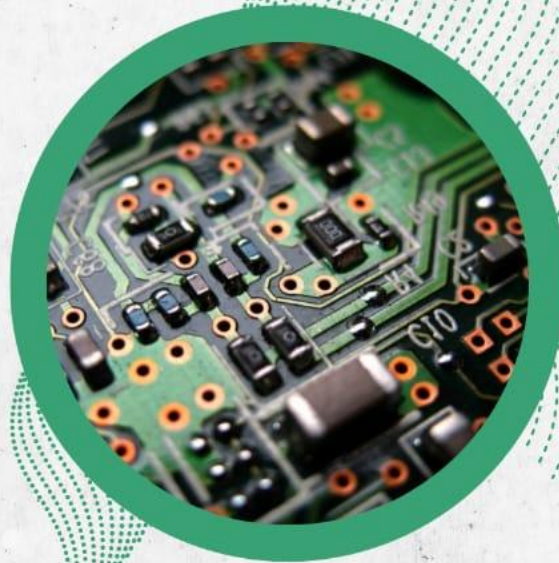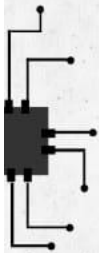**Shri Sant Gajanan Maharaj**
College of Engineering
SHEGAON, MAHARASHTRA, INDIA
444-203

SRUJJAN

ELECTRONICS AND
TELECOMMUNICATION
DEPARTMENT

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, centers 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, analyze 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.

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.

We hope this magazine will inspire its readers and stand as a memorable archive of the wonderful year gone by. Let's continue to learn, grow, and create together.

Happy Reading! 😊

— *Editorial Team,*
SRUJJAN

TEAM SRUJJAN
(2022-23)

POST	NAME
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Asso. Chief Editor	Shravani Dhamode (3U)
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Achievements of the 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 **2nd 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

विभाग

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,
धरतीला हिरवी शाल पांघरा.
नद्यांना दूषित करू नका, मित्रांनो,
पाण्याचे महत्त्व जरा ओळखा.

पक्षांची घरटी उध्वस्त नको,
प्राण्यांना मारण्याची क्रूरता 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 थांबत 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 साऱ्याचे.

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 महत्त्वाची जबाबदारी निभावत आहेत.

नव्या क्षेत्रांची ओळख

पूर्वी पारंपरिक करिअरच्या संकल्पना होत्या—डॉक्टर, इंजिनिअर, वकील. आता तरुण पिढी फ्रीलान्सिंग, डिजिटल मार्केटिंग, यूट्यूबिंग, स्टार्टअप्स यामध्ये उतरत 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, गरजूंना 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 साहित्यही 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 विभाग

कविताएँ

<u>वन की वाणी</u>

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।

क्षणभंगुर

क्षणभंगुर है यह संसार, फिर भी हम दौड़ते हैं,

स्थिरता की तलाश में, अस्थिर लहरों से टकराते हैं।

कल जो था, वो अब नहीं,

आज जो है, वो कल कहाँ?

समय की रेत मुट्ठी से फिसलती जाती है,

हम नाम, काम, आराम के भ्रम में उलझते जाते हैं।

सच तो ये है कि कुछ भी हमारा नहीं,

फिर भी सबकुछ समेटने का भ्रम सवार है कहीं।

क्या हम वाकई जिए हैं? या बस बीते हैं?

क्या हम शांत हुए हैं? या बस चीखते रहे हैं भीतर से?

क्षणों को पकड़ कर जीना सीखो,

वरना उम्र भी बीत जाएगी – और जीवन भी।

लेख

<u>डिजिटल युग में सामाजिक संबंधों की सच्चाई</u>

प्रस्तावना

आज का युग तकनीक और इंटरनेट का है, जहाँ मोबाइल और सोशल मीडिया हमारे जीवन का अभिन्न हिस्सा बन चुके हैं। हम पहले से कहीं अधिक जुड़े हुए हैं, लेकिन क्या सचमुच जुड़ाव उतना ही गहरा है? डिजिटल माध्यमों ने हमारे सामाजिक संबंधों का रूप बदला है—पहचानें बढ़ी हैं पर गहराई घटी है।

आभासी दुनिया की चमक

फेसबुक, इंस्टाग्राम, व्हाट्सऐप और अन्य सोशल मीडिया प्लेटफॉर्म ने हमें हजारों लोगों से जोड़ा है। जन्मदिन की बधाइयाँ, त्यौहार की शुभकामनाएँ, रिश्तों की अपडेट—सब कुछ एक क्लिक में हो जाता है। परंतु ये संबंध कितने वास्तविक हैं? क्या हम वाकई एक-दूसरे के सुख-दुख में भागीदार बन पा रहे हैं?

