

SHRI SANT GAJANAN MAHARAJ COLLEGE OF
ENGINEERING SHEGAON-444203



SRUJJAN

THE CREATIVE WAY OF THINKING

**ANNUAL MAGZINE
2021 to 2022**

DEPARTMENT OF ELECTRONICS AND
TELECOMMUNICATION ENGINEERING

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

“Education is not just about gathering knowledge, but about nurturing innovation, creativity, and the ability to adapt in a dynamic world.”

It brings me immense pleasure to present the latest edition of **SRUJJAN**, our department's annual Magazine. Over years (2021-22), the **Electronics & Telecommunication Engineering** department has witnessed significant academic progress, technical innovations, and student achievements.

We have conducted **numerous workshops, industry interactions, and technical training programs** to bridge the gap between theoretical learning and real-world applications. Our students have participated in **national-level competitions, hackathons, and research projects**, showcasing their talents and innovative ideas. Several students have also secured **placements in top companies** and pursued **higher education opportunities in reputed institutions**.

Our **faculty members** continue to contribute to research and technology development, with publications in **renowned journals and conferences**. Their dedication has played a crucial role in shaping the future of our students and elevating the department's reputation.

I extend my heartfelt gratitude to our **management, faculty, students, alumni, and industry partners** for their unwavering support in fostering a culture of excellence. I hope this edition of **SRUJJAN** serves as an inspiration for students to push the boundaries of their knowledge and creativity.

Best wishes to all!

Dr. M. N. Tibdewal
Head Of the Department,
Electronics & Telecommunication.

EDITORIAL MESSAGE

Dear Readers,

It is with great pride and excitement that we present this edition of **SRUJJAN**, the Annual Magazine of the **Electronics & Telecommunication Engineering Department**. Over the past few years, our department has made remarkable strides in **technological advancements, student achievements, research contributions, and industry collaborations**.

This newsletter is a reflection of our collective efforts in fostering **innovation, academic excellence, and a passion for engineering**. It brings together insightful articles, project highlights, faculty and student achievements, creative writing, and placement records from **2021-22**.

We are grateful to our **HOD, faculty members, and students** for their valuable contributions in making this newsletter a reality. Special thanks to our **graphics and design team** for their creativity in making this edition visually appealing.

We hope **SRUJJAN** continues to serve as a **platform to showcase the talent, dedication, and hard work** of our department members. We encourage our readers to actively engage, contribute, and share their feedback for future editions.

"The future belongs to those who believe in the beauty of their dreams." – Eleanor Roosevelt
Happy Reading!

Best Regards,
Bhushan Hazare

TEAM SRUJAN
(2021-22)

POST	NAME
Chief Editor	Bhushan Hazare (3U1)
Asso. Chief Editor	Shweta Bhagat (3U2)
Editor in Marathi	Satwik Mankar (3U1) Adan Akbani (2U1)
Editor in Hindi	Gayatri Kungade (3U2) Om Deshmukh (2U1)
Editor in English	Hardik Motghare (3U2) Rohini dawale (2U2)
Graphics designer	Srushti Chohatkar (3U2) Neha Gore (2U2)
Layout Artist	Dhananjay Borse (3U2)
Editor in Technical	Mrunal Pimpalkar (3U1)

Table Of Contents

Section	Page NO.
Achievements of the Department	7
Marathi Section (Poems, Articles)	10
Hindi Section (Poems, Articles)	17
English Section (Poems, Articles)	23
Technical Section	28
Student Activities	31
Sports	41
Placement Data	45
Faculty Achievements	48
Graphics and Illustrations	53

Achievements of the
Department

OVERVIEW

The **Electronics & Telecommunication Engineering Department** at **Shri Sant Gajanan Maharaj College of Engineering, Shegaon**, is one of the institute's **core departments**, offering **B.E., M.E., and Ph.D. programs**. The department has:

- ✓ **22 Faculty Members** (9 with Ph.D. from IITs, NITs, and reputed universities)
- ✓ **5 Laboratory Assistants & 8 Support Staff**
- ✓ **466 Undergraduate Students & 10 Ph.D. Scholars**
- ✓ **University-recognized research laboratories**

ACADEMIC & RESEARCH ACHIEVEMENTS

✦ Faculty Excellence:

- **9 faculty members** have Ph.D. degrees, while **6 others** are pursuing Ph.D.
- The department received **NBA Accreditation (2019-2025)**.

✦ Student Success:

- Students participated in **GATE, CAT, and other competitive exams**.
- **106 students** placed in **national & international companies**.
- Students secured **1st Prize in 'Avishkar 2022'** and were selected for **state-level project exhibitions**.

Research Contributions:

- Several research papers were published in national & international journals.
- **5 MoUs signed with leading companies** to strengthen industry-academia collaboration.
- Faculty members conducted **lectures and workshops in reputed institutions.**

WORKSHOPS, TRAINING & INDUSTRIAL COLLABORATIONS

Major Activities Conducted in 2021-22:

- ✓ **5 Webinars & 3 Workshops** (Virtual & In-Person) on emerging technologies.
- ✓ **Technical & Industrial Training Programs** for students and faculty.
- ✓ Research proposals submitted to **AICTE & MSME** for project funding.
- ✓ Received **₹93,000 grant** from AICTE's ATAL Academy for Faculty Development Program (FDP).

PLACEMENTS & INDUSTRY LINKAGES

- ✓ **Top Recruiters: TCS, Wipro, Capgemini, Infosys, Virtusa, HDFC Life, BYJU'S, etc.**
- ✓ Students have worked on **innovative & interdisciplinary projects**, contributing to industry research.
- ✓ **96.5% result** in final-year undergraduate programs.

