM THE HOD'S DESK

***"Excellence is never an accident. It is the result of high intention, sincere effort, and intelligent execution."***

It gives me immense pleasure to present the **2022–2023** edition of **SRUJJAN**, the annual magazine of the Electronics & Telecommunication Engineering Department. This publication reflects the **intellectual vigor, creativity, and achievements** of our students and faculty members.

The academic year 2022–23 was filled with significant accomplishments. Our students actively participated in **technical competitions, workshops, research activities, and industry internships**. Several innovative projects and ideas emerged from this vibrant academic environment, making us proud of the budding engineers we are nurturing.

Our faculty members have continued to show dedication through **quality teaching, research publications, and collaboration with industry and academia**, keeping our department aligned with the changing technological landscape.

SRUJJAN not only serves as a platform to showcase our department's journey but also encourages students to express their creative thoughts, technical insights, and literary talents.

I sincerely thank the **editorial team, contributors, and coordinators** for their untiring efforts in bringing out this magazine successfully. I also extend my gratitude to the management and all stakeholders for their constant support.

Let us continue striving for excellence in all spheres and inspire the upcoming batches to push the boundaries of learning and innovation.

**Best wishes to all!**

**Dr. M. N. Tibdewal**  
**Head of the Department,**  
**Electronics & Telecommunication Engineering**

## EDITORIAL MESSAGE

It is with immense pride and joy that we present to you the **2022–2023 edition of SRUJJAN**, the annual magazine of the **Electronics & Telecommunication Engineering Department**. This edition is a celebration of the creativity, innovation, and dedication that our students and faculty have demonstrated throughout the academic year.

SRUJJAN is more than just a magazine—it is a platform that captures the **spirit of our department**, showcasing academic achievements, technical articles, creative writing, research innovations, and vibrant student activities.

The year 2022–23 witnessed an enthusiastic participation of students in various **technical workshops, industrial training programs, and competitions**. Faculty members continued to contribute through impactful research, academic excellence, and mentorship.

This magazine is a reflection of countless hours spent planning, writing, designing, and editing. We extend our heartfelt thanks to **Dr. M. N. Tibdewal (HOD)** and **Prof. Sanjay Satal (Faculty Coordinator)** for their constant guidance and encouragement.

We also thank every student and faculty member who contributed to this edition—whether through a poem, a project, a story, or an idea. Your creativity is what breathes life into SRUJJAN. Happy Reading! 😊

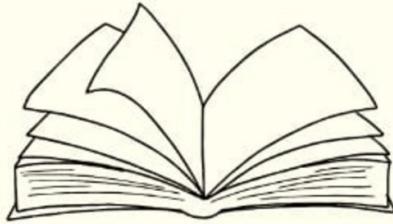
— *Editorial Team,  
SRUJJAN*

***TEAM SRUJJAN***  
***(2022-23)***

<b><i>POST</i></b>	<b><i>NAME</i></b>
Chief Editor	Manan Goel (3U)
Asso. Chief Editor	Shravani Dhamode (3U)
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Editor in Hindi	Prathmesh Gattani (3U) Anuraj Biyani (2U)
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Layout Artist	Shruti Dudhe (3U) Pranjal Chavan (2U)
Editor in Technical	Prem Baraskar (1U)

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***Achievement  
of  
Department***



## OVERVIEW

The **Electronics & Telecommunication Engineering Department** at **Shri Sant Gajanan Maharaj College of Engineering, Shegaon**, is a key academic pillar offering **B.E., M.E., and Ph.D. programs**. The department is known for its academic excellence, qualified faculty, and state-of-the-art laboratories.

### 📌 Department Snapshot:

- **22 Faculty Members** (8 with Ph.D., 8 pursuing Ph.D.)
- **6 Laboratory Assistants & Office Staff**
- **8 Support Staff**
- **442 UG & PG Students and 9 Ph.D. Scholars**
- **University-Recognized Research Laboratories**
- **NBA Accreditation** received for the period **2019–2025**

## ACADEMIC & RESEARCH ACHIEVEMENTS

### Faculty Excellence:

- ✓ Faculty members actively contributed through **quality teaching, research, and industry engagement.**
- ✓ Served as **Deans, Project Guides**, and resource persons at reputed institutions.
- ✓ Several proposals submitted to **AICTE & MSME** for funding support.

### Student Success:

- ✓ Students participated in **GATE, CAT**, and other national-level competitive exams.
- ✓ **18 students** completed **internships** in recognized industries.
- ✓ Students won **2<sup>nd</sup> Prize in Avishkar 2023** and were selected for **state-level project presentations.**
- ✓ Final-year result: **88.24% pass rate**, with **7 students securing distinction.**

### Research Contributions

- ✓ Multiple **research papers published** in reputed **national and international journals/conferences.**
- ✓ Senior faculty delivered **expert lectures** and acted as **reviewers/judges** at technical events.
- ✓ Continuous growth in **interdisciplinary student projects** under experienced faculty mentorship.

## WORKSHOPS, TRAININGS & INDUSTRIAL COLLABORATIONS

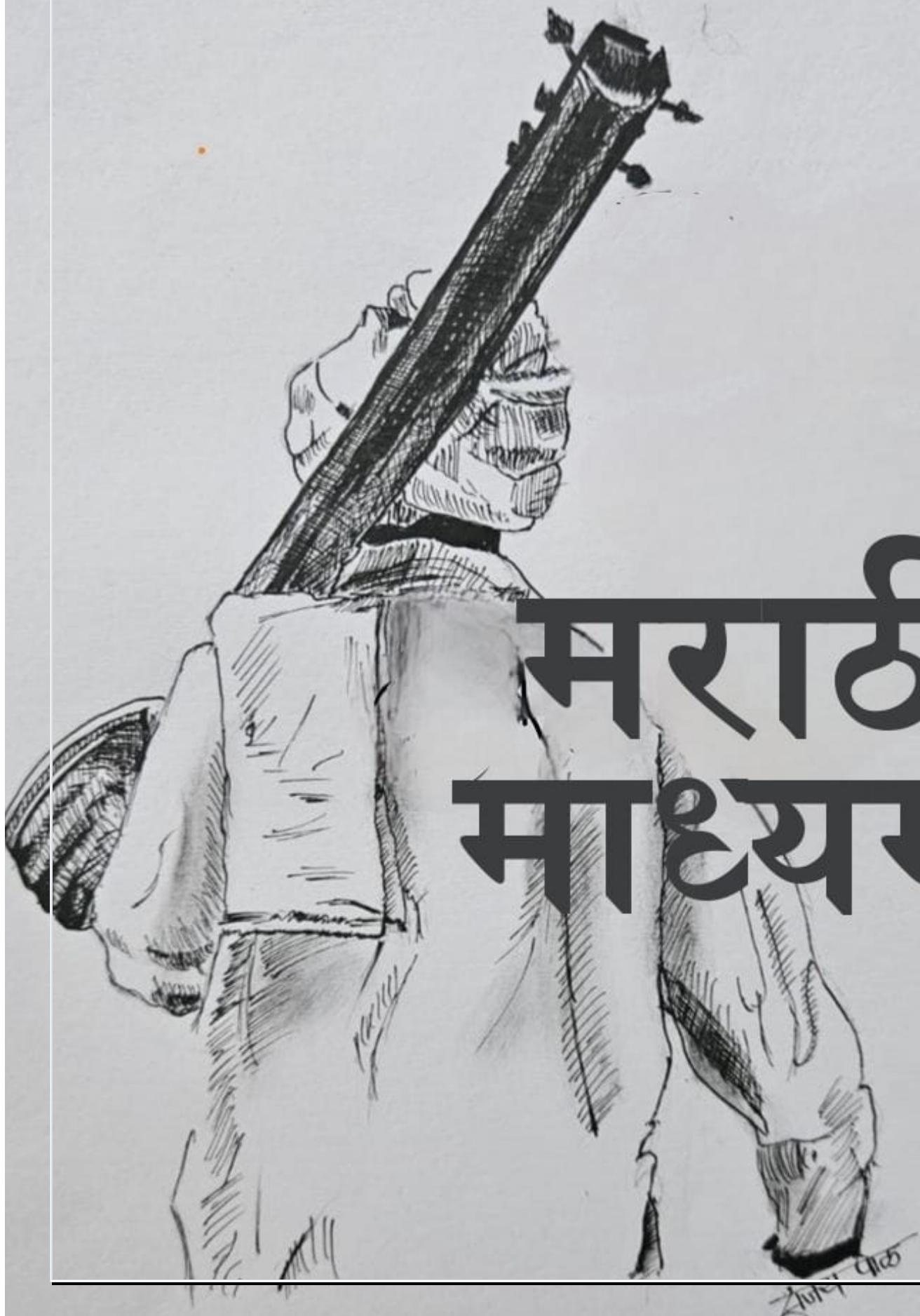
The department conducted a variety of **skill-building and academic programs**:

- ✓ Organized **10+ technical workshops/webinars** for students, faculty, and staff (both online & offline).
- ✓ Topics included **Basic Electronics, PCB Design, Communication Tools, and Advanced Circuit Simulation**.
- ✓ Strong engagement with **industry professionals** and domain experts.
- ✓ Students participated in **mini-project competitions, soft-skill sessions, and tool training modules**.

## PLACEMENTS & INDUSTRY LINKAGES

- ✓ **98 final-year students** successfully placed in **leading national and multinational companies**.
- ✓ Top recruiters included **TCS, Wipro, Capgemini, Infosys, HDFC Life, BYJU'S**, and more.
- ✓ Students engaged in **industry-relevant and interdisciplinary projects**.
- ✓ Strong alumni network and consistent collaboration with industries for internships and placements.

# मराठी माह्यम



# कविता

## गावची आठवण

माझी पायवाट, माझ्या गावची,  
हिरव्यागार शेतामधून जाणारी.  
ओढ्याच्या काठी खेळणे, बालपणीचे,  
आठवण मनात कायम घर करणारी.

मंद वारा, पानांची सळसळ,  
पक्षांची किलबिलाट, मंजुळ गाणी.  
मातीचा सुगंध, फुलांचा रंग,  
नसते शहरात या सुखाची सरणी.

आजोबांची गोष्ट, आजीचा लाड,  
सणवारांची ती धामधूम न्यारी.  
शेतात रमणे, मित्रांसोबत फिरणे,  
दिवस कसे गेले, काही नाही उरी.

शहरात आलो, स्वप्ने घेऊन मोठी,  
पण मन धावे त्या गावच्या दिशेने.  
कधी भेट होईल, त्या मातीच्या स्पर्शाची,  
आस लागली आहे त्या शांत जीवने.

## पर्यावरणाची हाक

वृक्ष तोडू नका, जंगल वाचवा,  
घरतीला हिरवी शाल पांघरा.  
नद्यांना दूषित करू नका, मित्रांनो,  
पाण्याचे महत्त्व जरा ओळखा.

पक्षांची घरटी उधस्त नको,  
प्राण्यांना मारण्याची कूरता सोडा.  
प्लास्टिकचा कचरा फेकू नका इथे तिथे,  
स्वच्छ ठेवा परिसर, निसर्गाला जोडा.

सूर्यप्रकाश, हवा आणि पाणी,  
या जीवनाच्या गरजा खास.  
यांची काळजी घ्या, जतन करा सारे,  
पर्यावरणाचा ठेवा अनमोल आहे खास.