संबंधों में सतहीपन

डिजिटल बातचीत में अभिव्यक्ति की गहराई कम होती जा रही है। इमोजी, शॉर्ट फॉर्म चैट, या एक लाइन के रिप्लाई से संवाद की जगह सिर्फ औपचारिकता बची है। आमने-सामने बैठकर बात करने की जो भावनात्मक ताकत होती थी, वह अब स्क्रीन के पीछे छिप गई है।

युवा पीढ़ी की सोच

आज की पीढ़ी तेजी से विकसित हो रही है। पढ़ाई, करियर, और निजी जीवन के

दबाव में वो सोशल मीडिया पर भावनात्मक सहारा ढूंढती है। मगर डिजिटल दोस्ती का ये सहारा अक्सर अस्थायी होता है, जिससे अकेलापन और मानसिक तनाव बढ़ सकता है।

सामाजिक संवेदना में कमी

डिजिटल माध्यमों ने सूचनाओं का आदान-प्रदान आसान बना दिया, पर सामाजिक संवेदनशीलता कम होती जा रही है। दुर्घटनाओं या संकट के समय लोग मदद की बजाय वीडियो बनाना पसंद करते हैं। यह एक चिंताजनक बदलाव है।

समाधान की राह

हमें तकनीक के साथ संतुलन बनाना सीखना होगा।

- **डिजिटल डिटॉक्स**: सप्ताह में एक दिन फोन या सोशल मीडिया से दूरी बनाना।

- **प्रत्यक्ष संवाद**: दोस्तों और परिवार से आमने-सामने बातचीत के मौके बढ़ाना।

- **भावनात्मक उपस्थिति**: केवल टेक्स्ट नहीं, दिल से जुड़ने की कोशिश करना।

- **सामाजिक सहभागिता**: स्थानीय कार्यक्रमों, समाजसेवा या सांस्कृतिक गतिविधियों में हिस्सा लेना।

युवा और मानसिक स्वास्थ्य – एक अनदेखा पहलू

भूमिका

आज के युवाओं पर समाज की, परिवार की और खुद की अपेक्षाओं का बहुत अधिक दबाव है। अच्छे अंक, बेहतर करियर, सामाजिक छवि—इन सबका भार कहीं न कहीं मानसिक स्वास्थ्य को प्रभावित करता है।

चिंता और अवसाद का बढ़ता प्रकोप

एनसीआरबी की रिपोर्ट के अनुसार भारत में हर साल हजारों छात्र मानसिक तनाव के कारण आत्महत्या करते हैं। चिंता, अनिद्रा, अवसाद और आत्ममूल्य में गिरावट अब आम समस्याएँ बन चुकी हैं।

कारण

- स्पर्धा का दबाव

- सोशल मीडिया से तुलना

- एकाकीपन और संवाद की कमी

- करियर की अनिश्चितता

- पारिवारिक अपेक्षाएँ

समाज की भूमिका

मानसिक स्वास्थ्य पर चर्चा अभी भी एक वर्जित विषय माना जाता है। "पागल" कह कर उपहास उड़ाना, समस्या को छोटा समझना—ये रवैया स्थिति को और बिगाड़ता है।

समाधान

1. **मनोवैज्ञानिक सहायता को सामान्य बनाना**
   कॉलेजों और स्कूलों में परामर्शदाताओं की नियुक्ति अनिवार्य होनी चाहिए।

2. **खुले संवाद**
   घरों में मानसिक स्वास्थ्य पर खुलकर चर्चा होनी चाहिए।

3. **आत्म-स्वीकृति और आत्म-देखभाल**
   योग, ध्यान, रचनात्मक गतिविधियों द्वारा तनाव घटाया जा सकता है।

4. **डिजिटल सीमाएँ**
   सोशल मीडिया का संतुलित उपयोग जरूरी है।

English

Sections

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.

<u>The Man on the Bench</u>

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

<u>The Silent Revolution of Rural India</u>

Introduction

While the bustling metros and skyscrapers often steal the limelight, a silent revolution is quietly brewing in the heart of rural India. Often overlooked and underrepresented, villages are slowly transforming through education, entrepreneurship, and digital empowerment. This revolution isn't loud—it's determined, deep-rooted, and here to stay.

