Bharatiya Vidya Bhavan's
Sardar Patel College of Engineering

DISHA'23

Resuscitate
Saving them to Save Ourselves

42nd Edition

Wildlife Conservation

We live in a world where the lion isn't the king anymore. It's man. Human beings have evolved through the ages , improving with every passing second to curate the perfect plan that utilises the maximum amount of resources around them. However, with great power comes great responsibility. While we've thrived to run as fast as we can in this race, a lot of creatures have fallen behind.

One of the things that sets us apart from other animals is our ability to feel, empathise with, and understand the consequences of our actions. Extinction due to poaching, hunting, deforestation, and smuggling of flora and fauna is a serious issue that hampers the idea of a utopian land everybody keeps dreaming of. We won't reach the top by climbing on heaps of carcasses. Especially when we have the ability to see the unseen pain in the cages, hear the unheard cries of the slaughterhouse, and feel the unfelt fear the other possesses. We don't own this planet. It's not ours to squander; we are merely the custodians. It was given to us to safeguard and pass on to the generations to come. If this is not done, there will come a day when our children will question the older people who are silent about what they were doing when their inheritance was being squandered. History will demand accountability, and we might have nothing to say.

This magazine aims to address the same because the solution to every problem starts with talking about it first. It is expected to educate the readers about the happenings of the world in the hope of uniting them to put their best foot forward and nullify the damage done for a better tomorrow.

This page by:
Digvijay Londhe &
Arya Warty

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Meghna Nilange

Bharatiya Vidya Bhavan's
Sardar Patel College of Engineering

DISHA'23

Presents

"Resuscitate"

Live Wild | Vanishing Futures | Disappearing Acts

Photo by:
Digvijay Londhe

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Shri Sardar Vallabhbhai Patel   **Kulpati Shri Dr. K.M.Munshi**

Vision

Sardar Patel College of Engineering (SPCE) aspires to be an institution of national repute that will create professionals with competence and motivate research for the progress of the nation.

Mission

- To impart quality education through time relevant curriculum in academic programs
- To enhance career opportunities for students through industry institute interaction and value added courses
- To promote excellence by encouraging innovative ideas and lateral thinking
- To inculcate sense of discipline and responsibility towards society

Core Values

- Quality Education
- Diversity
- Integrity
- Accountability
- Responsibility
- Equity
- Excellence

FOREWORD

'Nature does not belong to us; we belong to it'

It's been a wonderful journey, and with immense joy and pride, We are proud to present to you the newest edition of the SPCE Annual College Magazine- DISHA 2023. Giving you a peek into the world of SPCE, DISHA showcases our diligent student committees, vibrant fests and our exceptionally talented faculty members and students. DISHA hopes to give direction to the creative aspirations of our gifted student body. We were successful in maintaining the legacy of our beloved DISHA with the help of the wonderful and brilliant minds of the magazine committee.

This year, DISHA has entered into its 42nd year of running. DISHA has been encompassing the varied themes of SPCE across four decades, witnessing generational shifts since its inception. To stretch our imagination beyond the confines of technical education, our magazine is a compass that guides you through years at SPCE, taking the creative route. DISHA serves to give expression to the budding artists, poets, and wordsmiths that lie within each of us, yearning to break free. With words, brushstrokes, scratches, and notes, we try to reproduce that one epiphany into a physical form, attempting to catch lightning in a bottle, striving to catch something fleeting, and recording it for posterity.

This edition revolves around the central theme of wildlife conservation and is named as "Resuscitate" which refers to efforts to revive or restore populations of endangered or threatened species that have experienced significant declines in their numbers. The main goal of resuscitation efforts is to help populations recover and thrive, ultimately reducing their risk of extinction. We aim to address the same because the solution to every problem starts with talking about it first. It is expected to educate the readers about the happenings of the world in the hope of uniting them to put their best foot forward and nullify the damage done for a better tomorrow.

We are extremely thankful to our Respected Principal, Dr. M. M. Murudi. Our utmost gratitude to Dr. Shyamlee Solanki, Chairperson, Student's Welfare Committee, and all the members for being constant pillars of support and encouragement. Also, we would like to thank the students and the faculties for cooperating with us for all the reports and photographs, and our fellow and former council members, friends, and family for believing in and motivating us. We are grateful to our committee, without whom this magazine would have been merely imagination, with special mention to Digvijay, Rajvardhan, Rickson, Meghna, Arya, Swati, and Rohini, who shared the vision of the theme and helped us put that into pages. We are very glad to appraise Ms. Pallavi Ghevade for proofreading the magazine.

The process of creating and observing art often brings about a renaissance of forgotten ideas, talents, and stories hiding beneath us. Creating this magazine was once a small dream of ours, but now that it is a reality, everything has come together so seamlessly that we hope every reader will learn something from it. So, without further ado, we dive headfirst into that infinite pool of creativity and craftsmanship, skill, and artistry that is DISHA.

~ Aryan Pawar & Nidhi Shah
Magazine Secretaries,
Students' Council 2022-23.

From Principal's Desk

Dr. M. M. Murudi

Sardar Patel College of Engineering (SPCE) was established in 1962 under the management of Bhartiya Vidya Bhavan. SPCE was granted autonomy in 2010, and the college has achieved numerous milestones since then. SPCE has always strived to meet the growing demand for engineering talent and to continue growing and improving.

The National Board of Accreditation (NBA) Expert Team visited the institute from 24th to 26th February 2023 to evaluate UG Engineering Programmes in Civil and Mechanical Engineering. The civil engineering and mechanical engineering UG programmes of the institute are accredited by the NBA from the academic year 2022-23 to 2024-25. The institute has also been accredited by the NAAC with a rank of 'B' for the period of 5 years from 2021-22.

SPCE is now entering its 13th year of autonomy, and the institute has successfully completed the academic year 2022-23 via offline mode teaching and learning, as it used to happen before COVID-19. The institute completed 60 years (Diamond Jubilee years) on 19th August 2022. On this occasion, the institute had planned several activities, including the international conference SPICON. Sardar Patel International Conference on Industry 4.0– Nascent Technologies and Sustainability for Make in India Initiative (SPICON 2022) was successfully organized on 22nd and 23rd December 2022. SPICON received sponsorship from government organizations such as SERB, CSIR, and AICTE and professional bodies such as IIIE, as well as from private organisations such as Turnitin and Apex. Dr. Sharad Saraf, Chairman BoG IIT Bombay and IIT Jammu graced the SPICON-2022 as a Chief Guest. Industry experts from Capgemini presented a broad outlook through keynote lectures and also conducted various tutorials and workshops at SPICON. The conference received an overwhelming response of 330+ papers from different countries like the USA, Korea, Oman, Malaysia, etc. A total of 187 research papers were presented at SPICON 2022. Papers presented at SPICON 2022 are submitted to AIP and IEEE for proceedings.

In the curricular reforms, the Institute has implemented minor and honours certification programmes and credit-based internships. Provisions to earn credit through NPTEL courses have also been implemented. For the batch entered in 2022, there are provisions for minor and honours degree programmes and one semester of credit-based internships.

Our professors and the supporting staff of SPCE have worked hard towards implementing courses and programmes that play a major role in improving the students' technical skills and in their overall development. SPCE received funding from SERB for various research projects. To highlight a few:

- Dr. Anil Ghadge received project funding of Rs 45.89 lakhs for his research project "Application of Bio-electrochemical System for Electrocoagulation and Development of Anion Exchange Membrane using Clay Minerals"
- Dr. Kiran Suresh Bhole received project funding of Rs 31.80 lakhs for his research project "Investigation of Fractal Growth on the Curved Surfaces in Hele Shaw Flow".

- Prof. Sharad Valvi received project funding of Rs 18.30 lakhs for his research project "Experimental and Numerical Investigation of Alumina Micromachining Process by Electrochemical Discharge Machining (ECDM)".
- Dr. Kiran Suresh Bhole is also involved as CO-PI on joint research project of 1.73 Crore with Prof. Prasanna Gandhi, IIT Bombay on project titled "Development of machine for rapid fabrication of the biocompatible microneedles, followed by clinical testing".

The SERB-sponsored project's laboratory is established in room number 243. Four ongoing research projects sponsored by SERB are being set up in the laboratory.

Our professors have attended international conferences, participated in various webinars and workshops, and have also engaged in research projects to broaden the scope of their knowledge and published research papers. The Institute has conducted four AICTE-sponsored ATAL workshops at the national level. SPCE exhibits good performance in the research publications of the calendar year 2022. Total 39 (35 Journals and 4 Conference papers) research papers are published in the calendar year 2022. The publication count per faculty per year rose from 0.54 to 0.89.

The Civil Engineering Department has taken the lead in testing and consulting projects. In the year 2022-23, the department has generated revenue of Rs .One crores twenty one lakhs by means of testing and consultancy works.