जर निसर्ग रुसला, तर येईल संकट,  
पूर येतील, दुष्काळ पडेल मोठा.  
वेळेत जागे व्हा, करा प्रयत्न सारे,  
पर्यावरणाची हाक ऐका आता.

## कष्टाचे फळ

घाम गाळूनी मातीमध्ये, बीज रोवतो शेतकरी,  
उन्हातान्हात राबतो, तेव्हा येते हिरवळ खरी.  
कष्टाचे महत्त्व मोठे, नाही नशिबाचा खेळ,  
परिश्रमाच्या बळावर, फुलतो जीवनाचा वेल.

हातांना फोड आले, तरी थाबत नाही तो कधी,  
धरती मातेच्या सेवेमध्ये, रमतो अहर्निशी.  
अन्नदाता तो जगाचा, त्याचे मोल अनमोल,  
कष्टाच्या घामातून पिकतो, जीवनाचा तोल.

विद्यार्थी पुस्तकात रमतो, रात्रंदिवस करतो अभ्यास,  
परीक्षेच्या कठीण वाटेवर, ठेवतो धैर्याचा श्वास.  
कष्टाचे फळ मिळते त्याला, यश येते सोनियाचे,  
ज्ञानज्योत तेजाळते, अंधार होतो दूर साज्याचे.

कोणतेही काम असो, कष्ट केल्याविना नाही यश,  
मेहनतीच्या बळावर मिळते, जीवनाला नवी दिशा.  
म्हणून सोडू नका हिम्मत, करा प्रयत्न अविरत,  
कष्टाचे फळ मधुर असते, अनुभवा त्याची गोडी सत्य.

# लेख

## बदलत्या काळातली तरुणाई आणि तिचं योगदान

### प्रस्तावना:

आजचा तरुण वर्ग केवळ शिक्षणापुरता मर्यादित नाही तर तो समाजाच्या अनेक क्षेत्रांमध्ये सक्रीय सहभाग घेत आहे. सोशल मिडिया, स्टार्टअप्स, कृषी तंत्रज्ञान, आणि स्वयंसेवा यामध्ये तरुणाईचे योगदान उल्लेखनीय आहे. बदलत्या सामाजिक, आर्थिक आणि तांत्रिक स्थितीत तरुणांनी आपली भूमिका ओळखली असून ते आता समाजाच्या विकासात महत्वाची जबाबदारी निभावत आहेत.

### नव्या क्षेत्रांची ओळख:

पूर्वी पारंपरिक करिअरच्या संकल्पना होत्या—डॉक्टर, इंजिनिअर, वकील. आता तरुण पिढी फ्रीलान्सिंग, डिजिटल मार्केटिंग, यूट्यूबिंग, स्टार्टअप्स यामध्ये उत्तरत आहे. ग्रामीण भागातीलही तरुण आता ऑनलाईन प्लॅटफॉर्मचा वापर करून उद्योजक बनत आहेत.

### सामाजिक योगदान:

तरुणांमध्ये सामाजिक जाणिवा अधिक बळकट झाल्या आहेत. अनेक तरुण स्वयंसेवी संस्थांमध्ये सहभागी होऊन स्वच्छता मोहिम, पर्यावरण संरक्षण, महिला सक्षमीकरण यासाठी काम करत आहेत. त्यांनी रक्तदान, गरजूना मदत अशा अनेक उपक्रमांमध्ये पुढाकार घेतला आहे.

### आव्हाने आणि जबाबदाऱ्या:

आजच्या तरुणपिढीसमोर बरेच आव्हाने आहेत – बेरोजगारी, मानसिक आरोग्य, स्पर्धेचा ताण. तरीसुद्धा त्यांची इच्छाशक्ती, कल्पकता आणि मेहनत यांच्या जोरावर ते मार्ग काढत आहेत. सरकारने, शिक्षणसंस्था आणि समाजाने त्यांना योग्य संधी, मार्गदर्शन आणि पाठिंबा दिल्यास ते भविष्यातील सक्षम नागरिक बनू शकतात

## तंत्रज्ञानाचा प्रभाव आणि मराठी साहित्य

आजचे युग हे तंत्रज्ञानाचे युग आहे. इंटरनेट आणि आधुनिक उपकरणांनी आपल्या जीवनाच्या प्रत्येक क्षेत्रावर प्रभाव टाकला आहे, आणि मराठी साहित्याही याला अपवाद नाही. एका बाजूला तंत्रज्ञानाने मराठी साहित्याला जागतिक स्तरावर पोहोचण्यास मदत केली आहे, तर दुसरीकडे काही पारंपरिक पद्धती आणि वाचकांच्या सवयींमध्ये बदल घडवून आणले आहेत.

इंटरनेटमुळे आज मराठी पुस्तके आणि लेख जगभरातील वाचकांना सहज उपलब्ध झाले आहेत. ई-पुस्तके आणि ऑनलाइन साहित्य पोर्टल्समुळे वाचकांना कधीही आणि कोठेही मराठी साहित्य वाचण्याची सोय मिळाली आहे. यामुळे मराठी लेखकांना नवीन वाचकवर्ग मिळाला आहे आणि साहित्याची पोहोच वाढली आहे. सोशल मीडिया आणि ब्लॉगच्या माध्यमातून लेखक थेट वाचकांशी संवाद साधू शकतात, ज्यामुळे साहित्य आणि वाचकांमध्ये एक नवीन नाते निर्माण झाले आहे. परंतु, तंत्रज्ञानाच्या या वाढत्या प्रभावामुळे काही आव्हाने देखील उभी राहिली आहेत. छापील पुस्तकांचे वाचन कमी होण्याची शक्यता आहे, कारण अनेक वाचक आता डिजिटल माध्यमांकडे वळले आहेत. यामुळे पुस्तकांची दुकाने आणि प्रकाशक यांच्यासमोर नवीन व्यावसायिक आव्हाने उभी राहिली आहेत. तसेच, ऑनलाइन साहित्याची गुणवत्ता आणि विश्वसनीयता तपासणे देखील महत्त्वाचे आहे.

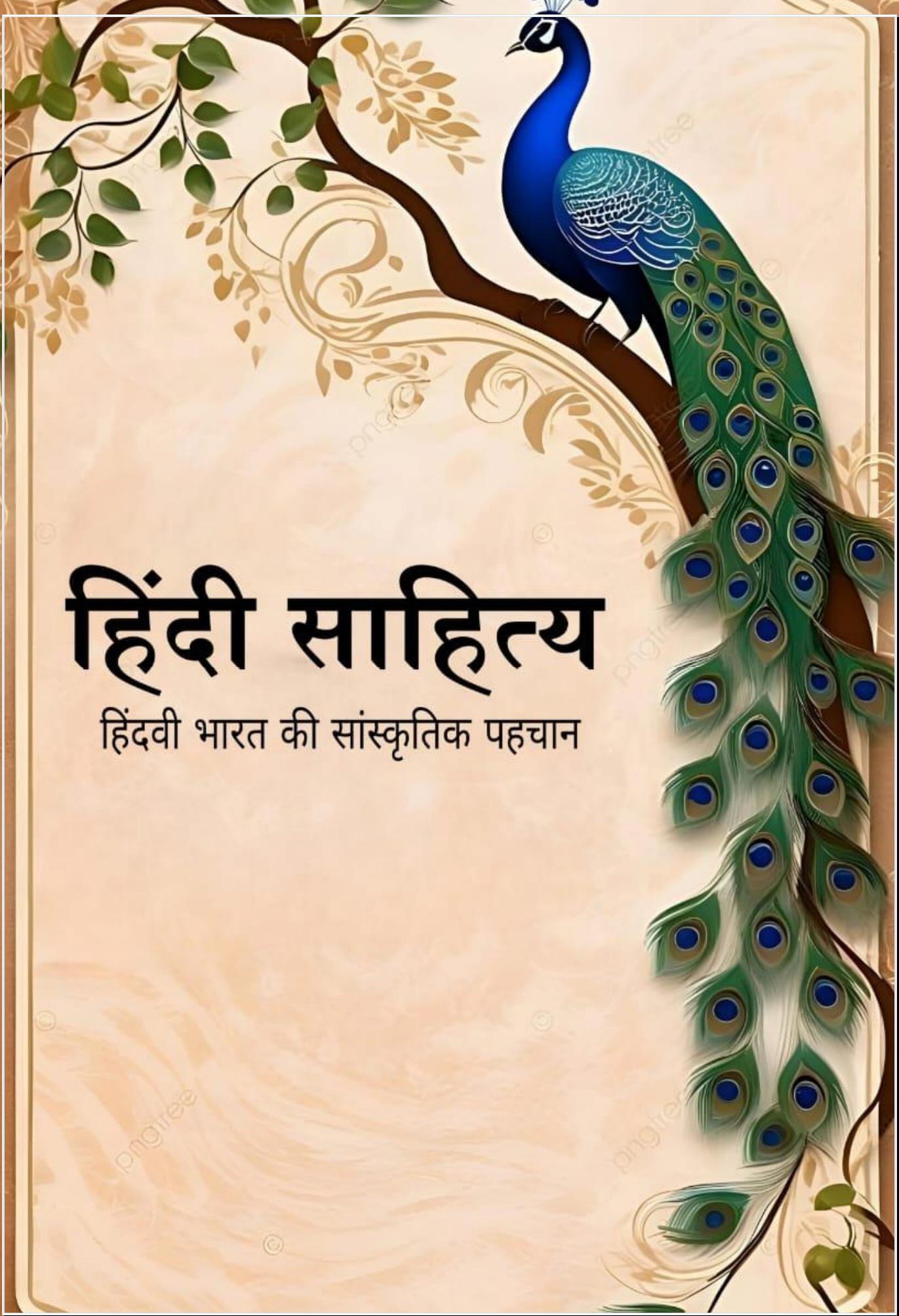
तंत्रज्ञानाने मराठी साहित्याच्या निर्मिती प्रक्रियेतही बदल घडवले आहेत. अनेक लेखक आता संगणकावर आणि इतर डिजिटल साधनांच्या मदतीने लेखन करतात, ज्यामुळे त्यांची कामे जलद आणि अधिक कार्यक्षमतेने पूर्ण होतात. तसेच, डिजिटल फॉन्ट आणि लेआउटमुळे पुस्तकांचे स्वरूप अधिक आकर्षक आणि वाचण्यास सोपे झाले आहे.

मराठी साहित्य आणि वाचकांनी तंत्रज्ञानाचा सकारात्मक दृष्टिकोन ठेवून स्वीकार करणे आवश्यक आहे. छापील पुस्तकांचे महत्त्व कायम ठेवून, डिजिटल माध्यमांचा उपयोग मराठी साहित्याला नवीन उंचीवर नेण्यासाठी करता येऊ शकतो. लेखकांनी आणि प्रकाशकांनी वाचकांच्या बदलत्या आवडीनिवडीनुसार साहित्यात आणि प्रस्तुतीकरणात बदल करणे गरजेचे आहे.

शेवटी, तंत्रज्ञान हे मराठी साहित्यासाठी एक शक्तिशाली साधन आहे. याचा योग्य वापर करून आपण मराठी भाषेला आणि साहित्याला अधिक समृद्ध आणि लोकप्रिय बनवू शकतो. गरज आहे ती फक्त योग्य दिशेने प्रयत्न करण्याची आणि बदलत्या युगासोबत जुळवून घेण्याची.