Digital Awakening

The penetration of smartphones and affordable internet, particularly through schemes like Digital India, has opened doors that were once thought to be unreachable. Students from remote areas now access online learning,

farmers get real-time weather and mandi prices, and local artisans showcase their work on e-commerce platforms. The once-wide gap between rural and urban knowledge is narrowing.

Education as a Catalyst

Government programs and non-profit initiatives have boosted school enrollment in rural India. But beyond numbers, there's a shift in mindset. Parents who once prioritized labor over learning now aspire to see their children as doctors, engineers, or teachers. Educational apps, remote lectures, and community libraries are helping to bridge the infrastructure gap.

Entrepreneurship and Local Industry

Self-help groups (SHGs), government support schemes, and microloans have fostered local entrepreneurship, especially among women. Small-scale industries such as handicrafts, dairy, organic farming, and textile weaving are now powered by innovation and sustainable practices. These aren't just businesses—they are stories of pride, resilience, and self-reliance.

Challenges that Remain

Despite the progress, rural India still faces hurdles. Access to quality healthcare, clean drinking water, and consistent electricity remain issues. Migration to cities for employment continues, draining villages of their youthful potential. There is also a digital divide in terms of digital literacy and infrastructure that needs urgent addressing.

The Way Forward

Empowerment must be inclusive. It is essential that government schemes are implemented efficiently, rural voices are heard in policymaking, and youth are given platforms to lead change. Equipping rural schools with labs, improving roads, and encouraging village-based startups can accelerate this transformation.

The Burden of Expectations on Today's Youth

Introduction

"You must score high marks." "You should get a government job." "You must settle early." These are just a few of the many expectations placed upon the shoulders of Indian youth. In an age of opportunities, the freedom to explore and fail should be a gift—but it is often replaced with fear, pressure, and anxiety.

Cultural and Societal Pressures

In India, family and society play a central role in shaping the aspirations of young individuals. While it's natural to expect the best for children, rigid frameworks often ignore individual interests. A student with a

passion for art may be pushed toward engineering, or someone interested in music may be told, "There's no future in that."

Academic Stress and Career Confusion

The intense competition in board exams, entrance tests, and interviews adds to the mental toll. Even after getting into a reputed college, the pressure to outperform continues. Career choices are often driven by salary potential rather than passion or interest. This leads to burnout, job dissatisfaction, and even depression.

The Role of Social Media

Social media further complicates things. Constant comparison with others' curated lives makes many youth feel inadequate or left behind. Every scroll becomes a reminder of what they "should have" achieved, adding invisible pressure to already burdened minds.

Mental Health Matters

What makes this issue critical is the lack of open

conversations about mental health. Youth are told to "be strong," "ignore feelings," and "move on." As a result, many suffer silently, unaware that it's okay to seek help. Institutions must provide mental health support and normalize emotional well-being discussions.

Empowering, Not Pressuring

Parents, teachers, and society must shift focus from outcomes to efforts. Encouraging creativity, risk-taking, and failure as a learning process will foster a healthier, more fulfilled generation. Career guidance, life skill education, and mentorship programs can ease this transition.

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.