Eight student projects were shortlisted for the final rounds of the 16th AVISKAR research convention organized by the University of Mumbai. Students achieve good ranks in international and national project competitions such as ISHARE, ASHRAE, AVISHKAR, etc. To highlight a few:
- Ishwar Anil Nimbhore, Third Year Civil Engineering Student with his Team Waste2Wealth members from Government Engineering College Jalgaon and SSBTE College won the silver award of INR 2,50,000 for developing W2W Energy, Fuel and Mobility Generation from Innovative Biogas Plant.
- At ASHRAE Mumbai Chapter - Mr. Piyush Dhatrak and Mr. Saad Khan are the Winners of Paper Presentation Competition and they further represented ASHRAE Mumbai Chapter at ASHRAE Region at Large (RAL) on International Level.

The supporting staff engages in several developmental courses and strives to implement better practices amongst the students and professors alike. Eight supporting staff members have been promoted this academic year. The institute has always prioritised the overall development of its students. The students have also organised the technical and social events, like SPHINX, SPIRIT, and the annual debate competition, in the offline mode this academic year. The SPCE alumni association is active and has several plans to contribute to the growth of the institute.

Institute is proud to share few of the notable achievements of the recent alumni:
- Ms. Sharada Gavde received admit from TU Delft (61st in QS world ranking 2022) for MS program in Management of Technology with prestigious Justus and Louise van Effen Excellence Scholarship for full coverage of tuition fees and living expenses.
- Ms. Sharada Gavde also provided generous sponsorship to institute in terms of data acquisition kits for Mechanical Engineering Measurement laboratory.
- Mr. Alan Correa has been honoured by RWTH Aachen University Germany (147th in QS world ranking 2022) for his outstanding performance in Master's program in Computer Aided Conception and Production in Mechanical Engineering.
- One of our proud alumni of batch 2017, Mr. Asif Hasan (GATE AIR 1) has joined PhD program in TU Delft.

Every year, the institute organises alumni meet for the holistic development of the institute. This year's alumni meet was held on 8th April 2023.

FACULTY ADMIN

Dr. M. M. Murudi

I/C Principal, Head -
Civil Engineering Dept.

Dr. Sangeeta Daingade

Head - Electrical
Engineering Dept.

Dr. Ramsubhash Maurya

Head - Mechanical
Engineering Dept.

FACULTY

CIVIL

Left to Right: Prof. K. A. Nadgouda, Dr. Reshma Raskar, Ms. Akshata Despande, Dr. Hansa Jeswani, Dr. M. M. Murudi, Dr. A. R. Kambekar, Dr P. G. Gaikwad, Prof. S. J. Kumbhar, Mr. Ankit M. Asher.
Missing: Dr. Prashant Nagrale, Dr. A. A. Bage, Dr. A. N. Ghadge, Dr. Tanuja Bandivadekar, Prof. Shweta Patil.

ELECTRICAL

Left to Right: Mr. Rahul Chavhan, Mr. N. G. Bhitre, Dr. Nandkishor W. Kinhekar, Dr. B. B. Pimple, Mrs. Sumbul Abidi, Dr.(Mrs.) Sangeeta Daingade, Dr. (Mrs.) Swati A. Lavand, Dr.(Mrs.) Anupa Sabnis, Mrs. Ushma Shah, Mrs. Matilda J.
Missing: Dr. Rahul T. Dahatonde, Mrs. V. P. Joshi, Mrs. Prajakta Joshi, Mr. Vishal Dake.

FACULTY

MECHANICAL

Left to Right: Mrs. Megha Janbandhu Nagrale, Shri. Kunal Bhavsar, Mr. Sharad Valvi, Prof. Parag, K. Muley, Dr. Ramsubhash Maurya, Dr Nilesh Raykar, Dr. Kiran Suresh Bhole, Dr. B. N Bhasme, Dr. Santosh Rane, Dr. Rajesh Buktar.
Missing: Prof. Dattatray N. Jadhav, Shri. Sachin Vankar, Mr. Haseen Shaikh.

FIRST YEAR

Left to Right: Mr Ankit M. Asher, Mrs. Muthuchelvi Thangam, Prof. K. A. Nadgouda, Dr. Rajesh Buktar, Dr. Shyamlee Solanki, Mr. Satishkumar G. Barot, Mrs. Megha Janbandhu Nagrale, Shri. Kunal Bhavsar, Mr. Sharad Valvi, Dr. Jayram V. Gholave.
Missing: Mr. Vinodkumar I. Sharma, Ms. Divya T. A.

ANNUAL REPORT 2022-23
DEPARTMENT OF CIVIL ENGINEERING

The Civil Engineering Department has been in existence since the establishment of this institute. The department has an excellent infrastructure and is AICTE-approved. Apart from the undergraduate programme, postgraduate programmes in construction management and structural engineering are offered. The department is approved by the University of Mumbai for the Ph. D. programme, with an intake capacity of 45. In addition, the department has been selected as a QIP centre by the AICTE. AICTE provides full financial assistance for three years to the research scholars registered under QIP. Also, under this QIP, the department can conduct a number of short-term courses in the area of civil engineering, and a complete financial assistantship will be provided by AICTE.

- ## NBA Accreditation

Sr.no	Course	Accreditation
1	UG (CIVIL)	Accredited by the NBA from the Academic Year 2022-23 to 2024-25 i.e. up to 30.06.2025
2	PG (Construction management)	Accredited up to 30.06.2022 For further accreditation, prequalified has been approved and SAR is in progress
3	PG (Structural Engineering)	Applied for accreditation, SAR is approved and visit by NBA team is expected soon

PhD awarded:
Mr. Viren Bhikaji Chandanshive, a PhD student of Dr. A. R. Kambekar, successfully defended his PhD thesis on 5th April 2023 and has become eligible to receive a PhD degree in Civil Engineering.

Department Activities:
- ## Organized workshop by Experts from Industry (Total:05):
1. Two guest lectures organised by SPSGIC.
2. 2-Day training workshop on "Repair and Retrofitting Technologies" for practicing engineers and civil engineering students.
3. Dr. Kshitija N. organized two guest lectures for UG students on geotechnical Engineering.

- ## Site Visit Organized (Total:04):
1. Visit to SPJMIR hostel construction site for T.Y. B.TECH. on 25/02/2022 to 27/02/2022.
2. Visit to Colaba Sewage Treatment Plant (STP) for T.Y. B.TECH. on 26 Nov, 2022.
3. Visit to the World of Concrete India 2022 for S.Y. & T.Y. B.TECH at NESCO Goregaon on 15th Oct 2022.
4. Visit to IFAT 2022 for SY & T.Y. BTECH at NESCO Goregaon on 30th September 2022.

- ## Guest Lectures by Experts from Industry/Institute Organized (Total:03):
1. A Guest lecture was organized for Final year B.Tech. & M.Tech. students on "Cold form steel structures " delivered by Mr. Brijesh Pandya, L & T.
2. Dr. Kshitija N. organized two guest lectures for UG students on geotechnical engineering.

- ## Guest Lectures delivered by faculty members at other institutes (Total:07):
1. Dr. H. S. Jeswani has delivered a guest lecture at SINE IITB.
2. Dr. H. S. Jeswani gave a guest lecture at INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SUSTAINABILITY (ICES-2023) on 16 - 17 March,2023.
3. Prof. Snehjit Kumbhar has delivered a guest lecture on solid waste management at Datta Meghe College of Engineering.

4. Dr. A. R. Kambekar delivered an online lecture on "Introduction to Sustainability" during a short-term training programme on "Environmental Engineering for Global Sustainability" (from 1st August-5th August) conducted by Saraswati Institute of Technology Kharghar on 1st August 2022.

5. Dr. A. R. Kambekar delivered a lecture on "Ports and Horbour" at KIT Kolhapur on 4, 5 and 6th August 2022.

6. Dr. A. R. Kambekar delivered a lecture on "Sea Level Rise and Climate Change) on 02 January 2023 at VishwaNiketan IMEET Khopoli Raigad, Mumbai University, during the STTP on Climate Change, Mitigation, and Adaptation, held during January 2023.

7. Dr. A. R. Kambekar chaired a session on 16 March 2023 during the International Conference on Environmental Sustainability (ICES-2023), 16-17 March 2023, Veermata Jijabai Technological Institute, Matunga Mumbai.

Faculty Achievements :

1. Dr. H. S. Jeswani worked as an environmental consultant for Nagpur Mumbai Expressway; Konkan Expressway, and Bandra-Versova Sealink.

2. Dr. H. S. Jeswani worked as a mentor for SINE IITB, KIIT Bhubhaneshwar, & SIIC, IIT Kanpur.

3. Dr. A. R. Kambekar worked as Referee/Reviewer (International Journals/State level Competitions):

• Water Science and Technology, IWA Publishing.