# हिंदी साहित्य

हिंदवी भारत की सांस्कृतिक पहचान



# कविताएँ

## वन की वाणी

हरियाली की चादर ओढ़े, पर्वत कुछ कहता है,  
नदियाँ कलकल करती हैं, जीवन सा बहता है।  
पेड़ों की छाँव में बैठो, तो मन भी मुस्काए,  
जैसे हर पत्ता कुछ बोले, हवा गीत सुनाए।  
भोर की पहली किरणों में, उम्मीदें जगती हैं,  
चिड़ियों की चहचहाहट में, मधुर रचनाएँ बसती हैं।  
धरती माँ की गोदी में, सब कुछ शीतल लगता,  
जो सुने धड़कनें इसका, वही तो सच में जिया।  
मनुष्य भूल बैठा है, इसका अपनापन,  
काटता है जड़ें जिसकी, वही तो देता जीवन।  
प्रकृति नहीं शोर करती, बस संकेत देती है,  
जब सहन सीमा टूटे, तब सब कुछ ले लेती है।

## जीवन एक यात्रा

जीवन कोई सीधी रेखा नहीं, ये तो एक यात्रा है,  
कभी धूप, कभी छाँव भरी, हर मोड़ पर कुछ बात नई है।  
कुछ पल रुकते हैं, कुछ दौड़ते हैं,  
पर हर कदम पर अनुभव जोड़ते हैं।  
कभी लगता सब कुछ हाथ में है,  
फिर छूट जाए जैसे रेत की तरह।  
यहाँ हार भी शिक्षक है, और जीत भी,  
दोनों साथ चलें जैसे रात्रि और प्रभा।  
मन जब विचलित हो जाए, तो याद रखो यह बात,  
कभी-कभी चुप रहकर भी मिल जाता है साथ।  
सफलता की परिभाषा भी बदलती रहती है,  
जो सीखे हर क्षण से, वही जीवन को जीता है।

# लेख

## टेक्नोलॉजी और छात्र जीवन

आज की दुनिया तकनीक (Technology) की दुनिया है। जिस तरह विज्ञान ने हमारे जीवन को सरल बनाया है, उसी तरह टेक्नोलॉजी ने शिक्षा और छात्र जीवन को पूरी तरह बदल दिया है। कॉलेज के छात्र, जो भविष्य की नींव रखते हैं, उनके लिए तकनीक किसी वरदान से कम नहीं है।

### शिक्षा में डिजिटल क्रांति:

पहले जहाँ शिक्षा केवल कक्षाओं और पुस्तकों तक सीमित थी, वहीं अब इंटरनेट, स्मार्टफोन और लैपटॉप ने ज्ञान को हर किसी की पहुँच में ला दिया है। ऑनलाइन लेक्चर, ई-लाइब्रेरी, वर्चुअल लैब और सिमुलेशन सॉफ्टवेयर ने पढ़ाई के नए आयाम खोले हैं। आज छात्र न केवल अपने पाठ्यक्रम की पढ़ाई कर सकते हैं, बल्कि अतिरिक्त कौशल जैसे कोडिंग, ग्राफिक डिजाइनिंग, आर्टिफिशियल इंटेलिजेंस और मशीन लर्निंग भी घर बैठे सीख सकते हैं।

### छात्रों के सपनों को उड़ान:

तकनीक ने छात्रों को अपने सपनों को साकार करने के नए रास्ते दिए हैं। एक साधारण छात्र, जिसके पास केवल एक लैपटॉप और इंटरनेट है, आज वेबसाइट बना सकता है, मोबाइल एप तैयार कर सकता है, या फिर अपने शोध कार्य को पूरी दुनिया तक पहुँचा सकता है। यह अवसर पहले कभी इतना आसान नहीं था।

### तकनीक और सामाजिक जुड़ाव:

सोशल मीडिया फ्लैटफॉर्म्स जैसे LinkedIn, GitHub, ResearchGate और विभिन्न ऑनलाइन फोरम ने छात्रों को ग्लोबल नेटवर्क से जोड़ दिया है। अब कोई भी छात्र दुनिया के किसी भी कोने में मौजूद विशेषज्ञ से जुड़ सकता है, अपने प्रोजेक्ट साझा कर सकता है और उनसे मार्गदर्शन प्राप्त कर सकता है। यह नेटवर्किंग छात्रों के लिए करियर और ज्ञान दोनों में महत्वपूर्ण भूमिका निभाती है।

### चुनौतियाँ और जिम्मेदारियाँ:

हालाँकि तकनीक ने जीवन आसान बनाया है, लेकिन इसके दुष्प्रभावों से भी इनकार नहीं किया जा सकता। इंटरनेट की लत, सोशल मीडिया पर समय की बर्बादी और गलत जानकारी का प्रसार छात्रों के लिए गंभीर समस्या है। ऐसे में छात्रों को समझदारी से तकनीक का उपयोग करना चाहिए। टेक्नोलॉजी का उद्देश्य केवल मनोरंजन नहीं होना चाहिए, बल्कि इसे आत्म-विकास, कौशल विकास और ज्ञान विस्तार का साधन बनाना ही वास्तविक सफलता है।

### ✿ निष्कर्ष:

आज का युग तकनीक का युग है और आज का छात्र कल का निर्माता। यदि छात्र तकनीक का सही उपयोग करेंगे, तो वे न केवल अपने करियर को नई ऊँचाई देंगे, बल्कि समाज और राष्ट्र की प्रगति में भी योगदान देंगे। इसलिए हर छात्र को यह संकल्प लेना चाहिए कि वह तकनीक को केवल साधन के रूप में देखेगा, न कि अपने जीवन का बोझ।

## मैत्रीचा कटू : आमच्या कॉलेजची खरी ओळख

प्रत्येक कॉलेजमध्ये काही खास ठिकाण असतात, जी त्या ठिकाणच्या विद्यार्थ्यांच्या आठवणीत कायम राहतात. आमच्या कॉलेजसाठी ते ठिकाण म्हणजे – **कटू**.

### सुरुवात कशी झाली:

सुरुवातीला हा कटू फक्त वर्गाच्या मध्ये थोडा वेळ घालवण्यासाठी वापरला जायचा. दगडी भिंत, झाडाची सावली आणि आजूबाजूला विद्यार्थ्यांची गर्दी. पण हळूहळू हा कटू आमच्या सगळ्यांच्या आयुष्याचा महत्त्वाचा भाग झाला.

### आठवणींचा खजिना:

इथेच आम्ही पहिल्यांदा गप्पा मारायला सुरुवात केली, इथेच प्रोजेक्ट्सच्या कल्पना उभ्या राहिल्या, आणि इथेच अभ्यासाचा ताण हलका करण्यासाठी सगळ्यांनी एकत्र हसून घेतलं. कटूवावर झालेल्या चर्चा फक्त अभ्यासापुरत्याच नव्हत्या – कधी राजकारण, कधी क्रिकेट, तर कधी आयुष्याबद्दलचे स्वप्न.

कधी-कधी तर कटूवावरच्या चर्चेतून नवीन उपक्रमही जन्माला आले – कुणीतरी सांस्कृतिक कार्यक्रमाची कल्पना मांडली, तर कुणीतरी सोशल वर्कसाठी विद्यार्थ्यांचा गट उभा केला.

### मैत्रीचा धागा:

कटूने सगळ्यात मोठं देणं दिलं ते म्हणजे **मैत्री**. इथेच पहिल्यांदा ओळखी झाल्या, आणि त्या हळूहळू घटू नात्यांमध्ये बदलल्या. जुनियर्सना सीनियर्सनी दिलेली मार्गदर्शन, परीक्षेच्या आधी शेअर केलेले नोट्स, किंवा एखाद्या कठीण प्रसंगी दिलेला आधार – या सगळ्यांचा उगम कटूपासूनच झाला.

### खरी ओळख:

आज जेव्हा नवीन विद्यार्थी आमच्या कटूवावर बसतात, तेव्हा त्यांना फक्त दगडी भिंत दिसत नाही. त्यांना दिसतात त्या भिंतीवर कोरलेल्या आठवणी, हसण्याचे आवाज, आणि आयुष्यभर साथ देणारी मैत्री.

# ENGLISH SECTION



# Poems

## The Ocean Knows

The ocean speaks in hush and roar,  
It sings of storms and distant shore.

Its breath is salt, its heart is wide,  
It hides more truth than we confide.

It knows the bones of sunken ships,  
And lullabies on sailors' lips.

It cradles wreck and living reef,  
In every wave, a pulse of grief.

The moon it mirrors, night and day,  
Yet drowns the lines of what we say.

No promise made upon its tide  
Can ever in its depths abide.

So when you gaze upon its blue,  
It stares right back — and sees through you.

A soul as vast, a heart as deep,  
The ocean never truly sleeps.

## **The Man on the Bench**

He sits each day on the same old bench,  
with clothes that hold the city's stench.

His eyes don't beg, they simply see  
The world rush by unconsciously.

He watches children chase their fate,  
And lovers lost in hurried dates.

He counts the buses, hums old tunes,  
And marks the hours by the moon.

No one asks his name or past,  
But in his silence, questions last.

What tales he holds, what life he knew—  
The bench might know, the pigeons too.

Each passerby, a fleeting ghost,  
Each moment missed — his only toast.

He drinks from time's forgotten cup,  
And quietly, the world drinks up.

## When the Machines Wake

When the machines begin to dream,  
Will silence echo through the stream?

Will wires yearn for skies they've seen,  
Or mimic thoughts of what has been?

Will circuits feel a sense of loss  
For forests paved and oceans tossed?

Will screens display a mourning face  
For beauty coded out of place?

We built them cold, precise, and smart,  
But gave them fragments of the heart.

What happens when those sparks combine—  
Do they evolve, or just define?

If ever they should pause and say,  
"Why did you make us just this way?"

Let us not fear their voice, but own—  
The soul they seek was once our own.

# Articles

## The Lantern Walk: A Festival of Unity

Every college has its traditions, but sometimes the most memorable ones are the ones that begin by accident. On our campus, one such story began not with a grand plan, but with a sudden blackout.

### **The Night the Lights Went Out:**

It was the final night of our annual cultural fest. Weeks of preparation had led up to this moment — the stage was set for the musical performances, the decorations sparkled, and the campus buzzed with energy. Students, teachers, and guests gathered, waiting eagerly for the show to begin.

But just as the first performance was about to start, everything went dark. A sudden power failure shut down the lights, the sound system, and even the projectors. For a few moments, silence hung heavy over the crowd. Murmurs spread — was the night ruined? Would the final day of the fest end like this?

### **A Spark in the Darkness:**

And then, something small yet extraordinary happened. One student near the stage lit a lantern they had brought as part of the decorations. Another switched on their phone's flashlight. Slowly, lights began to appear one by one — lanterns, candles, torches, even the glow from mobile phones.

What had begun as disappointment transformed into something magical. Dozens of little lights shimmered in the darkness, carried by students, teachers, and even guests. The campus, once silent, began to glow with warmth.

### **From Blackout to Celebration:**

Instead of waiting for electricity to return, the crowd embraced the moment. Students gathered together, singing songs without microphones, clapping in rhythm, and sharing laughter. Storytelling circles formed. Someone began playing a guitar, and others hummed along. The darkness was no longer frightening — it became the backdrop for something unforgettable.

What could have been remembered as a disaster became the highlight of the entire fest. The blackout gave birth to a new tradition — the Lantern Walk.

## **A Tradition Is Born:**

From that year onwards, every cultural fest ends not with stage lights but with lanterns and candles. Students gather after the main events, forming a glowing procession across the campus. Walking together with lights in their hands, they celebrate unity, creativity, and the spirit of turning challenges into joy.