<u>Student Innovations</u>

<u>& Project</u>

Projects

Project Group No.	Name of Student	Name of Project Guide	Project Title

1	Tejas Dnyaneshwar Gatkal	Dr. M. N. Tibdewal	Design implementation of smart water level indicator and valve controller
	Aman Baburao Raut		
	Parth Ravindra Kamle		
	Prathamesh Badrinarayan Shingne		
2	Bhushan Mahesh Nemade	Dr. K.B. Khanchandani	Prototype of warehouse management robot
	Ku. Anushka Ganesh Unhale		
	Ku. Namrata Vijay Kherde		
	Abhay Manoj Tiwari		
3	Ku. Kalyani Ravindra Bhagwat	Mr. V. M. Umale	Smart LPG leakage detection and monitoring alert system
	Ku. Namrata Devidas Damare		
	Bhavesh Rajendra Shah		
	Sanket Rajendra Yende		
4	Ku. Shreya Shrirang Gaikwad	Dr. K.B. Khanchandani	Smart forming using ML.
	Ku. Shraddha Narayan Bhore		
	Atharva Moreshwar Joshi		
	Prem Prakash Hargunani		
5	Ku. Aishwarya Rajesh Dhongdi	Dr. D. D. Nawgaje	Smart multilevel car parking system
	Ku. Amruta Atul Bobade		
	Ku. Ashita Ashokrao Tikhe		
	Ku. Manasi Ravindra More		
6	Dipak Prakash Deshmukh	Dr. R. S. Dhekekar	Class Room management system related to NEP-20
	Dhananjay Vinayakrao Borse		
	Sumedh Manohar Mankar		
	Yashkumar Ramesh Khandare		
7	Anirudha Shyam Deshmukh	Dr. S B. Patil	Design and analysis of multiband micro strip patch antenna
	Atharva Sudhish Patil		
	Chetan Ajrambar Lavhale		
	Rahul Deepak Patil		
8	Ku. Shruti Prashant Jumale	Dr. B. P. Harane	To design online dairy application
	Ku. Disha Sanjay Nagpal		
	Ku. Sejal Gopal Ganesh		
	Ku. Srushti Moreshwar Chohatkar		
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 hydrophonics 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		
16	Naman Jitendra Sharma	Dr. D. P. Tulaskar	Design and analysis of micro strip patch antenna for 5G application
	Tejas Ramsing Chavhan		
	Vaibhav Ambadas Mhasal		
	Yash Mohan Gangane		

Student

Activities

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	oragnized 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	29th 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 maharshtra yoga parishad	Third Prize in Yoga Competition

Second Prize at AAVISHKAR 2023

Event 1:
Title: "Workshop on Secret of Canva"
Date: 10th 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 canva", "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.
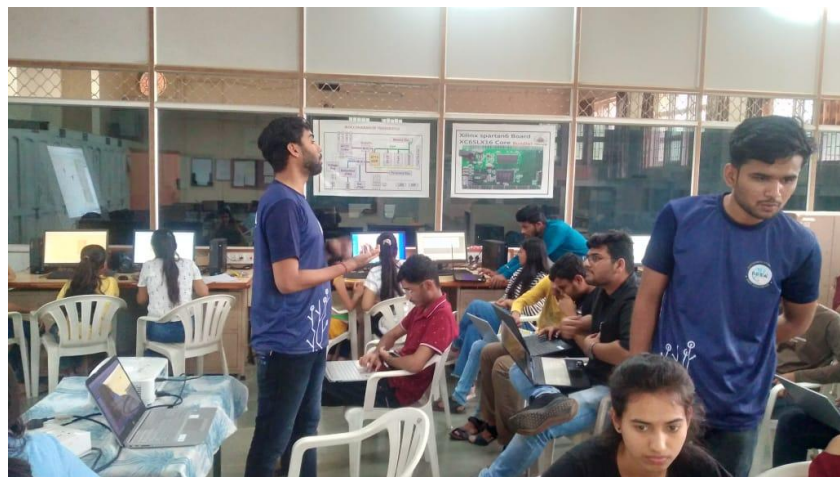

Event 2:
Title : "Hello to Embedded System"
Date: 7th and 8th April 2023
Attendees: 42
Event Description: Miss Smruti Gangane introduced the basics of embedded systems. Mr Prathmesh Gattani took the hands on session on keil and proteus software. Mini project were also made by the attendees at the end of workshop. The workshop was very interactive and informative.