• ISH Journal of Hydraulic Engineering Taylor and Francis.

• Nanyang Academy of Sciences (http://ojs.nassg.org/) Journal of Sustainable Marine Structures, Singapore.

• Expert for the evaluation of diploma-level project competition at the state level, organized by the Maharashtra State Board of Technical Education (MSBTE), include:

o Guru Govind Sing Polytechnic Nasik (25-03-2023 to 29-03-2023)

o Sanjay Ghodawat Polytechnic Hatkananganle Kolhapur

o Bharti Vidyapeeths Institute of Technology (31-03-2023)

o NIT Polytechnic Nagpur (03/04/2023)

• Member of the PhD progress committee at NMIMS (the deemed university) in Mumbai).

• Member of the PhD progress committee at the Amity School of Engineering & Technology, Amity University Mumbai.

• Examiner of PhD Thesis Submitted to the Savitribai Phule Pune University, Pune- 411007

- **Faculty members attended seminar/workshops. (Total= 05)**
  No. of ATAL FDP courses completed by Faculty: 04

- **No. of Publications by faculty members: (Total=48)**

Sr. No	Name of the faculty	Total
1	Dr. M. M. Murudi	05
2	Dr. A. A. Bage	06
3	Dr. A. R. Kambekar	06
4	Dr. P. G. Gaikwad	02
5	Dr. H. S. Jeswani	07
6	Dr. Reshma Raskar Phule	06
7	Dr. A. N. Ghadge	04
8	Dr. K. Nadgouda	01
9	Prof. S. J. Kumbhar	02
10	Prof. Akshata Deshpande	03
11	Prof. Ankit Asher	06

- **Revenue generated by department through consultancy & Testing**

Sr. no.	Description	2022-23
1	Consultancy and Testing	1,21,28,799/-

Student Achievements:-

No. of Final year students passed GATE-2023: 09

No. of students who got Campus Placement (2022-23): 26

No. of Final year students passed GRE: 04

No. of Final year students passed CAT: 02

No. Paper Publications in Journals & Conferences: 20

Workshop organised Through CEA : 02

Expert Talk organised through SPSGIC :02

Site Visit organised through CEA :03

Result Analysis:-

1	S. Y. B. Tech (Civil)	49.21%
2	T. Y. B. Tech (Civil)	68.06%
3	B. Tech (Civil)	85.14%

ANNUAL REPORT 2022-23
DEPARTMENT OF ELECTRICAL ENGINEERING

The Department of Electrical Engineering was established in 1962 with an undergraduate programme in Electrical Engineering. In the academic year 2014-2015, the department started the postgraduate programme in Power Electronics and Power Systems. In the year 2018–2019, the department received approval for a Ph.D. programme from the University of Mumbai. The intake for these programmes is sixty, eighteen, and ten, respectively.

The department has excellent infrastructure. The strength of the Department of Electrical Engineering is its faculty, students, supporting staff, and alumni. The department has expertise in the fields of power systems, electrical machines and drives, electronics, communication engineering, and control systems. Among the faculty, five members have completed doctorates from reputed institutes, and the remaining are either pursuing or trying to get admitted to a Ph. D. programme.

Vision:
The Department of Electrical Engineering aspires to produce socially responsible and dedicated electrical engineers by providing conceptual learning that enhances research-based activities.

Mission:
• To educate through classroom teaching along with intensive practical activities and promote academic excellence with the help of expertise in different fields of electrical engineering from industries and academic institutes.
• To promote innovative ideas through seminars and projects.
• To bring awareness of social responsibilities as an Electrical Engineer

This report presents the academic activities of Electrical Engineering Department in A.Y. 2022-23. All activities are planned and executed considering the overall development of students.

• **Academic Activities:**

Curriculum:
The department is aligned with the AICTE model curriculum. The department offers a variety of courses under Professional and Open Electives. The professional electives cover advanced courses in electrical engineering, whereas the open electives cover interdisciplinary courses. The department has a history of excellent placement, and this curriculum will further improve graduate employability. The elective courses are useful for students continuing their higher studies. To get conceptual clarity, the department runs two general laboratory courses, namely, Electrical Simulation Laboratory and Electronics Design Laboratory. Apart from regular experiments, many of our laboratory courses require students to execute mini projects for the completion of their courses, which gives hands-on experience to students and helps them complete their final year projects.

The curriculum revision (Regulation 2022- R22) was initiated this year with the revision of first-year courses and the scheme for second- to final-year classes. This revised curriculum will be applicable for the batches admitted in F.Y. in 2022-23. The curriculum has features like an internship during the semester, skill-based courses, and professional and open elective courses. A track on electric vehicles is added to the professional elective list.

This year, a value-added course on soft computing was conducted for all second-year students. Prof. Matilda Mary coordinated this activity. After the end of the lockdown period, the department arranged extra practical sessions for courses such as electrical machines, power electronics, electronics, microprocessors, and measurement for all students of the third and final year who had missed their practicals due to the pandemic. This activity helped them make a smooth transition from online to offline mode. All the departmental faculty conducted this activity proactively.

Industry Institute Interaction:

A memorandum of understanding was signed with the following industries to promote industry-institute interaction:

1) POLYCAB INDIA LIMITED

2) WESTERN REGIONAL LOAD DESPATCH CENTRE (WRLDC), M/S POWER SYSTEM OPERATION CORPORATION LIMITED (POSOCO)

The following events were carried out under these MOUs:

1) An induction programme named "Be the Ampions!" was organised by the Polycab industry to provide students with an opportunity to interact with industry experts and learn all about cables-the basics, manufacturing, and future goals in the industry.

2) Third-year students did an internship at POSOCO during winter vacation and will be doing a final year project.

Many of the students did internships in industries like MSEB, TATA Motors, Western Railways, BEST, POSOCO, etc. Industry experts were involved in the development and revision of the curriculum. An industrial visit to Uran Gas Power Plant and JNPT was arranged for third year electrical students in April 2022. The visit to Dahanu Power Plant was organized in March 2023 for third-year B. Tech students along with faculty. Prof. Rahul Chavan and Prof. Vishal Dake had taken special efforts to arrange the same.

Department faculty Dr. B. B. Pimple, Dr. Anupa Sabnis, Prof. N. G. Bhitre, Prof. Prajakta Joshi, Prof. Rahul Cahvan, and Prof. Vishal Dake participated in Third Party Verification assignments with Bhiwandi/ Khopoli Municipal Corporation and Nizampur-Bhiwandi Municipal Corporation.

Guest Lectures:

The following guest lectures were arranged for students. These lectures were delivered by experts from industry and reputed academic institutes to update students with advances in technology:

• Designing PI controller for a Buck Converter circuit using MATLAB PID tuner
• Wide Area Monitoring System (WAMS)
• Research Ethics
• Distributed control system
• Preparation of GATE

The Following guest lectures were delivered at other institutes by Department faculty:

• Dr. Swati Lavand delivered a talk on Wide Area Measurement Systems: Fundamentals & Applications" at Lokmanya Tilak college of Engineering, Navi Mumbai.

A few laboratory sessions in Analog Electronics, Digital Electronics, Control Systems, and Signals & Systems were conducted by research scholars pursuing a Ph.D. from IIT Bombay, which helped students learn hardware experiments and new simulation techniques.

Students Achievements:

·The Electrical Engineering Students Association (EESA) is active throughout the year. The students conducted and participated in many technical and extracurricular activities under the guidance of department faculty coordinators Mr. Rahul Chavan and Mr. Vishal Dake.

The following workshops are conducted by EESA:

1. Scientific Calculator Workshop
2. Two-day Matlab workshop
3. Proteus Software Workshop
4. LT Spice Software Workshop
5. Trical Masterminds
6. EESA Cup
7. SPCE Cup
8. Coding Workshop in Collaboration with the Elite Coders Club

9. Industrial Visit
10. Trek
11. Blood donation
12. Shiv Jayanti
13. Rangoli competition
14. Poster competition
15. Photography competition
16. Women's Day

• Mr. Somesh Pawar secured AIR 71 and Mr. Nikhil Dhage secured AIR 1471 in the GATE-2023 examination.

• UG, PG, and PhD students have published papers in various international conferences.

• The ELITE Coder's Club organised workshops to inculcate a coding culture among students. Prof. Ushma Shah is the faculty coordinator for the same.

• Department students are participating in various activities and competitions via ROBOCON, WAVE, Car Racing teams.

• IEEE student chapter conducted the following activities:

1) Talk on Guidance Session on GATE Preparation by Mr. Somesh Pawar.

2) Alumni Discussion series by Mr. Manish Sainani.