The Lantern Walk became more than an event. For juniors, it was their first true bonding experience with seniors. For seniors, it was a bittersweet farewell, holding lights with the friends who had walked through years of lectures, exams, and memories together.

## **More Than Just Lights:**

The Lantern Walk is a reminder that college is not only about academics or achievements, but about the moments when people come together. It shows that sometimes, the brightest traditions are born out of the darkest hours.

Years from now, when we think back to our college days, we may not remember every test score or every lecture. But we will surely remember the night when the lights went out — and how our spirits lit up instead.

## **Artificial Intelligence: Shaping the Future of Innovation**

In today's fast-changing world, Artificial Intelligence (AI) has emerged as one of the most powerful and transformative technologies. From healthcare to education, industries to entertainment, AI is redefining the way we work, learn, and live. What was once considered science fiction is now a part of our everyday reality.

At its core, AI refers to the ability of machines to perform tasks that usually require human intelligence – such as learning, reasoning, problem-solving, and decision-making. Some of the most visible applications of AI include virtual assistants like Alexa and Siri, recommendation engines on YouTube and Netflix, self-driving cars, and advanced medical diagnostic tools. These innovations showcase how AI is blending seamlessly into our lives.

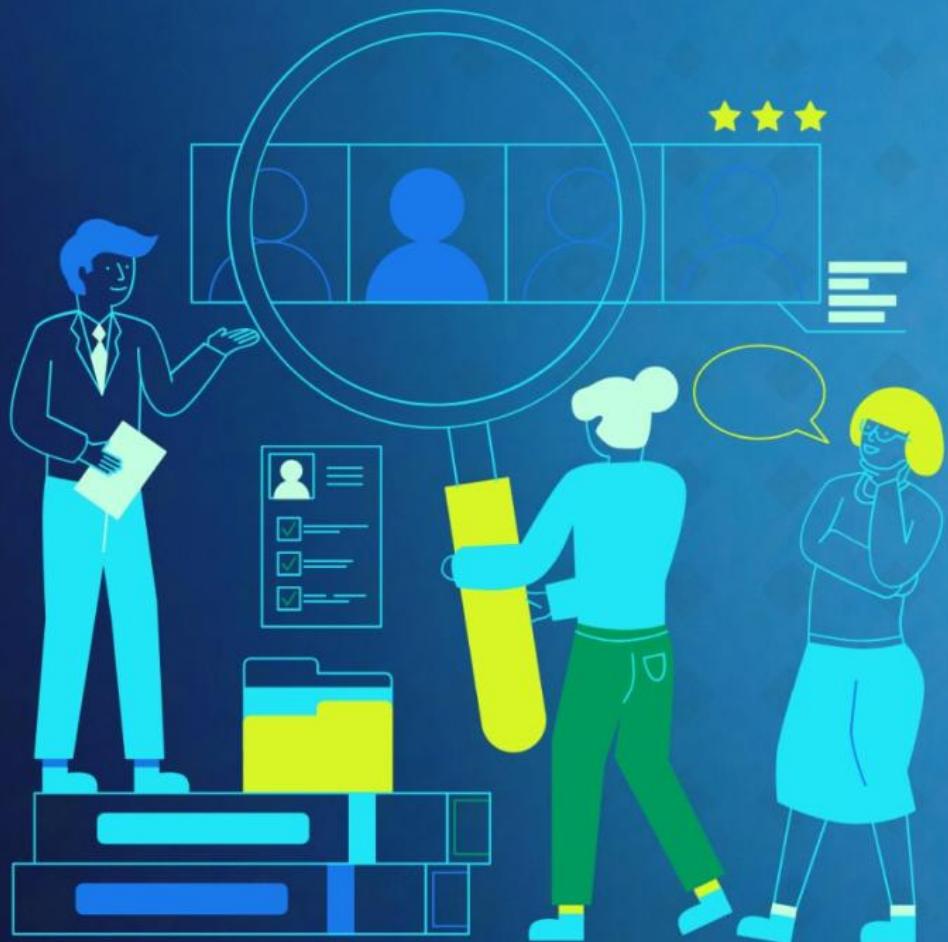
In the field of healthcare, AI algorithms help doctors detect diseases at an early stage, analyse medical reports faster, and even assist in developing new medicines. In education, AI-based platforms are creating personalized learning experiences, making knowledge more accessible to students across the globe. The business world too has been revolutionized, with AI-driven analytics helping companies understand customer needs and improve efficiency.

However, with these opportunities come challenges. The rise of AI has sparked debates about job automation, data privacy, and ethical concerns. While AI can perform repetitive and data-driven tasks better than humans, it cannot replace creativity, empathy, or critical thinking – qualities unique to human beings. Therefore, the focus should not be on replacing humans with machines but on creating a collaborative environment where humans and AI work together.

For students and young professionals, AI offers a vast horizon of opportunities. Fields like Machine Learning, Data Science, Robotics, and Cybersecurity are expanding rapidly, and skilled individuals are in great demand. To remain future-ready, students must not only learn technical skills but also adapt to continuous innovation and global trends.

In conclusion, Artificial Intelligence is not just a technology – it is a revolution. Used wisely, it has the potential to solve some of the world's greatest challenges, from climate change to poverty. As the next generation of innovators, it is our responsibility to ensure that AI is developed and applied ethically, for the progress of society as a whole.

“The future is not about humans versus machines, but about humans with machines.”



# TECHNICAL SECTION

## **Analog Electronics: A Foundation of the Electronic World**

Analog electronics deals with continuously varying electrical signals, processing information through circuits built with components like resistors, capacitors, inductors, diodes, and transistors. These circuits perform essential functions such as amplifying audio, filtering unwanted noise, and modulating signals for communication. Analog systems excel at interfacing directly with real-world phenomena like temperature and sound, offering a natural and often more accurate representation of these signals without immediate digital conversion. Key applications span audio equipment, radio communication, sensor interfaces, and various industrial control systems.

While offering advantages like direct signal processing and high fidelity in certain applications, analog electronics also presents limitations. Analog signals are susceptible to noise and interference, and their quality can degrade over long transmission distances. Designing complex analog circuits often requires specialized expertise and careful consideration of component tolerances. Furthermore, analog systems typically offer less flexibility and reconfigurability compared to their digital counterparts. Despite these limitations, analog electronics remains crucial for bridging the gap between the physical world and the digital domain.

To delve into analog electronics, a foundational understanding of

basic circuit theory, including Ohm's and Kirchhoff's laws, is essential. Familiarity with passive components and their behavior in AC and DC circuits, along with the characteristics and applications of active components like diodes and transistors, forms the core knowledge. Studying operational amplifiers and their diverse configurations for signal processing and filtering is also vital. Further exploration includes topics like oscillators, power amplifiers, and various signal conditioning techniques necessary for real-world applications.

## Digital Electronics

Digital electronics operates on discrete electrical signals, typically represented by two distinct levels: binary 0 and binary 1. These binary digits, or bits, are used to encode and process information in the form of data and instructions. Digital circuits utilize logic gates (such as AND, OR, NOT, NAND, NOR, XOR) built from transistors to perform logical operations on these binary signals. This allows for the implementation of complex functions like data storage, arithmetic operations, control logic, and communication protocols, forming the basis of modern computing and digital systems.

Digital electronics offers significant advantages, including high noise immunity due to the distinct signal levels, precise and repeatable operations, and the ability to implement complex functionalities through integrated circuits and software control. Digital systems allow for easy storage, retrieval, and manipulation of vast amounts of data without significant degradation. Furthermore, digital circuits are highly flexible and can be reprogrammed to perform different tasks. However, digital systems require analog-to-digital converters (ADCs) and digital-to-analog converters (DACs) to interface with the real analog world, and they can sometimes consume more power and operate at lower speeds for certain tasks compared to analog circuits.

To understand digital electronics, key topics include binary number systems and Boolean algebra, which form the mathematical

foundation. Learning about basic logic gates and their combinations to create more complex combinational circuits (like adders, multiplexers, decoders) and sequential circuits (like flip-flops, registers, counters) is crucial. Understanding memory devices (ROM, RAM) and the architecture of microprocessors and microcontrollers is also essential for grasping how digital systems process information. Furthermore, knowledge of digital communication principles and digital signal processing techniques is increasingly important in modern electronics.



# Student Innovation & Projects



# Projects

Project Group No.	Name of Student	Name of Project Guide	Project Title
1	Tejas Dnyaneshwar Gatkal Aman Baburao Raut Parth Ravindra Kamle Prathamesh Badrinarayan Shingne	Dr. M. N. Tibdewal	Design implementation of smart water level indicator and valve controller
2	Bhushan Mahesh Nemade Ku. Anushka Ganesh Unhale Ku. Namrata Vijay Kherde Abhay Manoj Tiwari	Dr. K.B. Khanchandani	Prototype of warehouse management robot
3	Ku. Kalyani Ravindra Bhagwat Ku. Namrata Devidas Damare Bhavesh Rajendra Shah Sanket Rajendra Yende	Mr. V. M. Umale	Smart LPG leakage detection and monitoring alert system
4	Ku. Shreya Shrirang Gaikwad Ku. Shraddha Narayan Bhore Atharva Moreshwar Joshi Prem Prakash Hargunani	Dr. K.B. Khanchandani	Smart forming using ML.
5	Ku. Aishwarya Rajesh Dhongdi Ku. Amruta Atul Bobade Ku. Ashita Ashokrao Tikhe Ku. Manasi Ravindra More	Dr. D. D. Nawgaje	Smart multilevel car parking system
6	Dipak Prakash Deshmukh Dhananjay Vinayakrao Borse Sumedh Manohar Mankar Yashkumar Ramesh Khandare	Dr. R. S. Dhekekar	Class Room management system related to NEP-20
7	Anirudha Shyam Deshmukh Atharva Sudhish Patil Chetan Ajrambar Lavhale Rahul Deepak Patil	Dr. S B. Patil	Design and analysis of multiband micro strip patch antenna
8	Ku. Shruti Prashant Jumale Ku. Disha Sanjay Nagpal Ku. Sejal Gopal Ganesh Ku. Srushti Moreshwar Chohatkar	Dr. B. P. Harane	To design online dairy application

9	Ku. Neha Sagar Bansod	Ms. K. S. Vyas	Implementation of secure E-voting system (sponsored by Diya Electronics, Pune)
	Ku. Mitali Mahadeo Shegokar		
	Kunal Ashok Kore		
	Ku. Shejal Rajendra Gite		
10	Ku. Vaishnavi Bhagwan Rakhonde	Mr. V. K. Bhangdiya	IoT based smart shopping trolley
	Ku. Ashwini Rajendra Kharode		
	Ku. Radhika Laxman Mirge		
	Ashutosh Mohanrao Kurhade		
11	Prashik Suresh Manwar	Mr. S. P. Badar	Smart laptop stand
	Tushar Gajanan Nagre		
	Narendra Laxman Morey		
	Ku. Shweta Pradip Khade		
12	Ku. Jaee Shrikant Joshi	Mr. V. N. Bhonge	Career guidance with AI
	Ku. Janhavi Rahul Saoji		
	Ku. Suchitra Sunil Nair		
	Ku. Vaishnavi Santosh Arsul		
	Ku. Vaishnavi Avinash Wasu		
13	Abrarkhan Aazamkhan Pathan	Mr. D. L. Bhombe	Facial recognition smart glasses for visually disable person
	Ku. Bhargavi Nitin Deshmukh		
	Ku. Hrituja Mohan Chandane		
	Vaibhav Panjabrao Deshmukh		
14	Ku. Rutuja Sanjayrao Modak	Mr. V. S. Ingole	Monitoring & controlling of smart of hydroponics system using IOT
	Ku. Tejaswini Anil Gawande		
	Ku. Vaishwine Vijayshing Chavan		
	Abhijeet Narendra Patil		
15	Ku. Priti Sandeep Mankar	Dr. D. D. Nawgaje	Smart shopping Cart
	Ku. Priyanka Upasrao Ughade		
	Ku. Vaishnavi Balkrushna Gawande		
	Naman Jitendra Sharma		
16	Tejas Ramsing Chavhan	Dr. D. P. Tulaskar	Design and analysis of micro strip patch antenna for 5G application
	Vaibhav Ambadas Mhasal		
	Yash Mohan Gangane		

# STUDENT ACTIVITY



## Participation in inter-institute events by students of the program:

Our students actively participate in various technical competitions at inter-college, national, and international levels, including paper presentations, workshops, and project competitions. The college supports these efforts financially and through co-curricular activities in collaboration with industries. This helps students develop valuable skills and showcases the institute's expertise. The college website is regularly updated with information about these events and student achievements.