मराठी विभाग

कविता

संघर्षाची ज्योत

चला पेटवू आशेची ज्योत,
अंधाराचा करूया थोत.
वाट अडली तरीही आपण,
यशाचा लावूया दिवा प्रज्वलित!
धरणीला फाटे पडले तरी,
हृदयात शक्ती राहो टिकून.
हरल्याचा स्वीकार करीत,
नवी उमेद करूया जागृत!

निसर्गाची साद

हिरवी झाडे, निळे आकाश,
निसर्गाचा सुंदर प्रकाश.

तूच धरतीचा आधार,
संवर्धन कर तुझा संसार!
पाऊस जिरला, ओसाड झाली,
वनराई आता कोमेजली.
पर्यावरण सांभाळा सारे,
सोन्यासारखी धरणी ठेवावी न्यारी!

स्वप्न उंच भरारी

मी आहे ध्येयवेडा,
सप्तरंगांचे स्वप्न घेऊनी.
उंच उडायचे मला,
नभी झेप घेऊनी.
अपयश आले तरीही,
माघार नाही घ्यायची.
यशाची कमान बांधून,
संसार सजवायचा!

लेख

आधुनिक तंत्रज्ञान आणि शिक्षणातील बदल

प्रस्तावना:

शिक्षण ही एक सतत बदलणारी प्रक्रिया आहे. तंत्रज्ञानाच्या मदतीने शिक्षणाचे स्वरूप आता वेगाने बदलत आहे. कोरोना महामारीच्या काळात शिक्षण क्षेत्रात अमूलाग्र बदल घडले आणि ऑनलाइन शिक्षण ही संकल्पना वेगाने स्वीकारली गेली. पारंपरिक पद्धतीने शिकण्याऐवजी आता तंत्रज्ञानाचा वापर करून विद्यार्थ्यांना घरबसल्या शिकण्याची संधी मिळत आहे.

शिक्षणातील डिजिटल क्रांती:

ऑनलाइन शिक्षणामुळे खालील प्रमुख बदल घडले:

1. व्हर्चुअल क्लासरूम्स – झूम, गूगल मीट, मायक्रोसॉफ्ट टीम्स यांसारख्या व्यासपीठांवरून शिक्षक आणि विद्यार्थी संवाद साधू लागले.
2. ई-लर्निंग प्लॅटफॉर्म – कोर्सेरा, उडेमी, नॅशनल डिजिटल लायब्ररी यांसारख्या प्लॅटफॉर्मनी उच्च दर्जाचे शिक्षण सर्वांना उपलब्ध करून दिले.
3. डिजिटल नोट्स आणि अभ्यासक्रम – पूर्वीचे छापील पुस्तके आणि नोट्स यांच्या जोडीने आता पीडीएफ, विडिओ लेक्चर्स आणि ई-बुक्सचा मोठ्या प्रमाणात वापर सुरू झाला.
4. ऑनलाइन परीक्षा आणि मूल्यांकन – ऑनलाइन चाचण्या, एमसीक्यू आधारित परीक्षा आणि डिजिटल उत्तरपत्रिका यांचा उपयोग शैक्षणिक संस्थांनी मोठ्या प्रमाणात केला.

ऑनलाइन शिक्षणाचे फायदे आणि तोटे:

✓ फायदे:

- वेळेची बचत – विद्यार्थी आणि शिक्षक दोघेही प्रवासाच्या त्रासातून मुक्त झाले.
- सर्वत्र प्रवेशयोग्यता – कोणीही, कुठूनही शिकू शकतो.
- कमी खर्च – छापील साहित्य आणि प्रवास खर्च वाचतो.

✗ तोटे:

- इंटरनेट आणि साधनसामग्रीची गरज – सर्वांना उच्च गतीचे इंटरनेट आणि स्मार्टफोन/लॅपटॉप मिळवणे शक्य नसते.
- डोळ्यांवर ताण आणि आरोग्यावर परिणाम – सतत स्क्रीनसमोर बसल्याने डोळ्यांना त्रास होतो.
- शारीरिक उपस्थिती नसल्यामुळे एकाग्रता कमी होते – प्रत्यक्ष वर्गात शिकण्याचा जो अनुभव मिळतो, तो ऑनलाइन तितका प्रभावी वाटत नाही.

भविष्यातील दिशानिर्देश:

ऑनलाइन शिक्षणामुळे कृत्रिम बुद्धिमत्ता (AI), व्हर्चुअल रिएलिटी (VR), आणि ऑगमेंटेड रिएलिटी (AR) सारख्या अत्याधुनिक तंत्रज्ञानाचा वापर वाढेल. भविष्यातील शिक्षण हायब्रिड स्वरूपाचे असेल, म्हणजेच ऑनलाइन आणि प्रत्यक्ष शिकण्याचा योग्य समन्वय साधला जाईल.

निष्कर्ष:

शिक्षण आणि तंत्रज्ञान यांचे नाते अधिक दृढ होत चालले आहे. आधुनिक शिक्षण प्रणाली ही भविष्यातील पिढीसाठी सुवर्णसंधी घेऊन येणार आहे. विद्यार्थ्यांनी नव्या तंत्रज्ञानाचा उपयोग करून स्वतःला सक्षम करणे गरजेचे आहे.

भारतीय सैन्य – त्याग आणि शौर्याची गाथा

प्रस्तावना:

"सेवा परमो धर्मः" हे ब्रीद घेऊन भारतीय सैन्य देशाच्या संरक्षणासाठी अहोरात्र कार्यरत आहे. गालवान खोऱ्यातील संघर्ष असो किंवा कारगिल युद्ध, भारतीय जवानांचे शौर्य हे संपूर्ण जगाने मान्य केले आहे. आजही भारतीय सैन्य अत्याधुनिक तंत्रज्ञानाने सुसज्ज असून देशाच्या सीमांचे रक्षण करत आहे.