Event 3:
Title: "Battle of Electronics"
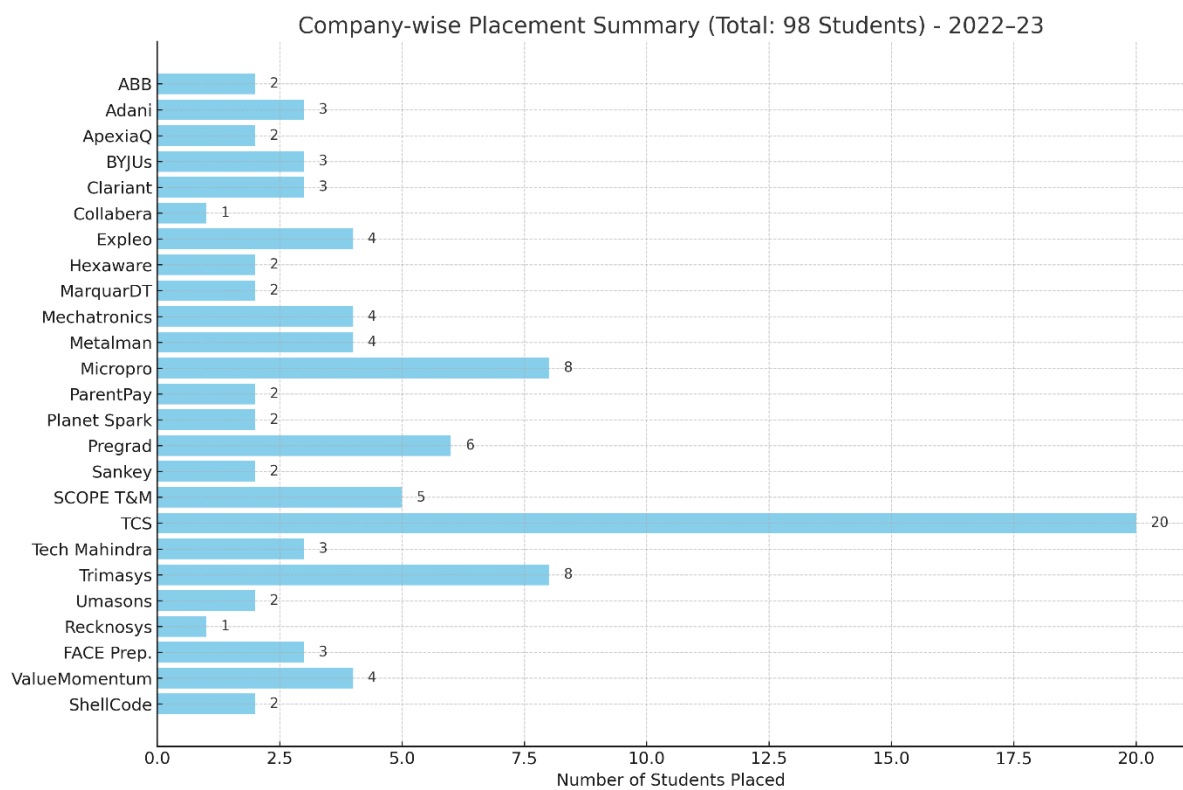**Date:** 7th and 8th April 2023
Attendees: 44

Event Description: The event consisted of three rounds: buzzer round, word wipe and circuit construction. In buzzer round students participated in groups of two and the task was to guess the correct names of images shown. In word wipe the teams had to correct the spellings of jumbled word shown. In round three, teams had to design and run the circuits from the electronic components given.

PLACEMENTS

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 Servies Pvt. Ltd., Hyderabad	04	4.50
25.	ShellCode	02	-
Total Students Placed		98	

Company-wise Placement Summary (Total: 98 Students) - 2022–23

Faculty

Achievements

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
	Advanced Power Electronic Converters for RES and EV Applications	RGM College (Online)	09/01/2023 to 13/01/2023
V.M Umale	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
	CBCS-NEP Executors' Training Program	SSGMCE,Shegaon	17/09/2022 to 17/09/2022
D.L.Bhombe	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

Samples proofs

Electronics & ICT Academy

PDPM IIITDM Jabalpur

Supported by Ministry of Electronics and Information Technology (MeitY), Govt. of India

Certificate of Completion

EICT-IIITDMJ/FDP/169 /ECE/57/2022

This is to certify that Mr. Swapnil Panjabrao Badar from Shri Sant Gajanan Maharaj College Of Engineering, Shegaon has participated in a two weeks (40 hours) online Faculty Development Programme on "5G & B5G Wireless Technologies with MATLAB Practice" organized by the Electronics and ICT Academy at PDPM IIITDM Jabalpur during July 25 – August 05, 2022, under the "Scheme of financial assistance for setting up of Electronics and ICT Academies" of the Ministry of Electronics and Information Technology (MeitY), Government of India. He has successfully completed all the requirements of the programme. The programme is recognized by AICTE/UGC.

Prof. Aparajita Ojha
Chief Investigator, E&ICT Academy
PDPM IIITDM Jabalpur

Dr. Matadeen Bansal
Course Coordinator
PDPM IIITDM Jabalpur

DIRECTORATE OF TECHNICAL EDUCATION

GOVERNMENT OF MAHARASHTRA

CERTIFICATE

This is to certify that Mr./Mrs. **Dr Dhiraj P. Tulaskar**

has participated in State Conference On "Unmanned Aerial Vehicle (UAV) Technology - Applications and Regulations" Organized by Directorate of Technical Education, Maharashtra State, Mumbai hosted at Government Polytechnic, Mumbai on 15th September, 2022.