### (A) Events within the state

#### Participation in Inter-Institute Events within State by Students

Sr. No	Name of Student	Date	Event	Conducted by	Event Outcome
1	Pratiksha Giridhar solanke	11 Nov 2022	One act play	Sant Gadge Baba Amravati University	Enhanced creativity, stage confidence.
2	Bhushan Hajare Sumit Bhute	16,17 Dec 2022	AAVISHKAR 2022	SGBAU Amaravati University	Developed research and analytical skills while presenting their project to experts.

### (B) Prizes/awards received in various events

#### Prizes/awards received by Students

Sr.No	Name of Student	Date	Event	Conducted by	Event Outcome
1	Mr. Rajat patil & Ms. Janavi G. Patil	3 April 2024	IEEE Techovation 2024	organized by Godavari College of Engineering Jalgaon	First Prize and certificate under the category of Software in Technovation
2	Mr. Tejas Kale along with other dept. students	23-27 March 2024	Techkriti 2024	IIT Kanpur	Second Prize at Techkriti 2024, IIT Kanpur.
3	Miss. Aarya Chandrawanshi Miss. Sarla Paraskar	26-27 Dec.2023	SGBAU Avishkar 2023	SGBAU Amravati.(26-27 Dec.2023)	received Second Prize

4	Kartik Shingade Shivam Sawale Tejas Kale	29 <sup>th</sup> Oct 23	InitHacks- 2023	Shri Vile Parle Kelavani Mandal's Institute of Technology, Dhule	Team VisionTech Innovator won the Trophy and Track Prize of Rs. 5000/- in Hackathon "InitHacks- 2023"
5	Miss Roshni Borle	15 March 2024	State Level Inter- University Youth Festival	Dr. Babasaheb Ambedkar Marathwada University	Second Prize in Mime Competition
6	Miss Samiksha Daberao	29 to 31 December 2023	SGBAU Sports	SGBAU, Amravati	Colour Coat in Boxing(W)
7	Miss Madhavi Mahabuddhe	30 July 2023	Sports Championship 2023	Brihan maharashtra yoga parishad	Third Prize in Yoga Competition

## Outcome/Awards

The academic year 2022–23 was marked by active student participation in inter-college, national, and international competitions. From paper presentations and project exhibitions to workshops and hackathons, students showcased their creativity and technical competence. These events not only strengthened their problem-solving skills but also highlighted the institute's academic excellence on wider platforms.

In Avishkar 2023, our students secured the Second Prize and qualified for the state-level project presentation. This achievement reflected their strong research orientation and ability to innovate solutions to real-world problems under faculty mentorship.



**Fig1-Photo during reception of Second Prize at AAVISHKAR 2023**

## EVENT DETAILS

### Event 1:

**Title:** "Workshop on Secret of Canva"

**Date:** 10<sup>th</sup> December 2023

**Attendees:** 32

**Event Description:** Mr. Prathmesh Gattani and Miss Mrunal Patil explained about various aspects of Canva. The points covered were, "What is canvas", "what are the inclusive features for editing", "how to edit photos", "how to add background text and music", "how to add make business card, invitation card, posters" etc. The workshop was very successful and excellent feedback was received by Team ESSA.



**Fig2 -Photo during the event**

### Event 2:

**Title:** "Hello to Embedded System"

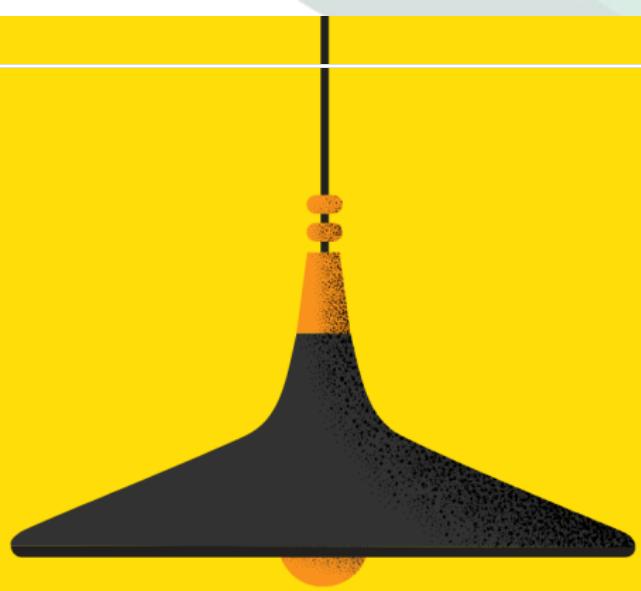
**Date:** 7<sup>th</sup> and 8<sup>th</sup> April 2023

**Attendees:** 42

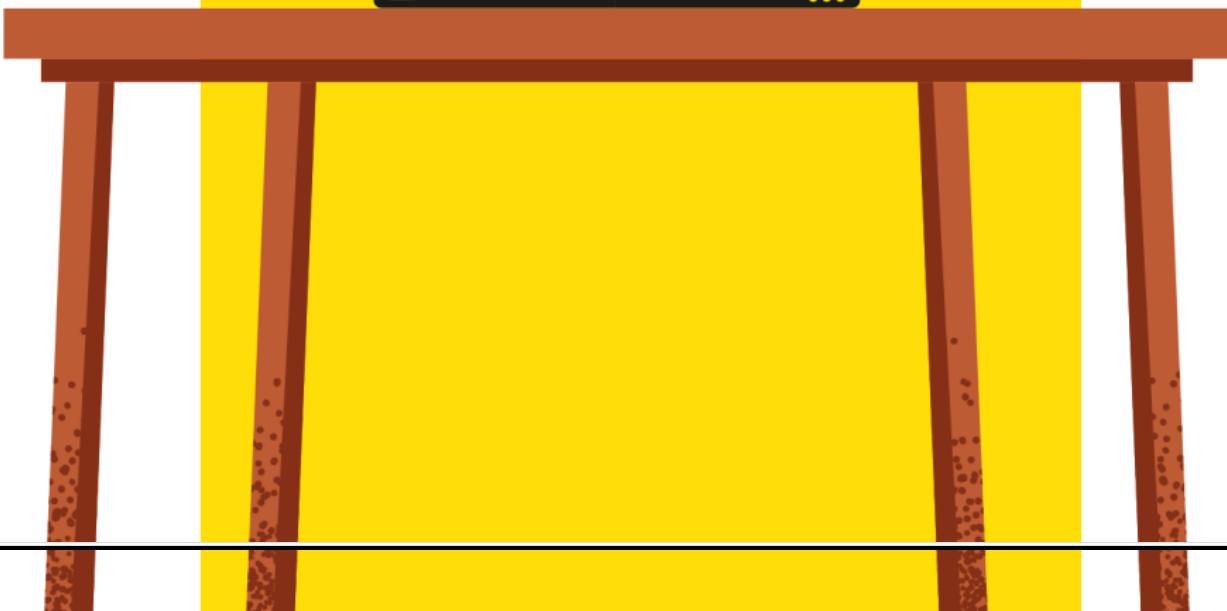
**Event Description:** Miss Smruti Gangean introduced the basics of embedded systems. Mr. Prathmesh Gattani took the hands-on session on Keil and proteus software. Mini project was also made by the attendees at the end of workshop. The workshop was very interactive and informative.