• Mr. Tanishq Kale, Mr. Shewale Nimesh Madhukar, and Prof. Joshi Prajakta submitted a research proposal in the Engineering and Technology category for the Selection Round of the 16th Inter-Collegiate/ Institute/ Department Avishkar Research Convention: 2021-22 for All Engineering Colleges of All Districts zone. Out of these two research proposals, were selected for the Final Round of 16th Inter-Collegiate/ Institute/ Department Avishkar Research Convention, 2021-22, held in April 2022.

• Four UG, two PG, and one PhD student submitted research proposals in the Engineering and Technology category for the Selection Round of the 17th Inter-Collegiate/ Institute/ Department Avishkar Research Convention: 2022-23 for All Engineering Colleges of All Districts Zone. Out of these two research proposals, two were selected for the Final Round of the 17th Inter-Collegiate/Institute/Department Avishkar Research Convention, 2022–23, held in December 2022.

Publications:

Department faculty and students have published research article in international conferences/ Journal. Following is a list of publications-

1) Sumbul Hasan, Himanshu Bahirat and Prashant Navalkar, "A Statistical Method for Sizing Storage for Large Wind Farms", SPICON 2022.

2) Prajakta Joshi and Anupa Sabnis, "Protection Of Solar PV Connected Distribution and Transmission Networks: A Review", SPICON 2022.

3) Pooja Chaurasiya and Swati Lavand, "Power System Oscillation Modes identification using TLS-ESPRIT and optimization of its parameters", SPICON 2022.

4) Mepani M.M., Gala K.B., Mishra T.A., Suresh Bhole K., Gholave J., Daingade S., "Design of robot arm for domestic culinary assistance", Materials Today: Proceedings, Volume: 68, pp. 1930-1945, 2022.

5) Gokhale P.N., Patil B.R., "Correlation between Renal Tracer Parameters Derived for Recognition of Renal Obstruction with 99mTc-DTPA Scintigraphy", International Conference on Emerging Trends in Engineering and Technology, ICETET-2022, April 2022.

6) Mandar Vardam, Ayush Mishra and Jayant Shete, "A Review: Comparison of the different MPPT algorithms for efficient power transmission by the PV system", SPICON 2022.

7) Pradnya Gokhale and B.R. Patil, "Renal Pelvic Ureteric Junction Obstruction (PUJ)-A Correlative Study of Renal Tracer Parameters Using 99mTc-DTPA", SPICON 2022

8) Sidharth Dhamankar and Nandkishor Kinhekar, "Modelling of Grid Connected PV/Wind Hybrid with Reactive Power Control", SPICON 2022.

9) Aditya Kadam and Vishal Dake, "Modelling & Analysis of Solid-State Transformer for Integration of Renewable Energy Sources to The Grid", SPICON 2022.

10)Antro Hanson Nadar and Vishal Dake, "Charging Station for Electric Vehicles using Hybrid Sources", SPICON 2022.

11) Abhishek Bhatkar and Badrinarayan Pimple, "Analysis of Fast Charging Techniques using Buck Converter", SPICON 2022.

12) Pranav Andhalkar and Vishal Dake, "Electrical Vehicle charging station and monitoring its parameter through IOT", SPICON 2022.

13) Amit Sonkamble, Rahul Chavhan, Bhimrao Jadhao and Shivraj Rathod, "Real-Time Indian Sign Language Detection using SSD-Mobilenet", SPICON 2022.

14) Arvind Mahajan, Sunil Kumar, Rahul Chavhan, Sachin Kale, Mandar Sonawane and Rajendra Londhe, "Does the Smart Tour Guide App Match Visitor Expectations as A Tour Guide:An Analysis of Pinakin App User Reviews", SPICON 2022.

15) Prachi Sahu, Dhanashree Mehare, Isha Likhite, Vaibhav Ramesh, Harsh Habbu, Sagar Kadel and Sakshi Kolekar, "Effective Utilisation of Simulation Tools in the design of an Unmanned Aerial Vehicle", SPICON 2022.

16) Tanishq Kale, Divyesh Jilka, Aditya Thakkar and Parag Muley, "Condition Monitoring- An Emerging Predictive Maintenance Technique in Continuous Process Plants", SPICON 2022.

17) B. B. Pimple, Surendra Babu, "Understanding the rotor flux behaviour of a multi-megawatt DFIG in wind energy Conversion", Selected in Inderscience Journal.

18) Pranita Chavan, BR Patil, "Harmonic Elimination with Multilevel Inverter Based Hybrid Filter Using Artificial Intelligence Approach", International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), IEEE, August 2022.

19) Pranita R Chavan, BR Patil, "Power Quality Improvement Techniques in Distribution Network with Harmonic Consideration", Harbin Gongye Daxue Xuebao/Journal of Harbin Institute of Technology, Volume: 54, Issue: 6, pp 276-283, June 2022.

The best paper award was given to the following papers:

1) Sumbul Hasan, Himanshu Bahirat and Prashant Navalkar, "A Statistical Method for Sizing Storage for Large Wind Farms", SPICON 2022.

2) Prajakta Joshi and Anupa Sabnis, "Protection Of Solar PV Connected Distribution and Transmission Networks: A Review", SPICON 2022.

3) Pooja Chaurasiya and Swati Lavand, "Power System Oscillation Modes identification using TLS-ESPRIT and optimization of its parameters", SPICON 2022.

Patents Granted:

1) Dr. Anupa Sabnis was granted Patent for 'METHOD OF CAPTURING A FULL 360 DEGREE VIEW USING PANORAMIC IMAGING SYSTEMS' Indian patent 399771.

2) Dr. Swati Lavand was awarded Patent for 'Method For Reliable Power Swing Detection and Event Detection' Indian patent 414180.

Departmental faculty have worked as reviewers in reputed conferences and transactions such as, IEEE PES Transaction on Power Delivery, the National Power System Conference NPSC – 2022, the 5th Biennial International Conference on Nascent Technologies in Engineering ICNTE – 2023, SPICON 2022, and the International Conference on Recent Evolutions in Energy, Drives, and e-Vehicles (REEDeV-2022). Also, departmental faculty have been invited to serve as session chairs in reputed conferences such as SPICON 2022, ICES 2023, and the International Conference on Recent Evolutions in Energy, Drives, and e-Vehicles (REEDEV) 2022.

Placements:

A total of 59 students from the Electrical Department were placed in A.Y. 2021–2022 in reputed companies like TCS, Capgemini, Infosys, TVS Motors, Cognizant, and Blue Star.

We are sure that department activities and achievements will definitely grow with the years.

ANNUAL REPORT 2022-23
DEPARTMENT OF MECHANICAL ENGINEERING

General Information:
The Department of Mechanical Engineering has 13 faculties and 15 supporting staff.
The Mechanical Engineering program got accredited by the NBA for a period of three years.

Student Achievements

1. 74 students appeared in the final-year mechanical examination. 70 students passed the examination, of whom 43% got distinction and 46% passed with the first class.

2. Among all those who appeared for campus placement, 45 students got campus placement with an average salary of 5.5 lakhs.

3. Student Activity:

- An expert lecture on '3D printing technology' organized by MESA on 29/09/2022.
- Mr. Chinmay Dabholkar, Mr. Jai Naik, and Mr. Harsh Harale, under the supervision of Prof. Parag Muley, published a journal paper titled 'Design of battery thermal management system of an electrical vehicle for an Indian scenario' in the International Journal of Industrial Electronics and Electrical Engineering.
- On 23rd of September 2022, MESA organized a one-day industrial visit to the MSME Research and Technology Centre IDEMI, Mumbai. 35 students participated.
- Team SPCE Wave won 2nd rank in the best technical presentation and 3rd rank in overall performance (regular class) at the 7th SAEISS Aero Design Challenge held at the SRM Institute of Science and Technology, Chennai, 1 to 3, September 2022.
- To demonstrate different welding processes, the students of final year mechanical went on an industrial visit on 26th August 2022 to Marol Industrial Estate under the supervision of Prof. Sharad Valvi.
- A mini-project exhibition of the first-year mechanical students was conducted on 18th August 2022 under the guidance of Prof. Sharad Valvi. The theme of the exhibition was the application of different sensors in Arduino projects.
- Mr. Bhaveshkumar Pasi, under the guidance of Dr. S. B. Rane, got second rank for his research proposal at the 16th inter-collegiate/institutional/departmental 'AVISHKAR' research convention organized by the University of Mumbai
- A 4-day certified workshop on AutoCAD Workshop' was organized by MESA from January 6 -13, 2023. A total of 62 students from civil, mechanical, and electrical engineering attended the program.
- Mr. Shrikant V. Baste, under the supervision of Dr. Sudhakar Umale, received a 'Gold Medal' under the automotive category for his poster presentation on his PhD research work at the International Exhibition INVENTCOR, held in Romania on 15 to 17 December 2022.
- Ms. Radhika S Mhaske, got selected in 'INDIAN AIR FORCE' under technical branch.
- Mr. Madan Naryanan, Mr. Kaif Badshah, and Mr. Shashank Phulmali secured 2nd runner-up at the ASHRAE Mumbai paper presentation competition (chapter level).
- Miss. Isha Likhite, Miss. Ishani Prabudesai, and Miss. Kripa Sethi were awarded the best paper award for their presentation at ICES-2023, held at VJTI on 16th and 17th March 2023.
- Mr. Piyush Dhatrak and Mr. Saad Khan, secured the 3rd rank at the ASHRAE RAL (international level) paper presentation competition.