Prof. S R Kasture
Convenor

Prof. Swati Deshpande
Principal
Government Polytechnic, Mumbai

Programme Code: IITD/SFRF/2023/ EL|29

Indian Institute of Technology Delhi

HAUZ KHAS, NEW DELHI- 110016

Continuing Education Programme

Summer Faculty Research Fellow Programme-2023

This is to certify that

Mr./Ms./Dr. **Swapnil Panjabrao Badar**

from Shri Sant Gajanan Maharaj College of Engineering, Shegaon, Buldana, Maharashtra has participated in the "**Summer Faculty Research Fellow Programme-2023**" under Continuing Education Programme held from **17-May-2023** to **8-Jul-2023**.

Prof. Swades He
Faculty Mentor

Prof. Manav Bhatnagar
Associate Head, CEP

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- https://doi.org/10.1016/j.matpr.2022.08.106	https://www.sciencedirect.com/science/article/abs/pii/S2214785322052622
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- https://doi.org/10.1007/s00542-022-05356-y	https://link.springer.com/article/10.1007/s00542-022-05356-y
3	Mr. Vijay Tripathi, Dr. Manish N.Tibdewal, 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- https://doi.org/10.1007/s42600-022-00252-w	https://link.springer.com/article/10.1007/s42600-022-00252-w

Number of quality publications in conference by faculty

Sr. No.	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-https://doi.org/10.1007/978-981-99-0085-5_25	https://link.springer.com/chapter/10.1007/978-981-99-0085-5_25
2	Mr. Swapnil P. Badar;Dr. Kamalesh Khanchandani	Successive Cancellation Polar Decoder Implementation using Processing Elements	SBN Information: Electronic ISBN:978-1-6654-6658-5 Print on Demand(PoD) ISBN:978-1-6654-6659-2, ISSN Information: Electronic ISSN: 2642-6102, Print on Demand(PoD) ISSN: 2640-821X, 01-03 July 2022, DOI-10.1109/TENSYMP54529.2022.9864529.	https://ieeexplore.ieee.org/document/9864529
3	Mr. Swapnil P. Badar;Dr. Kamalesh Khanchandani	Fast Polar Decoder Implementation using Special Nodes	ISBN Information: Electronic ISBN:979-8-3503-1071-9,ISBN:979-8-3503-1072-6,02 June 2023, DOI-10.1109/PCEMS58491.2023.10136054	https://ieeexplore.ieee.org/document/10136054
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	https://ieeexplore.ieee.org/abstract/document/10151598

5	Dr. M.N.Tibd ewal	Design and Implementation of Smart Water Level Indicator and Valve Controller	DOI- https://ssgmjournal.in/index .php/ssgm/article/view/54	https://ssgmjourna l.in/index.php/ssg m/article/view/54
6	Dr.D.D.N awgaje	Smart Multilevel Car Parking System	NA	NA
7	Dr.D.D.N awgaje	Application of Deep learning algorithm in detection of Diabetic Retinopathy	NA	NA
8	Dr. Kamlesh Kahar	Micro Scale Energy Scavengers for low power applications in Rural Areas	DOI- https://ssgmjournal.in/index .php/ssgm/article/view/41	https://ssgmjournal.in /index.php/ssgm/articl e/view/41
9	Dr. Kamlesh Kahar	Vehicle safety system for blind spot and Hilly areas	DOI- https://ssgmjournal.in/index .php/ssgm/article/view/62	https://ssgmjourna l.in/index.php/ssg m/article/view/62
10	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– https://ssgmjournal.in/i ndex.php/ssgm/article/v iew/53 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.	https://ssgmjourna l.in/index.php/ssg m/article/view/53
11	Ms. Shruti Singhaniy a, Mr. V. M. Umale,	Design and Development of Water Ionizer	IEEE National Students' Conference on Innovation In Rural Development	https://ssgmjourna l.in/index.php/ssg m/article/view/55

| Ms. Shreya Pandey, Ms. Gayatri Kungade, Mr. Abhishek Jaiswal, Mr. Yash Saiwal | | organizedby IEEE Students' Branch INSCIRD–2023, Shri Sant Gajanan Maharaj College of Engineering, Shegaon held on 20th – 21st April 2023 DOI– https://ssgmjournal.in/index.php/ssgm/article/view/55 | |

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 canalduring 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.

<div align="right">

– SRUJJAN Editorial Team
Electronics & Telecommunication Department
SSGMCE, Shegaon

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"Either you run the day or the day runs you."