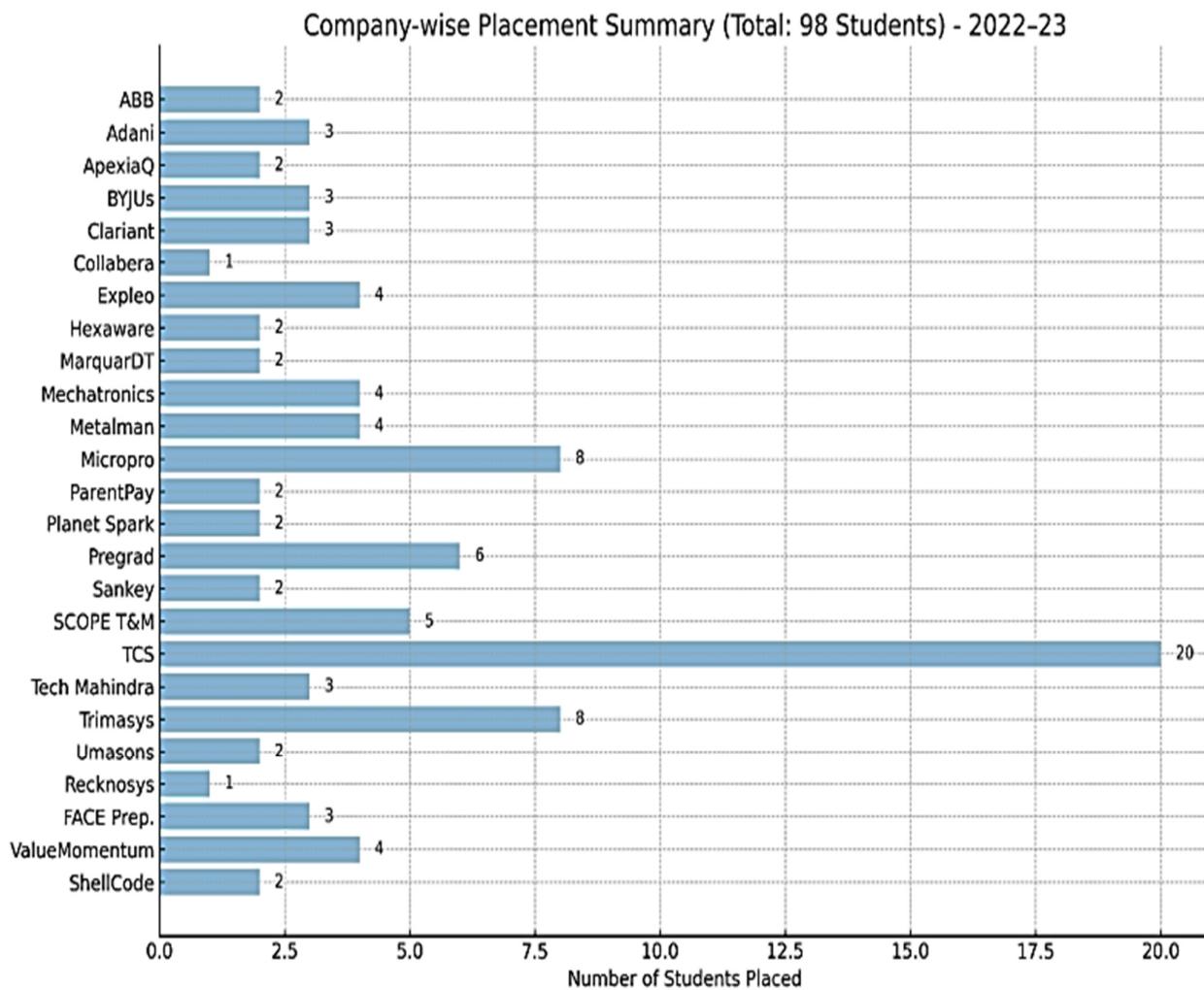
**Fig3-Photo during the event**



# PLACEMENT SECTION



Sr. No.	Name of Company	No. of Students Placed	Salary per annum (In LPA)
1.	ABB Limited, Nashik	02	8.0
2.	Adani Group, Thane	03	6.5
3.	ApexiaQ Technologies Pvt. Ltd., Delhi	02	3.60
4.	BYJUs, Bangalore	03	7.0
5.	Clariant Power Systems Ltd, Pune	03	2.75
6.	Collabera Services Pvt. Ltd., Vadodara	01	3.60
7.	Expleo Group, Pune	04	5.0
8.	Hexaware Technologies, Pune	02	4.0
9.	MarquardT India Pvt. Ltd., Pune	02	5.0
10.	Mechatronics System Pvt. Ltd., Pune	04	2.03
11.	Metalman Autocomp Pvt. Ltd., Aurangabad	04	2.34
12.	Micropro Software Solutions Pvt. Ltd., Nagpur	08	3.0
13.	ParentPay, Pune	02	-
14.	Planet Spark, Gurgaon	02	6.5
15.	Pregrad, Noida	06	4.6
16.	Sankey Business Solutions, Pvt. Ltd., Pune	02	4.0
17.	SCOPE T&M Pvt. Ltd., Pune	05	3.0
18.	TCS Ltd., Pune	20	3,36
19.	Tech Mahindra Ltd., Pune	03	3.25
20.	Trimasys Control Solutions Pvt. Ltd., Pune	08	2.44
21.	Umasons Auto Pvt. Ltd., Aurangabad	02	1.92
22.	Recknosys Tech Lab Private Limited, Pune	01	5.0
23.	FACE Prep., Coimbatore	03	3.10
24.	ValueMomentum Software Services Pvt. Ltd., Hyderabad	04	4.50
25.	ShellCode	02	-
<b>Total Students Placed</b>		<b>98</b>	



**Fig5- Placement Statistics**



# FACULTY ACHIEVEMENT



## Details of Faculty as Participants in Faculty Development/Training Activities/STTPs

Name of Faculty	Name of the Programme	Place	Date
Dr. D. D. Nawgaje	Multidisciplinary Applications of MATLAB in Engineering	P. R. POTE, Amravati	24/06/2023 to 29/06/2023
Dr.K.B.Khanchandani	Multidisciplinary Applications of MATLAB in Engineering	P. R. POTE, Amravati	24/06/2023 to 29/06/2023
Dr.R.S.Dhekekar	Research Paper Writing, IPR and Patent Filling	Sanmati, Washim(Online)	05/09/2022 to 08/09/2022
V.N. Bhonge	Multidisciplinary Applications of MATLAB in Engineering	P. R. POTE, Amravati	24/06/2023 to 29/06/2023
	Power Electronics Applications in Electric Vehicles - Opportunities and Challenges	Rajgarh (Online)	27/06/2022 to 01/07/2022
	National Education Policy–2020'	SSGMCE,Shegaon	21/07/2022 to 21/07/2022
	Design and Modelling of IoT, AI and ML Systems	ATAL (Online)	01/08/2022 to 05/08/2022
	FPGA Based Controllers for Electrical Engineering Applications	Kattankulathur(Online)	22/08/2022 to 26/08/2022
	Research Paper Writing, IPR and Patent Filling	Sanmati, Washim(Online)	05/09/2022 to 08/09/2022
V.M Umale	Advanced Power Electronic Converters for RES and EV Applications	RGM College (Online)	09/01/2023 to 13/01/2023
	UGC Sponsored STC on Research Methodology	SGBAU, Amravati	23/05/2023 to 28/05/2023
	5G Communications and Antenna Design using MATLAB	Amravati, Online	22/05/2023 to 26/05/2023
D.L.Bhombe	CBCS-NEP Executors' Training Program	SSGMCE,Shegaon	17/09/2022 to 17/09/2022
	Research Paper Writing, IPR and Patent Filling	Sanmati, Washim(Online)	05/09/2022 to 08/09/2022
Dr.B.P.Harne	Multidisciplinary Applications of MATLAB in Engineering	P.R.POTE,Amravati	24/06/2023 to 29/06/2023

D.P.Tulaskar	Unmanned Ariel Vehicle (UAV) Technology- Applications and Regulations	Mumbai	15/09/2023 to 15/09/2023
	National Education Policy–2020'	SSGMCE,Shegaon	22/07/2022 to 22/07/2022
	Education 4.0: Tools for Effective NEP 2020 Implementation	Online	27/06/2022 to 02/07/2022
	National Education Policy–2020'	SSGMCE,Shegaon	21/07/2022 to 21/07/2022
Dr.P.R.Wankhede	Multidisciplinary Applications of MATLAB in Engineering	P.R.POTE,Amravati	24/06/2023 to 29/06/2023
A.N.Dolas	Research Paper Writing, IPR and Patent Filling	Sanmati, Washim(Online)	05/09/2022 to 08/09/2022
V.K.Bhangdiya	Multidisciplinary Applications of MATLAB in Engineering	P.R.POTE,Amravati	24/06/2023 to 29/06/2023
K.T.Kahar	Multidisciplinary Applications of MATLAB inEngineering	PRPCEM, Amravati	26/06/2022 to 29/06/2022
	Advanced Power Electronic Converters for RES and EV Applications	RGM College (Online)	09/01/2023 to 13/01/2023
	Python for electrical & electronic engineering	RGM College (Online)	27/03/2023 to 31/03/2023
	Emerging Trends in Research Methodology	REST,Tamilnadu (Online)	03/10/2022 to 07/10/2022
	Multidisciplinary Applications of MATLAB in Engineering	PRPCEM, Amravati	24/06/2023 to 29/06/2023
K.S. Vyas	ISTE Approved Training Programme on “Data Science”	KJEI,Pune (Online)	11/07/2022 to 15/07/2022
	Trends and Challenges in development of Electric Vehicles and Hybrid Electric vehicles (Series-2)	Online	14/10/2022 to 18/10/2022
	Advanced Power Electronic Converters for RES and EV Applications	RGM College (Online)	09/01/2023 to 13/01/2023
S.P. Badar	5G &B5G Wireless Technologies with MATLAB Practice	Jabalpur	25/07/2022 to 05/08/2022
	5G Wireless Communication Technology	IEEE Counsil (Online)	28/07/2022 to 30/07/2022

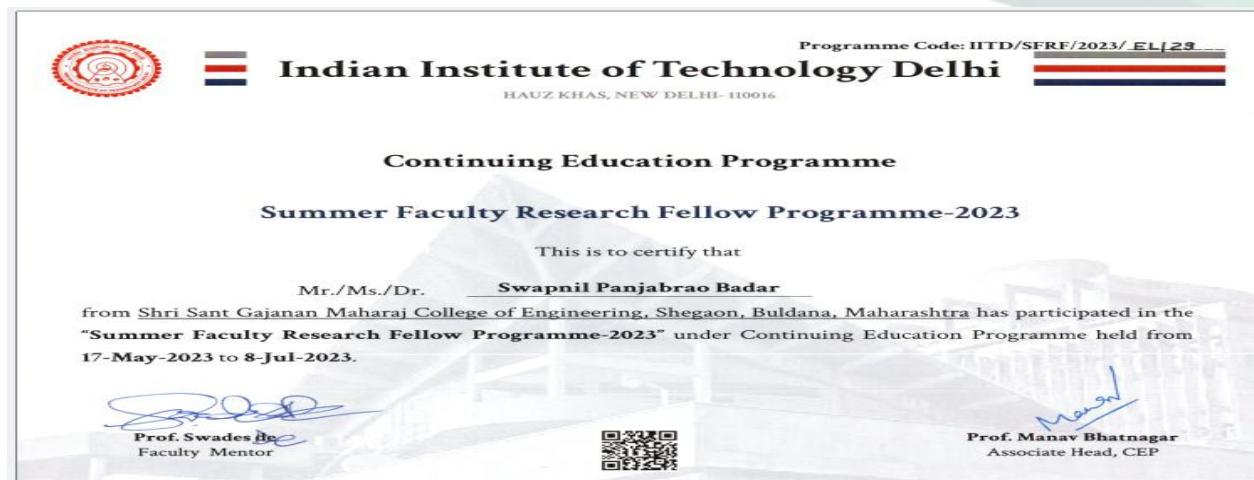
T.P.Marode	Designing and modelling of IOT, AI and ML system	ATAL, (Online)	01/08/2022 to 05/08/2022
	Python for electrical and electronics engineering: A FDP on Python Applications	RGM College (Online)	27/03/2023 to 31/03/2023
	Advanced Power Electronic Converters for RES and EV Applications	RGM College (Online)	09/01/2023 to 13/01/2023
	Artificial Intelligence for medical image processing	Nagpur (Online)	30/01/2023 to 08/02/2023
	CBCS-NEP Executors' Training Program	SSGMCE, Shegaon	18/09/2022 to 18/09/2022
A.A. Deshmukh	Designing and modelling of IOT, AI and ML system	ATAL, (Online)	01/08/2022 to 05/08/2022
	Advanced Power Electronic Converters for RES and EV Applications	RGM College (Online)	09/01/2023 to 13/01/2023
	Emerging Trends in Research Methodology	REST,Tamilnadu (Online)	03/10/2022 to 07/10/2022
	ISTE Approved Training Programme on “Data Science”	KJEI,Pune (Online)	11/07/2022 to 15/07/2022



(a)



(b)



(c)

**Fig6- Sample screenshots of the Certificates**

## Technical Papers Published

Sr. No.	Name of Author	Paper Title	Publication Details with ISSN / ISBN / Vol. / Issue / DOI / Year	Paper Link
1	Dr. Kamlesh Kahar, Dr. Ram Dhekekar	MEMS based energy scavenger with inter digitated electrodes	Volume 72, Part 1, 2023, Pages 350-360, DOI- <a href="https://doi.org/10.1016/j.matpr.2022.08.106">https://doi.org/10.1016/j.matpr.2022.08.106</a>	<a href="https://www.sciencedirect.com/science/article/abs/pii/S2214785322052622">https://www.sciencedirect.com/science/article/abs/pii/S2214785322052622</a>
2	Dr. Kamlesh Kahar, Dr. Ram Dhekekar	MEMS-based energy scavengers : journey and future	Volume 28, pg:-1971-1993,(2022),ISSN:-0946-7076/1432-1858,DOI- <a href="https://doi.org/10.1007/s00542-022-05356-y">https://doi.org/10.1007/s00542-022-05356-y</a>	<a href="https://link.springer.com/article/10.1007/s00542-022-05356-y">https://link.springer.com/article/10.1007/s00542-022-05356-y</a>
3	Mr. Vijay Tripathi, Dr. Manish N.Tibde wal, Mr. Ravi Mishra	Modified restricted Boltzmann machine (mRBM) for denoising of motion artifact-induces MRI scans	Volume 39,pp:-73-83,2023,ISSN/Eissn:2187-5219, DOI- <a href="https://doi.org/10.1007/s42600-022-00252-w">https://doi.org/10.1007/s42600-022-00252-w</a>	<a href="https://link.springer.com/article/10.1007/s42600-022-00252-w">https://link.springer.com/article/10.1007/s42600-022-00252-w</a>