भारतीय सैन्याची ताकद आणि तांत्रिक प्रगती:

भारतीय सैन्य हे जगातील सर्वोत्तम सैन्य दलांपैकी एक मानले जाते. त्याची ताकद खालील क्षेत्रांत मोठ्या प्रमाणात वाढली आहे:

1. संरक्षण यंत्रणा: आधुनिक टँक, फायटर जेट्स, क्षेपणास्त्रे आणि नौदल जहाजे यांचा समावेश करून सैन्य सशक्त बनवले जात आहे.
2. सायबर युद्ध कौशल्य: डिजिटल युगात भारतीय सैन्याने सायबर सिक्युरिटी आणि तांत्रिक संरक्षण याकडे विशेष लक्ष दिले आहे.
3. स्वदेशी तंत्रज्ञान: "मेक इन इंडिया" अंतर्गत तेजस फायटर जेट, अर्जुन रणगाडा, आणि अग्नि क्षेपणास्त्र यांसारखी अत्याधुनिक साधने विकसित केली गेली.

भारतीय सैनिकांचे जीवन आणि त्यांचा त्याग:

भारतीय सैनिक अत्यंत कठीण परिस्थितीत देशसेवा करतात. सियाचिन ग्लेशियर, राजस्थानच्या वाळवंटी प्रदेशात, आणि पूर्वकडील पर्वतीय भागात ते अहोरात्र कार्यरत असतात. त्यांच्या बलिदानामुळे आपण निर्भय जीवन जगू शकतो.

भारतीय सैन्याचे ऐतिहासिक विजय

- ✓ कारगिल युद्ध (1999 : भारताने पाकिस्तानला पराभूत करून आपले भूभाग परत मिळवले.
- ✓ सर्जिकल स्ट्राईक (2016 : भारतीय सैन्याने नियंत्रण रेषेपलीकडे जाऊन दहशतवादी तळ उद्ध्वस्त केले.

✓ बालाकोट एअर स्ट्राईक (2019 : पुलवामा हल्ल्याचा बदला म्हणून भारतीय वायुदलाने पाकिस्तानमध्ये प्रवेश करून दहशतवाद्यांचे तळ नष्ट केले.

भारतीय सैन्यातील संधी – तरुणांसाठी सुवर्णसंधी:

तरुणांसाठी भारतीय सैन्यात भरती होण्याच्या खालील प्रमुख संधी उपलब्ध आहेत:

1. नॅशनल डिफेन्स अकादमी (NDA आणि इंडियन मिलिटरी अकादमी (IMA – अधिकारी पदासाठी प्रवेश.
2. टेक्निकल एंट्री स्कीम (TES – इंजिनीअर्ससाठी संधी.
3. अग्निपथ योजना (Agnipath Scheme – ४ वर्षांसाठी भारतीय सैन्यात सेवा करण्याची नवीन योजना

निष्कर्ष:

भारतीय सैन्य ही फक्त संरक्षण यंत्रणा नाही, तर प्रत्येक भारतीयासाठी अभिमानाची गोष्ट आहे. देशातील तरुणांनी सैन्यात भरती होण्याचा विचार केला पाहिजे. भारतीय सैन्याचा सन्मान ठेवण्यासाठी आणि त्याच्या कार्याचे मूल्य समजण्यासाठी प्रत्येकाने देशभक्ती जोपासली पाहिजे.

◆ निष्कर्ष:

वरील दोन्ही लेख २०२१-२२ च्या संदर्भाने शिक्षणातील बदल आणि सैन्याच्या शौर्यावर प्रकाश टाकतात. हे लेख SRUJJAN मध्ये समाविष्ट करण्यासाठी योग्य आहेत.

द्विती विभाग

कविताएँ

संघर्ष की लौ

चलो जलाएं हौसले,
आंधियों में दीप बन,
हार को हम हराएंगे,
मंज़िलों के पास चल!
रुक गई जो राह तेरी,
हिम्मतों से मोड़ दे,
धूप कितनी तेज़ हो,
छांव खुद ही जोड़ दे।
गिरते-गिरते थक गए?
अब संभलना सीख ले,
एक चिंगारी है तुझमें,
आग बनकर जी उठे!

प्रकृति की पुकार

हरी-भरी ये धरती प्यारी,
नीला आकाश, नदियाँ सारी।
पेड़ों की ठंडी छाँव बचाओ,
नदियों को फिर से स्वच्छ बनाओ।
कट रहे जंगल, सूख रही नदियाँ,
क्यों इंसानों ने की ये गलतियाँ?
प्रकृति का सम्मान जरूरी है,
सुनो, ये हम सबकी ज़िम्मेदारी है!

सपनों की उड़ान

रखो इरादे आसमानी,
मंज़िल होगी फिर आसानी।
जोश से भर दो परवाज़,
रखो उम्मीदों की आवाज़।
गिरोगे तो उठना सीखो,
हर चुनौती से लड़ना सीखो।
सपने वो ही सच होंगे,
जो पूरे करने की जिद होगी

लेख

ऑनलाइन शिक्षा: एक नई क्रांति:

प्रस्तावना:

शिक्षा किसी भी देश की रीढ़ होती है। कोरोना महामारी के दौरान जब विद्यालय और विश्वविद्यालय बंद हो गए, तब ऑनलाइन शिक्षा ने एक नई क्रांति ला दी। आज डिजिटल शिक्षा ने पढ़ाई के तरीके को पूरी तरह से बदल दिया है।

ऑनलाइन शिक्षा के प्रमुख बदलाव:

- 1) डिजिटल क्लासरूम – ज़ूम, गूगल मीट जैसी प्लेटफॉर्मों ने पढ़ाई को आसान बना दिया।
- 2) ई-लर्निंग प्लेटफॉर्म – कोर्सेरा, उडेमी और BYJU's जैसे ऐप्स से घर बैठे पढ़ाई संभव हुई।
- 3) ऑनलाइन परीक्षा प्रणाली – अब परीक्षाएँ भी डिजिटल हो गईं, जिससे मूल्यांकन आसान हुआ।

ऑनलाइन शिक्षा के फायदे और नुकसान:

✓ फायदे:

- कहीं भी, कभी भी पढ़ने की सुविधा।
- समय और पैसे की बचत।
- डिजिटल संसाधनों का बेहतर उपयोग।

✗ नुकसान:

- इंटरनेट की अनिवार्यता।
- आँखों पर तनाव और शारीरिक गतिविधियों में कमी।
- शिक्षक और विद्यार्थी के बीच व्यक्तिगत संवाद की कमी।

भविष्य की दिशा:

भविष्य में ऑगमेंटेड रियलिटी (AR) और वर्चुअल रियलिटी (VR) जैसी तकनीकें शिक्षा में क्रांतिकारी परिवर्तन लाएँगी। ऑनलाइन और ऑफलाइन पढ़ाई का मिश्रण हाइब्रिड लर्निंग के रूप में उभरेगा।

निष्कर्ष:

शिक्षा की यह डिजिटल क्रांति छात्रों के लिए वरदान साबित हुई है। यदि इसका सही उपयोग किया जाए तो यह हमारे भविष्य को और भी उज्ज्वल बना सकती है।

भारतीय सेना: शौर्य और बलिदान की मिसाल

प्रस्तावना:

"सेवा परमो धर्म:" के सिद्धांत पर चलने वाली भारतीय सेना विश्व की सबसे बहादुर सेनाओं में से एक मानी जाती है। भारत की सीमाओं की रक्षा करने वाले ये सैनिक न सिर्फ हथियारों से बल्कि अपने हौसले और समर्पण से भी दुश्मनों को परास्त करते हैं।

भारतीय सेना की ताकत:

- 1. आधुनिक युद्ध प्रणाली: तेजस फाइटर जेट, अर्जुन टैंक, ब्रह्मोस मिसाइल से लैस।
- 2. साइबर सुरक्षा: डिजिटल युग में सेना ने अपनी साइबर सुरक्षा को मजबूत किया।
- 3. स्वदेशी हथियार: आत्मनिर्भर भारत अभियान के तहत आधुनिक हथियार बनाए जा रहे हैं।

भारतीय सेना के ऐतिहासिक युद्ध और अभियानों:

- ✓ कारगिल विजय (1999) : पाकिस्तान को परास्त कर भारतीय सेना ने कारगिल की चोटियों पर लहराया।
- ✓ सर्जिकल स्ट्राइक (2016) : आतंकवादियों के ठिकानों को खत्म कर एक नया इतिहास रचा।
- ✓ बालाकोट एयर स्ट्राइक (2019) : पुलवामा हमले का बदला लेकर आतंकवाद को करारा जवाब दिया।

युवाओं के लिए भारतीय सेना में अवसर:

- 👉 NDA (नेशनल डिफेंस एकेडमी) : सेना में अधिकारी बनने का प्रमुख रास्ता।
- 👉 अग्निपथ योजना (Agnipath Scheme) : 4 साल की सेवा के लिए नई भर्ती प्रक्रिया।
- 👉 CDS परीक्षा: ग्रेजुएट युवाओं के लिए सेना में शामिल होने का सुनहरा अवसर।

English

Sections

Poems

The Fire of Struggle

Let's ignite the fire within,
A beacon bright against the wind.
We shall rise, we shall fight,
Till dreams take their destined flight.
If the road halts, change the way,
Let courage guide, come what may.
No sun too fierce, no storm too wild,
Hope will stand, fierce and styled.
Falling once is not defeat,
Rise again, let strength repeat.
A spark within, a raging tide,
Turn the flame into your guide.

Nature's Cry

The rivers weep, the trees stand bare,
The Earth now gasps for cleaner air.
The mountains once so proud and high,
Now echo with a silent sigh.
The ocean waves once danced so free,
Now choke in plastic, lost at sea.
The winds that whispered through the trees,
Now murmur warnings on the breeze.
The time has come, let's make things right,
Restore the Earth, bring back the light.
For nature's gift is ours to keep,
Not one to waste, nor let it weep.

Wings of Dreams

I dream of skies so vast, so free,
Where nothing stops the flight in me.
Beyond the hills, beyond the stars,
A journey endless, with no bars.
Though storms may rage and shadows grow,
Within my heart, a fire will glow.
For dreams are wings that dare to fly,
And reach beyond the earthly sky.
So rise again, embrace the fight,
With fearless hope, chase the light.
For every step, though rough it seems,
Shall lead the way to golden dreams.

Articles

The Digital Revolution in Education

Introduction:

Education has always been the foundation of progress, but the pandemic years (2020-22) brought a major shift in how we learn. With schools and colleges shutting down, online education became the new norm. While it came with challenges, it also transformed learning forever.

The Rise of Online Learning:

- ✓ Virtual Classrooms: Platforms like Zoom, Google Meet, and Microsoft Teams replaced traditional classrooms.
- ✓ E-Learning Platforms: Websites like Coursera, Udemy, and Byju's provided students with global access to knowledge.
- ✓ Online Assessments: Digital exams and AI-based evaluation systems became essential tools.

Pros and Cons of Online Learning:

- ✓ Advantages:
 - Flexibility and learning from anywhere.
 - Cost-effective and time-saving.
 - Digital resources like PDFs, videos, and online libraries.
- ✗ Challenges:
 - Internet dependency and digital divide.
 - Lack of physical interaction and classroom engagement.
 - Increased screen time leading to health issues.