- Team SPCE Racing of 30 core students participated in the Formula Bharat 2023 competition at Coimbatore from 19-23 January 2023, with their first EV prototype, 'Voltron'. The team owns the 6th rank overall, the 3rd position in engineering design presentation, the 2nd rank in concept goal management report, and the 7th position in cost and manufacturing event.
- 49 students of third-year mechanical engineering have gone on a 9-day industrial tour to Chandigarh, Kullu, Manali, and Amritsar from 13 February 2023. The team was accompanied by Prof. Sharad Valvi and Prof. Haseen Sheikh.
- Mr. Tushar Parekh got an AIR-31 rank in the mechanical stream in the GATE-2022 Examination. He joined the master's program at IIT Mumbai.
- TESA SPCE organized the Marathi Bhasha Samvardhan Karyakram' twice in the year 2022-23. First program held on 15th October 2023, and second on 23-24 March 2023.

Faculty Achievements:

1. Dr. Sudhakar Umale, appreciated by SAE India- Western section for his 25 years contribution in building SAE India, on 8th January 2022.
2. Prof. Shard Valvi and Prof. Kunal Bhavsar, selected for PhD at SPCE research center, MU.
3. Dr. Kiran Bhole and his team received best paper award in the ASME conference 2022 IDETC/CIE, August 14-17, 2022, St. Louis, Missouri, for their work on ' Anisotropic approach to control viscous fingering patterning pattern generated I lifting plate Hele-Shaw cell. Travel was funded by CSIR.
4. Dr. Santosh B Rane and his student team has been granted a patent by patent office, GOI for their invention entitled 'A MACHINE FOR SOWING OF SUGARCANE UTILIZING RING PIT METHOD' on 21/06/2022.
5. Dr. Kiran Bhole and Dr. Nilesh Raykar, received a research grant of Rs. 3180921/- on 03/01/2022 (partial grant released), from SERB for their research titled 'Investigation of Fractal Growth on the Curved Surfaces in Hele-Shaw Flow'.
6. Prof. Sharad R. Valvi, under the mentorship of Dr. Pradeep Dixit of IIT Bombay, received a research grant of Rs.18,30,000/-on 19/3/2022 (partial grant released), from SERB for their research.
7. Dr. S. B. Rane received the SAE India Foundation Championship Award at New Delhi on 10th October 2022.
8. Dr. S B Rane coordinated the online National FDP – Analysis of Engineering Systems by CREO, from August 1-8, 2022.
9. Dr. Santosh B. Rane continued his research journey and received a milestone of 1000 Scopus Citations.
10. Dr. S. B. Rane was invited as a guest Speaker at WCMRI Conference-2022, held on 28-29 October 2022.
11. MED Faculties published more than 35 research works in the SCOPUS Indexed Journals.
12. A consultancy project of Rs. 20,000 from Bhiwandi Municipal Corporation successfully completed by Prof. Sharad Valvi and Prof. Haseen Sheikh.
13. Dr. S B Rane and Dr. Kiran Bole led the Sardar Patel International Conference on "Industry 4.0 – Nascent Technologies and Sustainability for 'Make in India' initiative", held on 22-23, December 2022
14. Dr. Megha Nagrale, published two patents.
15. Dr. S. B. Rane was invited as guest and speaker at 'Manthan: A Positive Step, 'New Education Technologies NEP-2020' organized by FELA in New Delhi on September 24, 2022.

Administrative Changes:

1. Dr. Sudhakar S. Umale retired from the service in June 2022.
2. Dr. R. S. Maurya took over the charge as department head on 1st June 2022.
3. Shri. Kumar Shinde, supporting staff, left for his heavenly abode.
4. Laboratories -Mechanical engineering measurement, Dynamics of machines, Heat and Mass Transfer and Refrigeration and A/C, shifted from the workshop area to the main building area.
5. It is resolved to award the best BTech mechanical project every year in the domain – Design, Thermal, Manufacturing and Emerging areas.
6. A new committee room for the Department of Mechanical Engineering was inaugurated by Dr. M. M. Murudi, Principle, SPCE.

Curriculum Changes:

- New curriculum regulation R-22 introduced, where a provision for 6-month internship is made for semester VIII students
- It is proposed to start the BTech project from semester-VI and finish in semester-VII.
- A new elective course introduced "Fatigue Fracture and Failure Analysis (PE-BTM718)"

Expert lecture on 3d printing technology by Mr. Mayur Warudkar, IDEMI

Industrial visit to MSME Research and Technology Centre IDEMI, Mumbai

2 days PLC Training program on 25-26 March 2023

SPCE W.A.V.E. at Chennai in September 2022 Overall Performance in Regular Class - 3rd Place

Best Technical Presentation - 2nd Place

4 days ' AUTOCAD Workshop' being conducted during January 6-13, 2023.

Faculties interacting with students during Mini project exhibition

SPCE Racing team at Coimbtore in January 2023

Ms. Radhika S Mhaske, selected in IAF under Short Service Commission

Mini project exhibition by first year mechanical students

Dr. S B Rane receiving 'Championship award' at New Delhi

Marathi Bhasha Samwardan Karyakram
15th October 2023   23-24 March 2023

FIRST YEAR ENGINEERING DEPARTMENT

The first-year department helps the students learn basic science courses, which lays the foundation for them to study the professional courses in their engineering program. The department also helps the students learn and enhance their communication and interpersonal skills and develop a fine overall personality. As a result, the students are better prepared to face the interviews for on-campus as well as off-campus placements and also perform well in their professional lives. Thus, the department creates a bridge between the basic sciences, humanities, and engineering, a prerequisite for a good engineering programme.

The department has well-qualified and experienced faculty and also well-equipped, state-of-the art laboratories. The laboratories are upgraded as per the needs and curriculum. The department conducts an orientation programme and an induction programme of 21 days for the newly admitted F.Y.B.Tech. students, where the students are exposed to various courses and also introduced to soft skills and the art of living. They are introduced to yoga and different outdoor and indoor sports for their overall physical and mental growth. The department (through the institute TPO) also conducts diagnostic tests for F.Y.B.Tech. students, which helps the students know their strengths and weaknesses so that they can work to overcome those weaknesses. Mentor faculty and in-house counsellors are available to help the students if they are facing any problems.

Dr. Shyamlee Solanki has been in charge as the **Head of the Department** of First-Year Engineering since 2nd May 2022 .

- **Department Activities**

 Dr. Shyamlee D. Solanki, (coordinator) and Dr. Kiran Bhole (Co-coordinator) Organized ATAL AICTE Sponsored two-week faculty development program on "Stress management, Art of Living and Effective Communication" from November 14, 2022 to November 25, 2022. The Institute received a grant of Rs. 3,00,000 for conducting the FDP. Eminent Professors form IIT's and Management institutes and IAS were invited as resource persons.

- **Faculty Achievements**

1. Dr. Shyamlee Solanki got selected as a member of the Board of Studies at the NMIMS Mukesh Patel College of Engineering. She is also a visiting faculty member for their MBA and Tech courses in semesters VIII and IX.
2. Prof. Satishkumar Barot received a letter of appreciation from AICTE for contributing as a translator of the book "*Mathematics-I for Non-CSE*" of the 1st year undergraduate programme in Marathi under the AICTE Technical Book Writing Scheme as per the requirement of National Education Policy 2020.