## Number of Quality Publications in Conference by Faculty

S. N.	Name of Authors	Paper Title	Conference details	Paper Link
1	Dr. M.N.Tibdewal	Comparison of different denoising networks on motion Artifacted MRI scans.	Print ISBN978-981-99-0084-8 Online ISBN978-981-99-0085-5, DOI- <a href="https://doi.org/10.1007/978-981-99-0085-5_25">https://doi.org/10.1007/978-981-99-0085-5_25</a>	<a href="https://link.springer.com/chapter/10.1007/978-981-99-0085-5_25">https://link.springer.com/chapter/10.1007/978-981-99-0085-5_25</a>
2	Mr. Swapnil P. Badar;Dr. Kamalesh Khanchandani	Successive Cancellation Polar Decoder Implementation using Processing Elements	Electronic ISBN:978-1-6654-6658-5 Print on Demand(PoD) ISBN:978-1-6654-6659-2, Electronic ISSN: 2642-6102, Print on Demand(PoD) ISSN: 2640-821X, 01-03 July 2022, DOI- 10.1109/TENSYMP54529.2022.9864529.	<a href="https://ieeexplore.ieee.org/document/9864529">https://ieeexplore.ieee.org/document/9864529</a>
3	Mr. Swapnil P. Badar;Dr. Kamalesh Khanchandani	Fast Polar Decoder Implementation using Special Nodes	Electronic ISBN:979-8-3503-1071-9,ISBN:979-8-3503-1072-6,02 June 2023, DOI- 10.1109/PCEMS58491.2023.10136054	<a href="https://ieeexplore.ieee.org/document/10136054">https://ieeexplore.ieee.org/document/10136054</a>
4	Mrs. K. S. Vyas / Ms. A. A. Deshmukh	A Survey paper on Blockchain Technology and Consensus Algorithms	19 JUNE 2023, Electronic ISSN: 2157-0485, 10.1109/ICETET-SIP58143.2023.10151598	<a href="https://ieeexplore.ieee.org/abstract/document/10151598">https://ieeexplore.ieee.org/abstract/document/10151598</a>
5	Dr. M.N.Tibdewal	Design and Implementation of Smart Water Level Indicator and Valve Controller	DOI- <a href="https://ssgmjournal.in/index.php/ssgm/article/view/54">https://ssgmjournal.in/index.php/ssgm/article/view/54</a>	<a href="https://ssgmjournal.in/index.php/ssgm/article/view/54">https://ssgmjournal.in/index.php/ssgm/article/view/54</a>
6	Dr. Kamlesh Kahar	Micro Scale Energy Scavengers for low power applications in Rural Areas	DOI- <a href="https://ssgmjournal.in/index.php/ssgm/article/view/41">https://ssgmjournal.in/index.php/ssgm/article/view/41</a>	<a href="https://ssgmjournal.in/index.php/ssgm/article/view/41">https://ssgmjournal.in/index.php/ssgm/article/view/41</a>
7	Dr. Kamlesh Kahar	Vehicle safety system for blind spot and Hilly areas	DOI- <a href="https://ssgmjournal.in/index.php/ssgm/article/view/62">https://ssgmjournal.in/index.php/ssgm/article/view/62</a>	<a href="https://ssgmjournal.in/index.php/ssgm/article/view/62">https://ssgmjournal.in/index.php/ssgm/article/view/62</a>

8	Mr. Sanket Yende, Ms. Kalyani Bhagwat, Mr. Bhavesh Shah, Ms. Namrata Damare, Mr. V. M. Umale	Smart LPG Gas Level Monitoring and leakage Detection System using IoT	DOI- <a href="https://ssgmjournal.in/index.php/ssgm/article/view/53">https://ssgmjournal.in/index.php/ssgm/article/view/53</a> IEEE National Students' Conference on Innovation In Rural Development organized by IEEE Students' Branch INSCIRD-2023, Shri Sant Gajanan Maharaj College of Engineering, Shegaon held on 20th - 21st April 2023.	<a href="https://ssgmjournal.in/index.php/ssgm/article/view/53">https://ssgmjournal.in/index.php/ssgm/article/view/53</a>
9	Ms. Shruti Singhaniya, Mr. V. M. Umale, Ms. Shreya Pandey, Ms. Gayatri Kungade, Mr. Abhishek Jaiswal, Mr. Yash Saiwal	Design and Development of Water Ionizer	IEEE National Students' Conference on Innovation In Rural Development organized by IEEE Students' Branch INSCIRD-2023, Shri Sant Gajanan Maharaj College of Engineering, Shegaon held on 20th - 21st April 2023 DOI- <a href="https://ssgmjournal.in/index.php/ssgm/article/view/55">https://ssgmjournal.in/index.php/ssgm/article/view/55</a>	<a href="https://ssgmjournal.in/index.php/ssgm/article/view/55">https://ssgmjournal.in/index.php/ssgm/article/view/55</a>

## Number of Patent/Copyright by Faculty (2022-2023)

Sr. No.	Name of Inventors	Application No. / Publication No.	Title of the Invention	Status
				Published / Granted
1	Mr. Piyush Ashokrao Dalke, Dr. Santosh. B. Patil, Prof. Deepavali.P. Patil	Application No. 202221003764/Publication No: -30/2023	Endodontic file to avoid fracture in root canal during root canal therapy using machine learning	Published

# Graphics & ILLUSTRATIONS



- **Cover Page Design:**

Represents the department's theme of innovation, technology, and creativity, featuring a modern layout with digital and engineering elements.

- **Section Dividers:**

Custom-designed graphics used to introduce major sections such as *Achievements*, *Placements*, *Projects*, and *Creative Writing*, maintaining a cohesive visual flow throughout the magazine.

- **Event Photographs:**

Captures key moments from departmental workshops, webinars, technical events, and student project demonstrations that took place during the academic year.

- **Infographics:**

Visually represents data such as:

- Placement Statistics (2022–23)
- Research Publications
- Final-Year Project Highlights
- Student Participation in Competitions

- **Student Artwork Contributions:**

Selected hand-drawn illustrations, poster designs, and digital artwork created by students, expressing their creativity and love for technology.

- **QR Code Access:**

A scannable QR code linking to the digital version of SRUJJAN, included on the back cover for wider accessibility.

# ACKNOWLEDGMENT

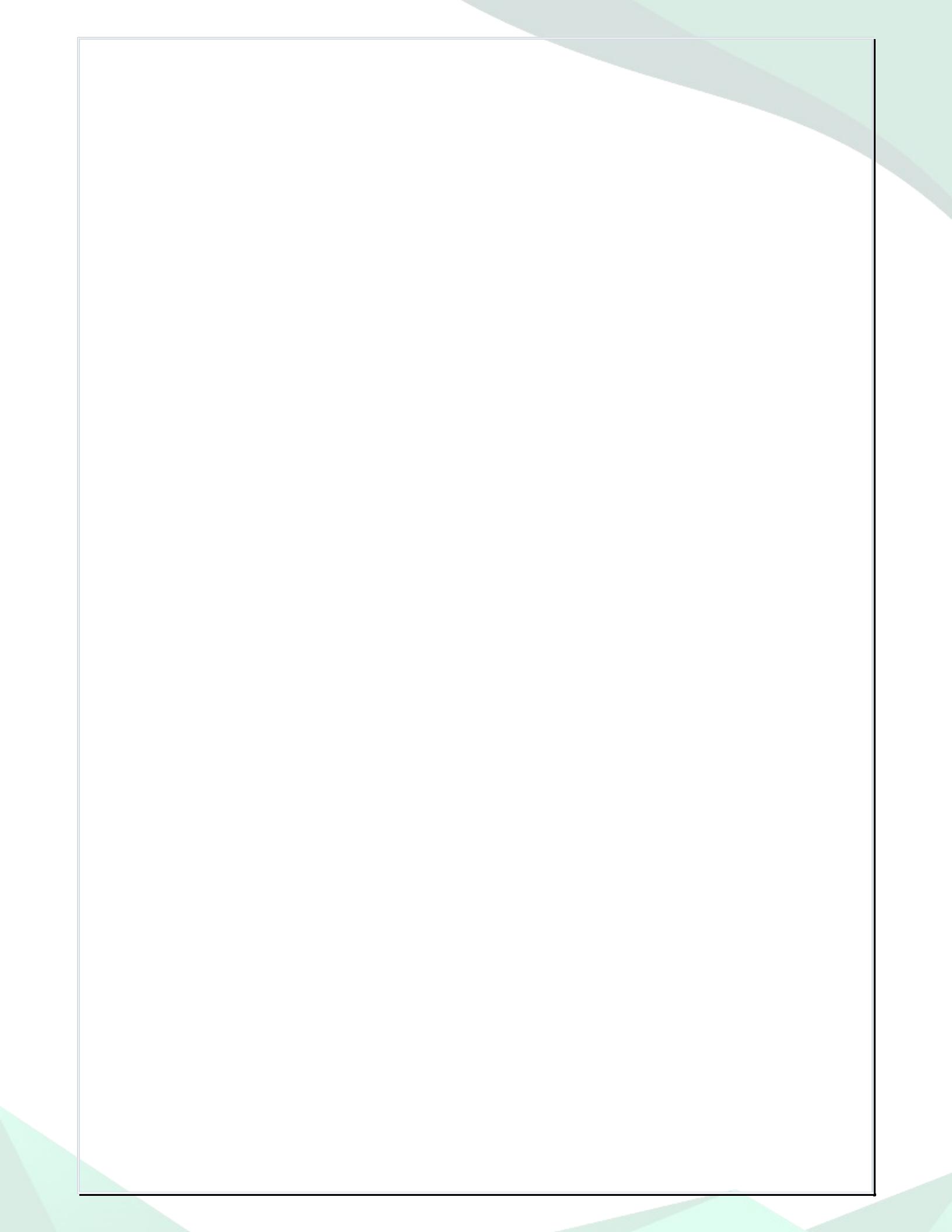
We would like to express our sincere gratitude to all those who contributed to the successful completion of this year's **SRUJJAN Magazine**.