The Future of Education:

The future of learning lies in a hybrid system – a combination of online and offline learning. With AI-powered tutors, virtual reality (VR) classrooms, and immersive experiences, education is set to become more interactive and engaging.

Conclusion:

The digital revolution has reshaped education. If used wisely, technology can make learning more effective and accessible to everyone. The challenge now is to balance technology with traditional teaching methods for a brighter future.

The Bravery of the Indian Army

Introduction:

The Indian Army is not just a defense force; it is a symbol of bravery, discipline, and selfless service. Every soldier wears the uniform with pride, knowing that their duty is to protect the nation at any cost. From snowy peaks to scorching deserts, they stand guard, ensuring that we sleep in peace.

Strength and Modernization of the Indian Army:

The Indian Army has continuously upgraded its weapons, strategies, and technology. Some key developments include:

- ✓ Advanced Defense Systems: Indigenous fighter jets (Tejas), missiles (Agni, BrahMos), and tanks (Arjun).
- ✓ Cybersecurity and Warfare: A strong digital security system to counter cyber threats.
- ✓ Border Security: Strengthened surveillance and rapid response units to protect borders.

Historic Wars and Missions:

- ✂ Kargil War (1999): India reclaimed its territory from enemy forces, proving its military strength.
- ✂ Surgical Strikes (2016): Indian forces destroyed terrorist camps across the border.
- ✂ Balakot Airstrike (2019): A strategic attack to eliminate terrorism threats.

Opportunities for Youth in the Indian Army:

- 👉 National Defence Academy (NDA): A prestigious path to becoming an army officer.
- 👉 Agnipath Scheme: A new initiative allowing young aspirants to serve for four years.
- 👉 Technical Entry Scheme (TES): A gateway for engineers to join the armed forces.

Conclusion:

The Indian Army is a force that symbolizes honor, courage, and sacrifice. It is not just about war; it is about protecting the integrity and sovereignty of the nation. Every citizen must respect and support the soldiers who dedicate their lives for us.

Technical

Articles

Projects

Sr. No.	Name of Students	Name of Project Guide	Name of Project
1.	Vedant Khandokar SIDDHESH R KACHKURE Ashutosh Bheonde Vijay Saiwal	Dr. R. S. Dhekekar	Electronics for Farmer's Assistant.
2.	Vishnu Mathariya Abhijeet Jawanjalkar Trupti Gawande Srushti Throat	Prof. S. P. Badar	Current-Mode Current Controlled Current Differencing Transconductance Amplifier (CCCDTA) Design for Analog Signal Processing Applications.
3.	Rushikesh M. Yelane Mufees A. Shaikh Sanket S. Shingade Zubair Khan	Prof. V. S. Ingole	Face Reorganization based locker system
4.	Gauri Prakash Jadhav Sayali Vijay Khedkar Pranali K Gondchawar Vishakha Darshanala	Prof. V. S. Ingole	Students performance evaluation android app
5.	Atharva gulhane Aditya prakash mankar Suraj awachar Pranit R. Bhojekar	Prof. S. G. Nemane	Voice control based home appliances system using aurdino
6.	Sameer Zopate Sakshi Varma Vardha Deshmukh Sangivani Gothe	Prof. K. M. Thanvi	Door security system

7.	Revati Rathi Pallavi Khairkar Rashmita Mahore Vaishnavi Lahare	Prof. L. SAMAL	Floor Cleaning Robot for domestic applications
8.	Avantika Bhujade Disha Daga Jagruti Bisen Mansi Baraliya	Dr. S.B. Patil	Lung cancer detection using machine learning approach
9.	Himal Wankhade Kumar Ashish Anmol Soni Aditya Kathane	Dr. M.N.Tibdewal	Pneumonia Detection Techniques through X-ray Imaging
10.	Ku.Mansi Kulkarni Ku. Rajeshwari Gondchawar Ku. Shraddha Awakale	Dr. K.B.Khanchandani	IoT based smart monitoring in distribution system

Student Activities

IEEE

ABOUT US

Established on 15th August 2001, and from establishment with more than 1000 members the student chapter of IEEE, SSGMCE has come a long way. Our mission is to foster technological innovation and excellence for the benefit of humanity.

EVENT'S



Event Title: RF Circuits and Antennas.

Date: 01 February 2021 to 12 February 2021

Organizing committee: Students Activities Committee, IEEE Bombay Section

Workshop Facilitators: IEEE team and, SSGMCE.

Number of Participants: 22 Student



Event Title:Chasing Calsi

Date: 09 January 2022

Organizing committee: Students Activities Committee, IEEE Bombay Section

Workshop Facilitators: IEEE team and, SSGMCE.

Number of Participants: 180 Student



Event Title:Introduction to Microcontroller and Interfacing with Sensors

Date: 26 March 2022

Organizing committee: Students Activities Committee, IEEE Bombay Section

Workshop Facilitators: IEEE team and, SSGMCE.

Number of Participants: 29 Students



Event Title: Robo vision 2022

Date: 12 March 2022 and 13 March 2022

Organizing committee: Students Activities Committee, IEEE Bombay Section

Workshop Facilitators: IEEE team and, SSGMCE.

Number of Participants: 48 Student



Title: Webinar on Job Avenues in Electronics and Telecommunication Engineering

Date: 8 January 2022

Total Students: 95 students

Resource Person: Pramod Chopade, General Manager and Regional Lead- South, Reliance Jio, Mumbai

Activity Outcome: After Completion of this activity students will be able to learn about job opportunities in Electronics sector and required Skill set.