Student Welfare Committee

- Dr. Shyamlee D. Solanki - Chairperson
- Dr. Jayram Gholave
- Dr. Anil N. Ghadge
- Dr. NandaKishor Kinhekar

- Prof. Megha Janbandhu
- Mr. Kishor Joshi
- Mr.Darshan C. Nawale

STUDENTS' COUNCIL

General Secretary :-
- Mr. Vineet Mankar

Technical Secretary :-
- Ms. Siddhi Sarak
- Ms. Khushi Jagetiya
- Mr. Shashank Phulmali

Cultural Secretary :-
- Mr. Deep Nagargoje
- Mr. Harsh Pawar
- Ms. Janhavi Gite

Magazine and Literary Secretary :-
- Mr. Aryan Pawar
- Ms. Nidhi Shah

Sports Secretary :-
- Mr. Harsh Todankar
- Mr. Vedant Khandekar
- Ms. Charuta Pharande

Ladies Representative :-
- Ms. Sayali Kathore
- Ms. Sharmeen Kazi

Finance Secretary :-
- Mr. Manthan Saste
- Ms. Pradnya Nile

Creative Head :-
- Mr. Kushal Jambhulkar
- Ms. Siddhi Ubale

Social Work Secretary :-
- Ms. Maithili Shinde

General Secretary's Address

I never thought making a simple one page address would get me scratching my head, but indeed, this tenure managed to pull that off as well. It just seems there is so much to say, but at the same time I'm in no mood to bore you, so I tried to condense the 8 glorious months of me and my team, Student Council Members 22–23, who stood by me, managing the whole college's expectations and concerns with just as much courage, and most of all believing in the vision that we all saw on our first day and drizzling life into it with your belief and efforts. So if it's a council member who is reading this, please get this very clear: every single one of you completes our team, making it what it is meant to be. And before peeking into this journey, there is a name I can't miss: that is Dr. Shyamlee Solanki, who has been a fantastic mentor for each and every one of us. No matter what problem we were challenged with, we always knew that we would walk out of ma'am's cabin with a solid solution.

It started on 13th September 2023, our first assignment of organizing a stem cell donor registration drive in SPCE in association with the Marrow Donor Registry of India (MDRI), which turned out to be an absolute success with 182 new willing registrations.

Following this endeavor was another humongous task for a newly formed team, arranging the Garba Raas for the first time after the unfolding of the lockdowns. On the eve of 30th September 2023, under the sky of dazzling lights and amidst the festive tune, students of SPCE moved and grooved along the beats in ardor. Finally, while getting some sleep, the preparations for the annual debate were already in place, and just because fortune favors the bravest, the annual debate team made a decisive impression by taking up the challenge and organizing Asian Parliamentary Style Debate for the first time in SPCE, culminating in a grand success. The arrival of the new batch of first-year aspiring engineering students marked the start of the induction programme, which was stretched over a period of two weeks grooming the newly admitted students by conducting a wide spectrum of events on personality development and team building.

This year, with the introduction of a "Social Secretary" in the Student Council, there has been a steep upward surge in the amounts of community service done by our students. It started with a book donation campaign that ran in college from 7th to 12th of January, 2024 with all the collected books going towards an orphanage. The Social Service team of the college was able to accomplish two more endeavours, the Versova Beach Cleaning Expedition and the Sanjay Gandhi National Park Cleaning Drive, in which the SPSGIC and RCSPCE clubs of SPCE played a crucial role in all the phases of the endeavour. Amidst all of these activities, the efforts for the preparation of SPHINX never fell short. The main strategy chalked out for the SPHINX 23 was to achieve massive reach amongst our own students and external students as well, which was achieved well and beyond our expectations by reaching almost 70,000 individuals through our Marine Drive Happystreet visits, social media handles, and website. And this could have been meagerly possible without the astounding work of the creative team, technical team, Spandan, and Pixel Vision of the SPHINX, who made a point to deliver enchanting and engaging content out there as an indispensable part of the journey. Finally, on 16th March 2023 with the immaculate inception of SPHINX, the massive response received by it in its first year of entirety itself gave a sense of accomplishment and satisfaction to every single one who had played a critical part in making this long leap possible.

Now looking back on my tenure as the General Secretary of SPCE, undoubtedly it was filled with moments of adversity, hardship, disappointment, and disagreement but also of joy, merriment, decisiveness, disagreements, pride, discovery, enthrallment, and a little embarrassment as well, but all these were craftily woven with the fabric of team spirit and care, building a fine experience of it that was always and will always be meant to be cherished and experienced at least once in a lifetime.

~ Vineet Mankar

Technical Secretaries Address

Here comes the formality as the technical secretaries address the reader. Being at this post, everyone expects us to write a thesis sharing our experience, but breaking the taboo by keeping it short and crisp is the way this time.

"The time runs, it does not stop for anyone". After the pandemic, preparing routines and coping with our tight academic schedule were major hurdles. We, as technical secretaries, had to maintain the enthusiasm and excitement of technical innovations among students.

With the help of different departmental committees (CEA, EESA, and MESA), we were able to reach out to the students through workshops, seminars, and interactive sessions. Teamwork is what we believe in. Our technical clubs, Racing, S.P.A.R.K. and W.A.V.E., with their continuous efforts and hardwork have made remarkable achievements nation-wide.

To celebrate technical innovations along with our culture, this year we organized a successful grand techno-cultural fest called SPHINX with the tagline Leonine Spirits and Human Intellect. With the constant support of council members, organisers, and the core team, we, the technical secretaries and cultural secretaries, were able to arrange innovative technical events, interactive cultural events, interesting fun events, and different exciting activities to attract the audience and maintain the legacy of our annual fest.

Specifying technical events that enhance the student's technical knowledge, whether it is calculating strength, using AutoCAD, coding, or making robots. We also organised some events that made students interview-ready. We also got some good research papers for our technical paper presentation.

We tried so hard and got so far, but in the end, it did matter, and we would cherish every moment throughout our lives. Cracking new deals, inviting influential judges, hosting talented participants, Organizing a rock concert—this three-day fest has set a benchmark for the next council to look upon. There are three rules to become famous. Unfortunately, nobody knows what they are. We have started the hunt to let the future technical secretaries continue.

~ Siddhi Sarak   **~ Khushi Jagetiya**   **~ Shashank Phulmali**

Cultural Secretaries Address

We were bestowed the honour of becoming the Cultural Secretaries, or some may even call it a troublesome duty with immense responsibilities, and it is also rightly said that "with great power comes great responsibility". Our tenure as Cultural Secretaries for the academic year 2022-23 was very rewarding and provided a huge learning opportunity.This academic year was nothing less than a roller coaster ride for us, but we managed it all together proficiently and successfully. What made this tenure valuable was that, like everything else, it couldn't last forever; even what made it precious was that it ended, and we know that now more than ever.

We began this year by rechristening and uniting the annual technical and cultural fests (i.e., SPACE and SPECTRA) into one, SPHINX-Leonine Spirits and Human Intellect. We, as the Cultural Secretaries, along with the Technical Secretaries, were responsible for controlling all the preparations and forthcomings of our respective technical and cultural events, but we take pride in saying that we did it together with one team and one goal: to make this fest of 16 unique events the grandest SPCE has ever seen. We, the Student Welfare Committee, Students' Council, core team, and organisers, were able to get hefty deals, invite influential judges, host extraordinary participants and an amazing audience, and also for the first time successfully manage the endeavour of a concert night starring KaamBhaari and Iqlipse Nova, where SPCE witnessed the first screening of a new song (Khwab) to be released. The fest was concluded with a DJ night, which was the perfect way to celebrate its success. The fest saw the participation of about 4000+ individuals. Well, organising this 3-day dynamic fest was super hectic and tiring, but we pulled it off with astonishing glamour. The fest, a few times, was in huge trouble, like when we had to cancel the biggest event, i.e., "Vogue," on the very first night of the fest due to rain, but we did overcome the issue by brainstorming for creative and feasible ideas that too in a very short time and managed to set up tarpaulin for the stage overnight. We, as a team, have taken the fest to heights it has never seen before and set up a legacy that the next student council would look up to. There were other events like the logo-making competition that marked the 60th anniversary of SPCE, Garba night, the induction programme for FYs, Republic Day, and Cultural Week, along with workshops and competitions arranged with the help of our cultural clubs: SPANDAN (music club), SPLASH (dance club), SPARKLE (fashion club), PIXEL VISION (photo-videography club), Speakers Club, and Rotaract Club.

Overall, the cultural activities of the college were successful in promoting cultural awareness and social consciousness among the students. We hope to continue the legacy of such events in the future and further enhance the cultural sphere of the college. To sum it up, being the Cultural Secretary is an exhilarating and adventurous experience that we wish everyone could have. It's an adrenaline rush that can't be compared to anything else, and it brings out the best in you. If we could tell you one thing that we learned, it would be that no matter how difficult it gets or how lost you feel, you must hold on to hope! Keep it alive! And fight until the end no matter what the situation is, because what better way is there to live? Lastly, we hope we did justice to this honourable designation.