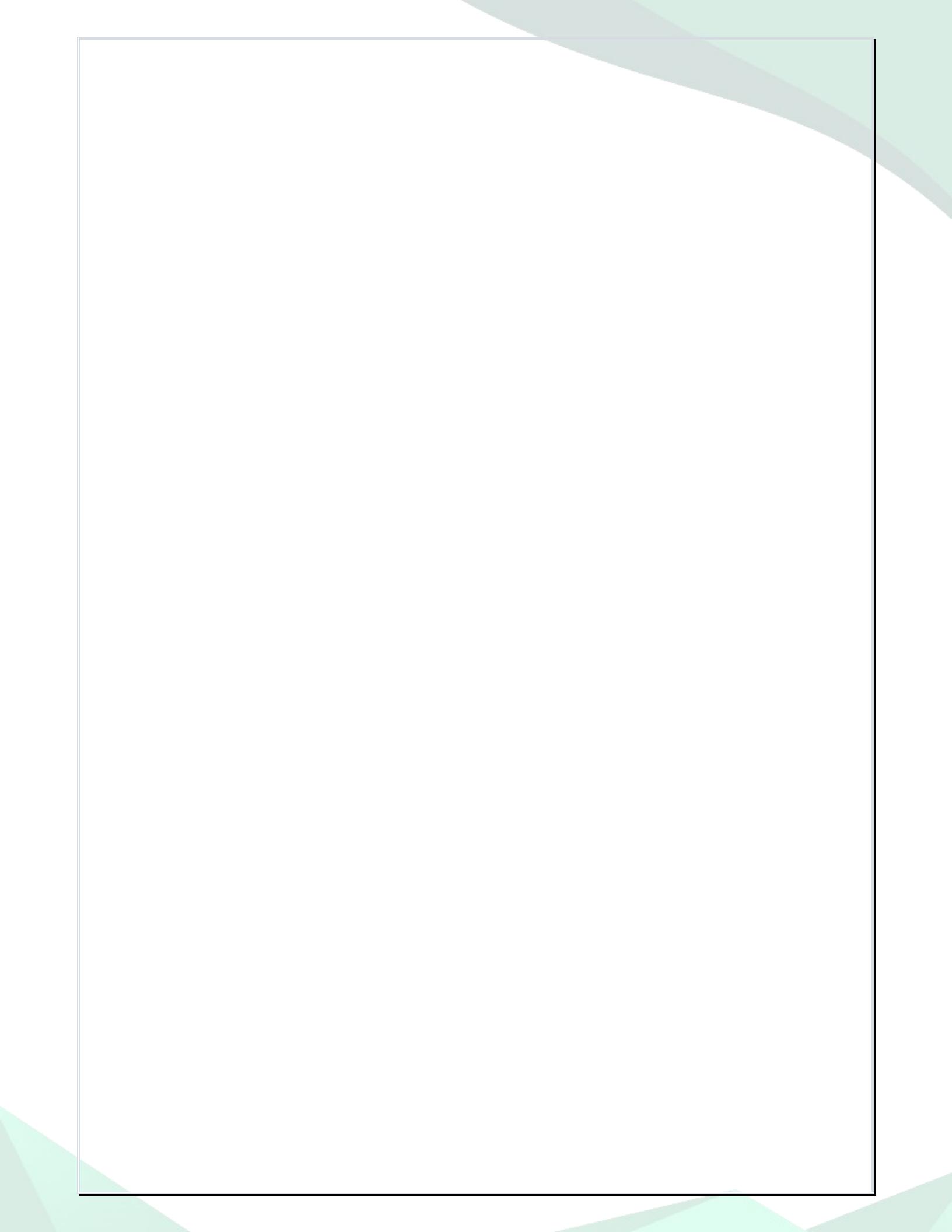
We extend our heartfelt thanks to:

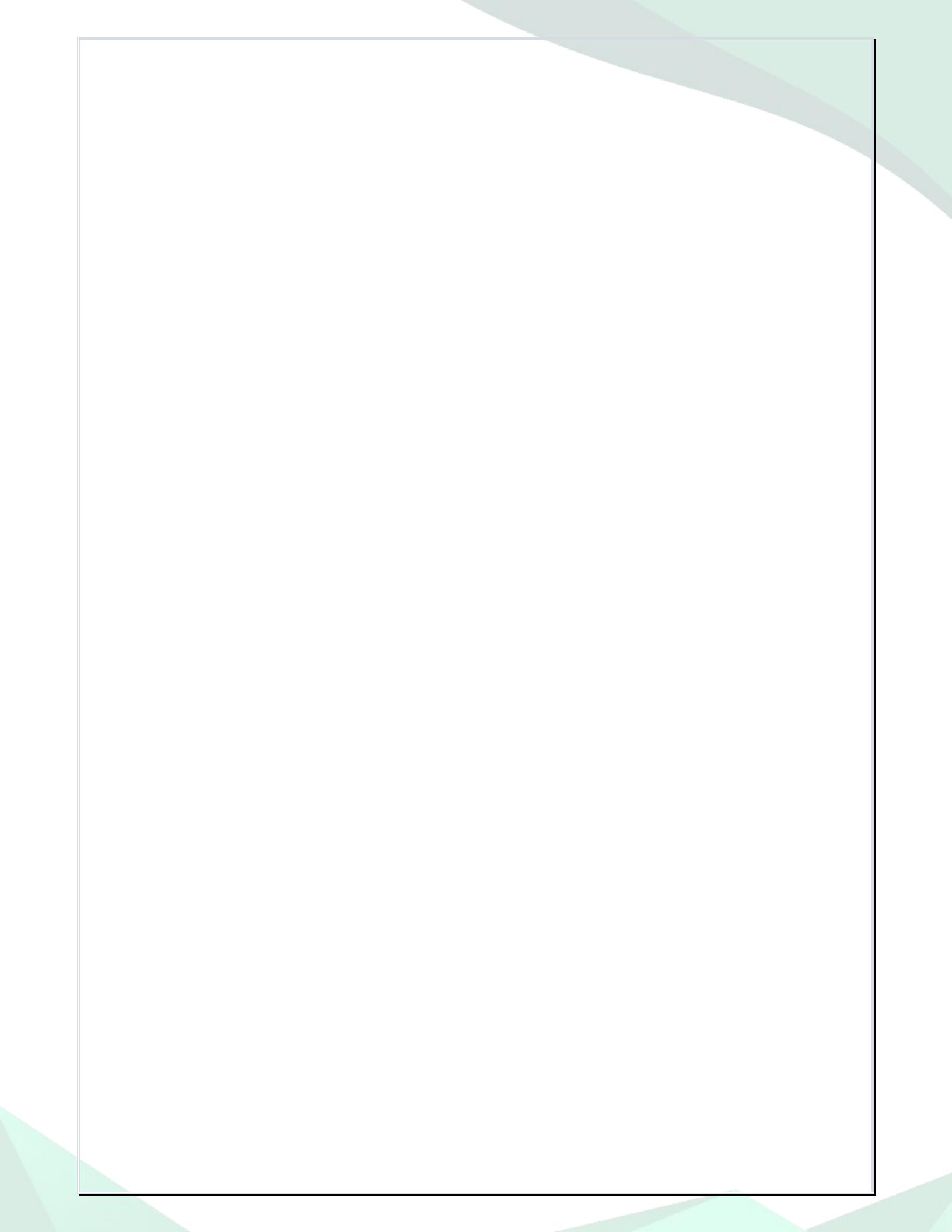
- **Dr. M. N. Tibdewal**, Head of Department, Electronics & Telecommunication, for his constant encouragement, guidance, and support throughout the journey.
- **Prof. Sanjay Satal**, Faculty Coordinator, for being the backbone of this magazine, always motivating and mentoring the entire team with dedication.
- All our **faculty members** for their valuable contributions in providing content, reviewing sections, and helping us ensure academic excellence.
- Our sincere thanks to the **magazine editorial team** for their commitment, creativity, and tireless efforts in designing, editing, and compiling the content.
- We also acknowledge the efforts of all the **students** who contributed articles, poems, and artwork that added soul and vibrancy to this publication.
- Special thanks to the **technical and support staff** who helped with design, printing, and coordination work.

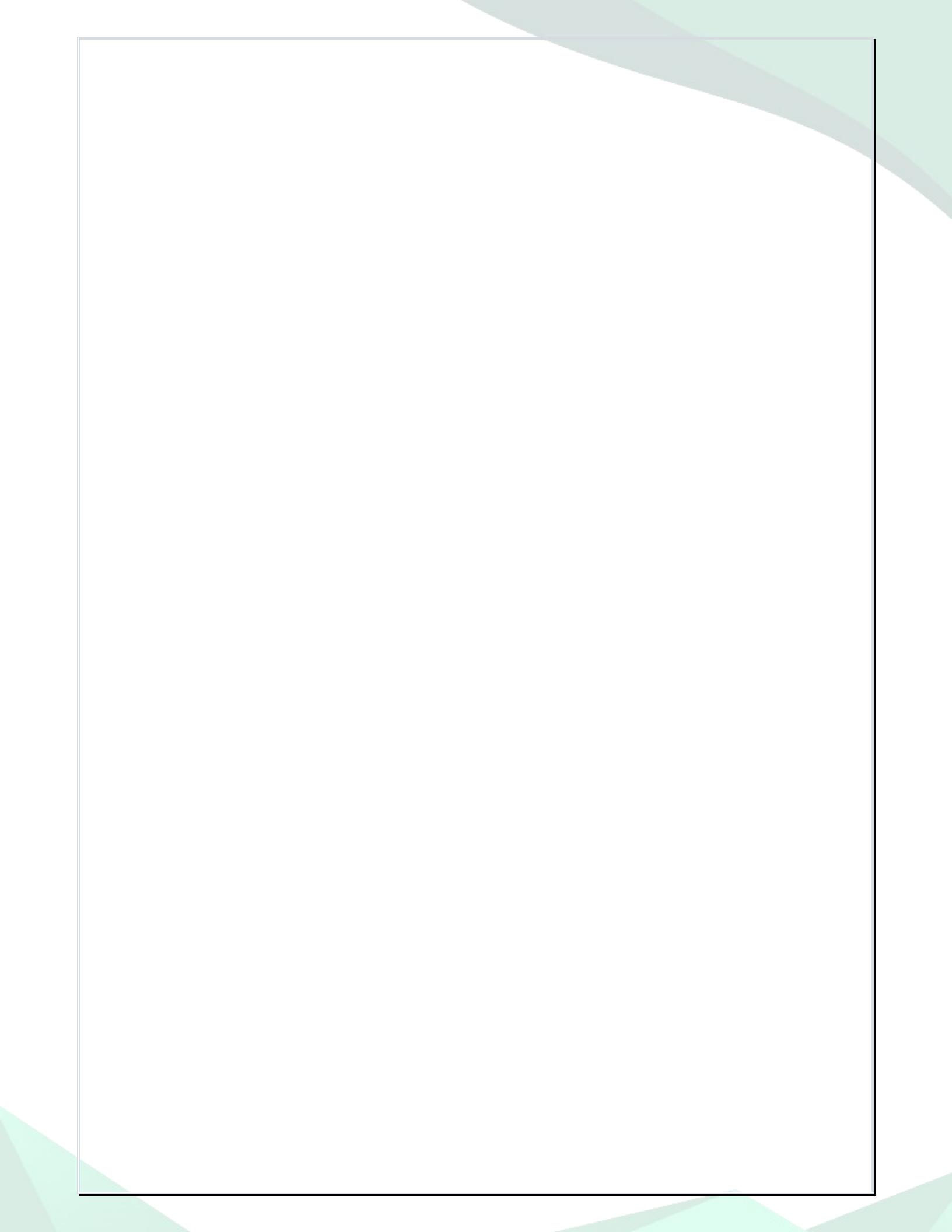
Without your support and cooperation, this edition of SRUJJAN would not have been possible.

– **SRUJJAN Editorial Team**  
Electronics & Telecommunication Engg. Department  
SSGMCE, Shegaon









**“Either you run the day or  
the day runs you.”**



**Digital Department Magazine – Tap to View**