Figure 4.5: Mr. Bhushan Hazare and Mr. Sumit Bhute participated in University level competition Avishkar 2022 and awarded as First prize

ESSA



Title: First Year orientation

Date: 30 December 2021

Total Students: 95 Individual

Conducting Committee: ESSA

Activity Outcome: After Completion of this activity students will be motivated to participate in events and competitions



Title: Event “Troll by Tronics”

Date: 25-26 March 2022

Time: 11 am to 5 pm

Total Students: 19 Individual

Conducting Committee: ESSA

Activity Outcome: After Completion of this activity students will be motivated to participate in events and competitions



Title: Webinar On “Job Avenues in EXTC”

Date: 8th January 2022

Total Students: 95 Individual

Conducting Committee: ESSA

Activity Outcome: Participants gained insights into various job opportunities in the EXTC field, industry trends, and essential skills required for career.



Title: Workshop on “Chasing Calsi”

Date: 9th January 2022

Total Students: 200 Individual

Conducting Committee: ESSA

Activity Outcome: Participants enhanced their problem-solving skills and understanding of calculator-based computations, improving efficiency in technical and competitive scenarios.



Title: Workshop on Basic Electronics “Electro- Metro”

Date: 11th, 12th and 13th March 2022

Total Students: 171 Individual

Conducting Committee: ESSA

Activity Outcome: Participants gained fundamental knowledge of electronic components, circuit design, and practical troubleshooting skills, enhancing their hands-on experience in electronics.



Title: Webinar on placement awareness

Date: 2 October 2021

Time: 1 pm to 3 pm

Venue: Online Platform : MS Teams

Total Students: 120 students

Resource Person: Mr. Mohit Vyas, Mr. Shreyas Pole, Mr. Manish Tinkhede and Ms. Harshada Babar

Activity Outcome : After Completion of this activity students will be able to learn resume writing and differentiate between types of interview process.

SPORTS

ABOUT US

The Sports Council oversees all sports activities at the college, with staff members assigned as in-charges for different sports. On National Festivals and Swami Vivekananda's Jayanti (12th January), staff participate in sports events. Daily training sessions are held to keep staff fit, and they are encouraged to engage in regular games and use the sports facilities as needed.

Name of the Games	Name of the Award/ Medal	University/State/National/ International	Name of the student
Basket Ball	University Colour Coat	SGBAU Inter Collegiate Tournament	Mr. Manan Goel

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.	Viplav Khode Chinmay Deshkar Pranjali Amalkar Pranoti Gaigol	15 th Dec 2021	Hackathon	Adani Electricity, Mumbai	Improve problem-solving, and real-time project development skills.
2	Anirudhha Wankhede Vivek Joge	15 th Dec 2021	Hackathon	Adani Electricity, Mumbai	Improve problem-solving, and real-time project development skills.

	Shewtatai Bhagat Pallavi Nawghare				
3	Gauri Jalamkar	20 May 2022	Inter collegiate Tournament	SGBAU ,Amravati	Learned discipline, endurance, and strategic thinking in sports.

(B)Prizes/awards received in various events

Prizes/awards received by Students

Sr.No	Name of Student	Date	Event	Conducted by	Event Outcome
1	Viplav Khode Chinmay Deshkar Pranjali Amalkar Pranoti Gaigol	15 th Dec 2021	Hackathon	Adani Electricity, Mumbai	Own the first runner-up prize of Rs.100000/
2	Anirudhha Wankhede Vivek Joge Shewtatai Bhagat Pallavi Nawghare	15 th Dec 2021	Hackathon	Adani Electricity, Mumbai	Own Second prize of Rs.50000/
3	Gauri Jalamkar	20 May 2022	Inter collegiate Tournament	SGBAU ,Amravati	Runner Chess(W)
4	Manan Goel	23 MAY 2022	Inter University Tournament	JIWAJI UNIVERSITY GWALIOR	Colour in Basket Ball (M)

PHOTOS



Hearty Congratulations...!

Bhushan Hajare

Sumit Bhute

(Final Year ENTIC)

SSGMCE Wishes you a Great Career Ahead

- Competed in SGBAU's AAVISHKAR 2022
- Won First Prize in UG Category University level

Figure 1: First Prize in AAVISHKAR 2022



SHRI SANT GAJANAN MAHARAJ COLLEGE OF ENGINEERING, SHEGAON- 444203 Dist. Buldana (M.S.)



Hearty Congratulations

For Your **Outstanding Achievement** in
Hackathon organized by **Adani Electricity**



Prize of Rs. 1,00,000/-
First runner-up team members:

1. Viplav Khode
2. Chinmay Deshkar
3. Pranjali Amalkar
4. Pranoti Gaigol



Prize of Rs. 50,000/-
Second runner-up team members:

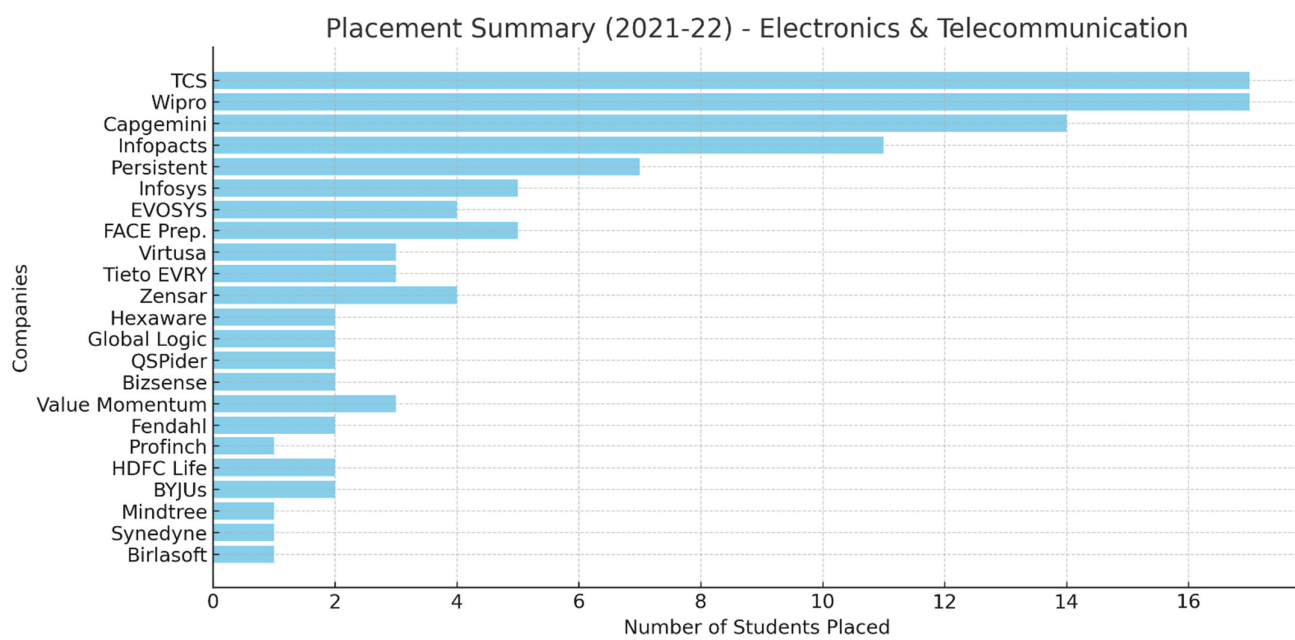
1. Aniruddha Wankhade
2. Vivek Joge
3. Shwetatal Bhagat
4. Pallavi Nawghare

Our Blog blogssgmce.in

Figure 2: First prize at Hackathon

PLACEMENT

Sr. No.	Name of Company	No. of Students Placed	Salary per annum (In LPA)
01	TCS Ltd., Pune	17	3.36
02	Wipro Limited, Pune	17	3.5
03	Capgemini Technology Services India Ltd., Mumbai	14	3.62
04	Infopacts Technologies Pvt. Ltd., Mumbai	11	3.62
05	Persistent System Limited, Nagpur	07	4.71
06	Infosys	05	3.6
07	EVOSYS, Pune	04	3.6
08	FACE Prep., Coimbatore	05	3.06
09	Virtusa, Pune	03	6.5
10	Tieto EVRY, Pune	03	4.5
11	Zensar Technology, Pune	04	4.4
12	Hexaware Technologies, Pune	02	3.5
13	Global Logic, Nagpur	02	5.5
14	QSPider	02	3.6
15	Bizsense Solutions Pvt. Ltd., Nagpur	02	4.8
16	Value Momentum Software Servies Pvt. Ltd., Hyderabad	03	4.0
17	Fendahl Technology, Nagpur	02	6.0
18	Profinch, (WFH)	01	1.89
19	HDFC Life	02	8.0
20	HDFC Life Insurance	01	6.5
21	Bigvibrant, Mumbai	01	7.0
22	BYJU's, Bangalore	02	6.0
23	Mindtree	01	3.6
24	Syneddyne Systems Pvt. Ltd., Bangalore	01	3.71
25	Birlasoft	01	4.0
Total Students Placed		113	



Faculty Achievements

Technical Papers Published

Sr. No .	Name of Authors	Paper Title	Publication Details with ISSN / ISBN / Vol. / Issue / DOI / Year	Indexing (SCI/Web of Science/Scopus/ UGC CARE/Google Scholar/Other)	Paper Link
I	Dr. M. N. Tibdewal	“Multi-Feature Extraction, Analysis and Classification for Control and Meditators’ Electroencephalogram”	Volume 16, ISSUE 8 ISSN / eISSN: 1863-1703 / 1863-1711	SCI Indexed Journal.	https://link.springer.com/article/10.1007/s11760-022-02191-6
2	Dr M. N. Tibdewal	“Deep Learning Models for Classification of Cotton Crop Disease Detection”	ISSN No: 0932-4747,2022	Google Scholar, UGC CARE	https://drive.google.com/file/d/1u7dCR_y68lGqM_0g8ReJ1p7vLBywihWZ/view?pli=1
3	Dr. M. N. Tibdewal	Pneumonia Analysis, Detection, and Classification through Various Classifiers”	VOLUME - 11, ISSUE - 05, MAY - 2022 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra	Other	https://www.worldwidejournals.com/global-journal-for-research-analysis-GJRA/fileview/pneumonia-analysis-detection-and-classification-through-various-classifiers_May_2022_6532336113_0908889.pdf
4	Dr. D. D. Nawgaje	A Methodology for evolution of diabetic retinopathy from digital fundus Image	Volume 3, Issue 7 July 2021, pp: 3348-3355 www.ijaem.net ISSN: 2395-5252	Other	https://ijaem.net/issue-dcp/A%20Methodology%20for%20evaluation%20of%20Diabetic%20Retinopathy%20from%20Digital%20Fundus%20Images.pdf