~ Deep Nagargoje   **~ Harsh Pawar**   **~ Janhavi Gite**

Merit Students

C/M/E 2021-22		
Sr. No.	**Name of the Award**	**PRIZE AWARDED**
1	KULPATI'S GOLD MEDAL	For securing First Rank in First Attempt amongst students of this college in following Programs.
		B. TECH. (CIVIL) ABHAY JAGAT SHAH
		B. TECH. (MECHANICAL) ACHAWAL MUKUL
		B. TECH. (ELECTRICAL) PHONDKE SIDDHI RAMCHANDRA
2	KULPATI'S SILVER MEDAL	For securing Second Rank in First Attempt amongst students of this college in following Programs.
		B. TECH. (CIVIL) DALVI ATHARV MAHESH
		B. TECH. (MECHANICAL) NATHAN THEOFFY ANTHONY DSOUZA
		B. TECH. (ELECTRICAL) YADAV VIKAS CHHOTELAL
3	SHRI PRUTUVISH NARAYANDAS KILLAWALLA PRIZE	For securing highest scores in first attempt amongst students of this college at F.Y B.TECH. (ELECTRICAL) Examination held in previous academic year and joined in S.Y. B.TECH (ELECTRICAL) ATHARVA SUNIL FUNDE
		For securing highest scores in first attempt amongst students of this college at S.Y.B.TECH. (ELECTRICAL) Examination held in previous academic year and joined in T.Y.B.TECH (ELECTRICAL) CHAVAN NEHA SATISH
		For securing highest scores in first attempt amongst students of this college at T.Y.B.TECH (ELECTRICAL) Examination held in previous academic year and joined in B.TECH (ELECTRICAL) VARDAM MANDAR RAJAN
		For securing highest scores in first attempt amongst students of this college at B.TECH. (ELECTRICAL) Examination held in previous academic year PHONDKE SIDDHI RAMCHANDRA
4	SHRIPAD RAO DUBHASHI PRIZE	For securing highest scores amongst our successful college students in the subject of "Building Drawing with CAD" in S.Y.B. TECH (CIVIL) SEM. III examination held in previous academic year REDDY SHRIVVARDHAN VENKATESHWAR
5	SMT. AHILYABHAI TEMBE PRIZE	For standing first in the subject of "Design of RCC Elements" in T.Y.B.TECH. (CIVIL) Sem. VI examination held in previous academic year LIMAYE PRASHANT SUYASH
6	SHRI. R. M. JOSHI PRIZE	Has been awarded Prof. R. N. Joshi prize for securing highest scores in Sem. VII and Sem. VIII (CIVIL) taken together and passing separately during the previous academic year WANKHEDE PRATIK PRADIP
7	Dr. PRANLALA PATEL FOUNDATION PRIZE	Has been awarded Dr. PRANLALA PATEL prize for securing CPI in F.Y.B.TECH. (MECHANICAL) examination at the first attempt during the previous academic year BHUSARI SANKET LAHANU
		Has been awarded Dr. PRANLALA PATEL prize for securing CPI in S.Y.B.TECH. (MECHANICAL) examination at the first attempt during the previous academic year KHASBAGE ANSHUMAN ANIL
		Has been awarded Dr. PRANLALA PATEL prize for securing CPI in T.Y.B.TECH. (MECHANICAL) examination at the first attempt during the previous academic year MOHD IRFAN MOHD ISMAIL
8	SHRI JAYANTI SATYANARAYANA MEMORIAL PRIZE	For securing highest CPI in the subject of "Structural Engineering" Sem. V at the T.Y.B.TECH. (CIVIL) examination held in previous academic year ROKADE CHETAN TULSHIRAM
9	SHRI MARATHE MEMORIAL PRIZE	For securing highest CPI in the subject of "ENGINEERING MECHANICS" Sem. I at the F.Y. BTECH. examination held in previous academic year ATHARVA SUNIL FUNDE

10	SHRI MARATHE MEMORIAL PRIZE	For securing highest CPI in the subject of "Mechanics of Materials" Sem. III at the S.Y.B.TECH. (CIVIL) examination held in previous academic year KHANDEKAR VEDANT ARVINDRAO
		For securing highest CPI in the subject of "STRENTH OF MATERIALS" Sem. III at the S.Y. BTECH. (MECHANICAL) examination held in previous academic year KHASBAGE ANSHUMAN ANIL
11	COMMUNICATION SKILL PRIZE AWARDED BY STRUCTURAL DEPARTMENT FOR F.Y.B. TECH. CLASS	For getting max. scores in C.S. subject SHEKHAR DIGVIJAY DILIPKUMAR
12	INDIAN WATER WORK ASSOCIATION (BOMBAY CENTRE) CASH PRIZE	For securing highest scores in the SUBJECT "Environmental Engineering-II" T.Y.B.TECH.(CIVIL) Sem. VI Examination held in previous academic year SAIFEE BURHANUDDIN KHUZEMA
13	DR. G. A. MHASKAR AND DR. B.M. JOSHI PRIZE	For securing highest scores in the SUBJECT "Environmental Engineering-II" T.Y.B.TECH.(CIVIL) Sem. VI Examination held in previous academic year SAIFEE BURHANUDDIN KHUZEMA
		For securing 1st rank in B.TECH. (ELECTRICAL) Class. PHONDKE SIDDHI RAMCHANDRA
14	LATE SHRI NAMDEO B. DAHATONDE MEMORIAL AWARD	For securing highest Scores in the subject of "Digital Signal Processing" in T.Y. B.TECH. Sem V examination MISHRA AYUSH RAMSWAROOP
15	MERIT PRIZE (OR BOOKS) AWARDED BY STRUCTURAL ENGINEERING DEPARTMENT TO THE STUDENTS OBTAINING THE FIRST CLASS AND GETTING HIGHEST NUMBERS OF MARKS IN ALL STRUCTURAL ENGINEERING SUBJECTS	KHANDEKAR VEDANT ARVINDRAO
16	MERIT PRIZE ON THE BASIS OF MERIT IN THE PRECEDING EXAMINATION	F.Y.B.TECH. Electrical ATHARVA SUNIL FUNDE
		F.Y.B.TECH. Civil SHEKHAR DIGVIJAY DILIPKUMAR
		F.Y.B.TECH. Mechanical BHUSARI SANKET LAHANU
		S.Y.B.TECH. Electrical CHAVAN NEHA SATISH
		S.Y B.TECH. Civil ESHA JAGDISH BARAPATRE
		S.Y.B.TECH. Mechanical KHASBAGE ANSHUMAN ANIL
17	MERIT PRIZE ON THE BASIS OF MERIT IN THE PRECEDING EXAMINATION HELD IN MAY-JUNE	T.Y.B.TECH. Electrical VARDAM MANDAR RAJAN
		T.Y.B.TECH. Civil LIMAYE PRASHANT SUYASH
		T.Y.B.TECH. Mechanical MOHD IRFAN MOHD ISMAIL
		B.TECH. Electrical PHONDKE SIDDHI RAMCHANDRA
		B.TECH. Civil ABHAY JAGAT SHAH
		B.TECH. Mechanical ACHAWAL MUKUL
18	MERIT PRIZE ON THE BASIS OF MERIT IN THE PRECEDING EXAMINATION HELD IN MAY-JUNE	M.TECH. (CIVIL)– CONSTRUCTION MANAGEMENT SHIRULE DEVYANI GOPAL
		M.TECH. (CIVIL)– STRUCTURAL ENGINEERING AWATE ROHAN JITENDRA
		M.TECH. (MECHANICAL) – THERMAL ENGINEERING SWATI SAGAR MANMATH
		M.TECH. (MECHANICAL) – MACHINE DESIGN DHONGADI HARSHAL NARENDRA
		M.TECH. (ELECTRICAL) – POWER ELECTRONICS & POWER SYSTEM BHATKAR ABHISHEK ATUL

Placement Report (Batch of 2023)

Sardar Patel College of Engineering (SPCE) is one of the premier engineering institutes in Mumbai, known for its excellent academic standards and top-notch placements. The institute offers undergraduate and postgraduate courses in various branches of engineering and technology and has a rich legacy of producing highly skilled engineers who are sought after by top companies.

The placement season for the batch of 2023 at SPCE began in the month of August 2022 and witnessed participation from over 75 companies across various sectors. The placement process was conducted in both online and offline modes, with companies conducting pre-placement talks, written tests, group discussions, and personal interviews.

The institute is proud to announce that the placement season has been a resounding success, with 75% of the eligible students being placed in top companies as of April 2023. The average package offered was Rs. 6 LPA, with the highest package being Rs. 11 LPA.

The following is a sector-wise breakdown of the placements:
Core Engineering: The core engineering sector continued to be the largest recruiter at SPCE and also witnessed a strong demand for SPCE students, with companies like Larsen & Toubro, Tata Motors, Schneider, Blue Star, Tata Power, Kalpataru Power, Lodha, Godrej Properties, etc. recruiting students for various roles. The average package offered in this sector was Rs. 6 LPA, with the highest package being Rs. 9 LPA.

Information Technology & Consulting: Consulting firms like GEP and OMP also recruited students from SPCE, offering them roles in areas like strategy consulting, risk advisory, and technology consulting. In the IT sector, TCS continued its collaboration with SPCE, offering the role of systems engineer. The average package offered in this sector was Rs. 8 LPA.