5	Dr. K. B. Khanchandani	"Smart Wheelchair with safety, security and health monitoring system"	ISSN No: 0932-4747	Google Scholar, UGC CARE	https://drive.google.com/file/d/1xikKvR3N2J5TJkd6APO_qYw--cHH_QPL/view
6	Dr. K. B. Khanchandani	"Smart IOT Energy Meter with Theft Protection"	ISSN No: 0932-4747	Google Scholar, UGC CARE	https://drive.google.com/file/d/1fDHendbfuXvEkqgrm-PTbFP_13dDrqfe/view
7	Mr.V. M. Umale	"Small Size Digital Oscilloscope Using ARM Processor"	ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429 Volume 9 Issue VII July 2021- A	Other	https://www.ijraset.com/files/serve.php?FID=36151
8	Mr.V. M. Umale	"IoT Based Remote Health Monitoring System with Electrocardiograph"	ISSN (Online) 2581-9429, Volume 2, Issue 1, June 2022	Other	https://ijarsct.co.in/Paper4620.pdf
9	Dr. D. P. Tulaskar, Mr. Shon Nemane, Mr. P. D. Kale	"Design and development of warehouse management system for prevention from hazards"	Volume 10, Issue 4, eISSN:2320-2084, pISSN:2321-2950	Other	https://iraj.in/journal/IJEEDC/paper_detail.php?paper_id=18554&name=Design_and_Development_of_Warehouse_Management_System_for_Prevention_from_Hazards
10	Mr.V. S. Ingole	"Student Performance Evaluation System WebApplication"	ISSN (Online) 2581-9429, Volume 2, Issue 6, May 2022	Other	https://ijarsct.co.in/Paper4269.pdf
11	Mrs. K. S. Vyas	"IOT based home automation and security using ESP 32"	ISSN: 1548-7741, Volume 12 Issue 5 - 2022	other	https://drive.google.com/file/d/1OE4MkEbnfXigfxGHHG8bM15pWQrZD1-I/view
12	Mrs. Komal S. Vyas	"Door Security System for Home Monitoring based on Aurdino UNO",	ISSN: 1548-7741 Volume 12 Issue 5 - 2022	Other	https://drive.google.com/file/d/1Zk1QgdqmZemSsWVqaNq_dUMIvygSDdyh/view
13	Mr. K. T. Kahar	The IoT Based Exercise Cycle	ISSN (Online) 2581-9429,	Google Scholar	https://ijarsct.co.in/Paper3668.pdf

Number of quality publications in conference by faculty (2021-2022)

Sr. No.	Name of Authors	Paper Title	Conference details	Indexing (SCI/Web of Science/Scopus/UGC CARE/Google Scholar/Other)	Paper Link
1	Dr. M.N. Tibdewal	Application of Modified Restricted Boltzmann Machine (mRBM) for denoising of motion-Artifacted MRI scans	<div>ISBN Information:</div> <div>Electronic ISBN: 978-1-6654-6741-4</div> <div>ISBN: 978-1-6654-6742-1</div> <div>Electronic ISSN: 2157-0485</div> <div>ISSN: 2157-0477</div> <div>15 June 2022,</div>	IEEE, Scopus	https://ieeexplore.ieee.org/document/9791510
2	Mr. Swapnil P. Badar; Dr. Kamalesh Khanchan dani	Fast Polar Decoder Implementation using Special Nodes	<div>ISBN Information:</div> <div>Electronic ISBN: 979-8-3503-1071-9</div> <div>ISBN: 979-8-3503-1072-6</div> <div>02 June 2023, DOI-10.1109/PCEMS58491.2023.10136054</div>	Scopus	https://ieeexplore.ieee.org/document/10136054

Number of patent/Copyright by faculty (2021-2022)

Sr. No.	Name of Inventors	Application No. / Publication No.	Title of the Invention	Status
				Published / Granted
1	Dr.M.N.Tibdewal, Mr. Vijay Tripathi, Ravi Mishra (Copyright)	Diary No:- L-107828/2021	Denoising of motion artifacts induced MRI scans using deep learning techniques:modified restricted Boltzmann machine (MRBM) and conditional generative adversarial network(CGAN)	NA
2	Dr.Santosh.B.Patil, Mr.Yashwant Sudhakar Ingle (Patent)	2.02121E+11	Mobile communication prank calls avoidance by prefixes and number formats	Published on 27/2021

Graphics

&

Illustrations

Cover Page Design: Represents the theme of innovation, technology, and creativity in the department.

- **Section Dividers:** Custom graphics for each section to maintain visual consistency.
- **Event Photographs:** Capturing major department activities, workshops, and student achievements.
- **Infographics:** Visual representation of placement statistics, research publications, and student projects.
- **Student Artwork Contributions:** Selected drawings, digital art, and creative illustrations by students.

Acknowledgment

We extend our heartfelt gratitude to the following individuals and teams for their contributions to **SRUJJAN (2021-22)**:

- **Department Head & Faculty Members** – For their constant support, guidance, and encouragement.
- **Editorial Team** – For compiling and refining content to ensure a high-quality publication.
- **Graphics & Design Team** – For their creative efforts in enhancing the visual appeal of this edition.
- **Students & Alumni** – For their valuable contributions in the form of articles, achievements, and creative pieces.
- **Placement & Training Cell** – For providing placement data and insights into student career progress.
- **Management & Administration** – For their unwavering support in fostering academic and extracurricular excellence.

A special thanks to all our **readers** who continue to support and engage with **SRUJJAN**. Your enthusiasm and participation keep this initiative alive!

// संतवाणी//


ज्ञान हेचि दीप उजळावा,
अंधाराच्या गुहेत।
विवेकाच्या प्रकाशाने,
सोडवे दुःख गती॥१॥

शिकावे सद्गुण ध्यावे,
करावे सत्य विचार।
वृत्ती ठेवावी निर्मळ,
सत्कर्म घडावी सार॥२॥

नाही रे संपत्ती मोठी,
नाही सत्ता मोठी।
ज्ञान हेचि धन मोठे,
तेचि देई मुक्ती॥३॥

तुका म्हणे, शिकुनी ध्या,
ज्ञानाचे करा सेवन।
जगाचे कल्याण करुनी,
घडवा मंगल जीवन॥४॥

-संत तुकाराम महाराज



"If four things are followed
having a great aim,
acquiring knowledge,
hard work, perseverance
then anything
can be achieved."

"If you want to
shine like a sun,
first burn like a sun."

~Dr APJ Abdul Kalam

*"Scan to read the
magazine online!"*