Finance: The finance sector saw a marginal increase in the number of recruiters this year, with companies like ICICI Bank, ICICI Securities, SBI General Insurance, and Axis Bank offering roles in areas like financial analysis and IT development. The average package offered in this sector was Rs. 7.5 LPA, with the highest package being Rs. 11 LPA.

Out of the students who were pursuing placements, 62% have already secured placements.

Overall, the placement season at SPCE has been a great success, with students receiving job offers from some of the best companies in India. The institute remains committed to providing the best education and career opportunities to its students and is confident of maintaining its strong placement record in the years to come.

Students' Achievements

Technical Achievements:

Name	Class	Achievements
Piyush Dhatrak & Saad Khan	B.Tech. Mechanical	Winner at ASHARE Mumbai Paper Presentation Competition (Chapter Level) Bronze Award at ASHRAE RAL Paper Presentation (Chapter Level)
Ishani Prabhudesai, Isha Likhite & Kripa Sethi	B.Tech. Mechanical	Best Paper Presentation Award in an International Conference titled "Environmental Sustainability (ICES-2023)" organized by VJTI, Mumbai.
Ishwar Nimbhore	T.Y. Civil	Won the silver award of INR 2,50,000 with his Team Waste2Wealth for developing W2W Energy, Fuel and Mobility Generation from Innovative Biogas Plant at "KPIT Sparkle 2023" First Prize at "National Level Web Application User Interface Design Competition" titled "LOREM IPSUM" organized under CEPHEUS 22 (Annual Technical Fest) of IIT Goa
Tanishq Kale	T.Y. Electrical	First Prize for best research paper presentation at International Conference titled "SPICON 22" organized by Sardar Patel College Of Engineering, Mumbai
Sejal Khade	S.Y. Civil	Second Prize in 'CAD Combat' Competition at "STHAPATYA'22" Event organized by CESA VJTI
Shubham Padwal, Vikas Kadam, Mayur Lambade & Sarvesh Koli	S.Y. Civil	Second Prize in 'Bridgemania' Competition at "STHAPATYA'22" Event organized by CESA VJTI
Prasad Naik, Yutika Kadoo, Vaishali Lagad, Rushikesh Patil & Atharva Kulkarni	S.Y. Civil	Third Prize in 'M3 -Miniature Model Making' Competition at "STHAPATYA'22" Event organized by CESA VJTI
Rajdeep Banerjee	S.Y. Electrical	Bronze Honour in International Astronomy and Astrophysics Challenge (IAAC) 2022 Bronze Honour in International Youth Math Challenge (IYMC) 2022
Divya Vijay Dhas	F.Y. Electrical	Awarded by a Scholarship Program by Technip Energies, which is given to only 100 girls all over India

Non-Technical Achievements:

Name	Class	Achievements
Vedant Khandekar & Pranav More	T.Y. Civil & T.Y.Electrical	Winner in the Instrumental Duet Competition, Sargam- the musical event at the Annual Techno-Cultural Fest of SPIT, "OCULUS"
Meghna Nilange	T.Y. Civil	Silver Medal in Mumbai University Zone-II Inter-Collegiate Boxing Tournament (W) Qualified for All india level University Boxing Tournament
Tejendra Patil	T.Y. Electrical	Runner-Up in Table Tennis Singles Competition at the Annual Sports Fest of Vidyavardhini College of Engineering and Technology, "AVAHAN" Second Place in Table Tennis Singles at the Annual Intercollege Sports Fest of Sardar Patel Institute of Technology, "SPOORTHI"
Tejas Vaishnav	T.Y. Mechanical	Invited as 'Chairperson' of United Nations Human Right Council Committee at "Diplomat Model United Nations"
Pratik Bhosale	T.Y. Mechanical	Winner in Table Tennis Singles at the Annual Intercollege Sports Fest of Sardar Patel Institute of Technology, "SPOORTHI"
Devhuti Matte	F.Y. Civil	Gold Medal in Table Tennis Women's Singles at the Annual Intercollege Sports Fest of Sardar Patel Institute of Technology, "SPOORTHI"
Riva Mayekar & Aarya Kulkarni	F.Y. Mechanical	Runner-Ups in English Debate Competition, Voice it Out at the Annual Techno-Cultural Fest of SPCE, "SPHINX"
Riva Mayekar	F.Y. Mechanical	Runner-Up in Mock Interview Competition at the Annual Techno-Cultural Fest of SPCE, "SPHINX"
SPCE Rugby Boys Team	--	Third Prize in Mumbai University Zone-II Inter-Collegiate Rugby Competition
SPCE Rugby Girls Team	--	Third Prize in Mumbai University Zone-II Inter-Collegiate Rugby Competition

INTERVIEW

with

Ms. Srinidhi Balasubramanian

Srinidhi Balasubramanian completed her bachelors in Civil Engineering from Sardar Patel College of Engineering back in 2008. Further, she completed her masters from IIT Bombay and her PhD from University of Illinois Urbana-Champaign in Environmental Engineering. Currently she holds a faculty position at IIT Bombay. In this brief interview, she reminisces and shares with the readers her iridescent journey.

1. What inspired you to pursue Civil Engineering and subsequently Environmental Engineering?

I grew up in Thane and then Mumbai, and like every resident, I got a front-row seat to the situation of worsening air quality. So, I knew in school that was the field I wanted to work in. I asked around and found that most environmental courses were housed in civil engineering, hence the decision to pursue civil engineering. The transition to environmental engineering was a natural process.

2. Could you describe your journey/experience at SPCE?

I sum it up in one word: Exploration. I came to SPCE wanting to study civil engineering, and luckily, we had really good instructors for most courses. I also now have a SPCE family, close friends not just from my department, whose enthusiastic support has sustained me through many highs and lows. I was also an active participant in many cultural events, which had a big impact on my time management and leadership skills.

3. When did you start preparing for GATE?

I didn't actively prepare for GATE. I know a lot of my colleagues who spent 6-12 months actively studying for GATE. It was by happenstance that I decided to appear for the exam, so in the two weeks leading up to the exams, I read through the notes I had compiled in class and during the self-study time. I did get a good score, but I would not recommend this approach to students who wished to join IITs or IISc after their undergraduate degree.

4. How tough was it to manage BE degree and GATE studied together?

It was not tough because I didn't really "prepare" until two weeks before the exam date. What helped was my consistency during each semester. I really enjoyed most courses, so I was usually diligent about my attendance and study of the course material.

5. How was your experience in Research in the US? How does research differ in India and US?

If my time in SPCE was about exploration, then my time in the US was all about growth and getting comfortable in my own skin. I had the privilege of being mentored by two exceptional PHD supervisors and being surrounded by amazingly talented peers whose work etiquette and ability to juggle work and life were a wonder to watch. I felt like "a small fish in a big pond," so there were many struggles. My PhD was unusually long (7.5 years), but I wouldn't trade my experience for anything else. In hindsight, each day was meaningful and helped me grow both as a researcher and as a person.

At its core, research everywhere is about pushing boundaries and creating something new. At IIT Bombay, I enjoyed my M Tech research; the concept of research was new to me then, and I really enjoyed collecting field data and running competition models. But at the University of Illinois, the research game was elevated on many levels. First off, the expectations are for more rigorous The course work was intensive, and the

central theme of both the courses and the research was independent inquiry. No one offers a to-do list; I had to quickly learn to ask and answer questions on my own. Many advisors were there not to offer answers but really to check and critique my thought process. The access to resources is broader, with more high-tech equipment, a wider range of journals, and access to faculty trained in a truly diverse range of subjects and skills. Not to mention, the peers provided an intellectual environment to work in where curiosity and questions were actively supported.

6. What factors did you consider while choosing an institution for graduate studies and PhD?

My answer here is not what I did but what I now recommend.

Start with the question: What is your grand goal? (PS: getting a job as a new citizen is an outcome, not a goal), and then explain how the degree feeds into the goal. Once you have narrowed your field, shop around for faculty profiles, both in India and abroad. This will help first identify what kind of training is typical for different professions and positions, and here identity is a more focused field to then shortlist for your study. Faculty profiles matter more than university coaching. Faculty with active impending grants are more likely to help design a productive PhD. Factors like publication records and participation in academic outreach teams matter a lot.

I also considered location. Big cities can be expensive, and small campus towns might feel isolating. Seasons, especially winter, can be challenging. So cost and location should be decision factors.

7. How did your masters help in you PhD application?

One by one, by talking to faculty, I was able to identify specific fields that interested me- this was pretty much overnight, as senior faculty had so much to share. It also helped me shorten my list of what I didn't want to do. Second, my research study helped me identify my strengths and skillsets. Notably, 3 years after my M.Tech., my continuing close association with IIT Bombay helped me bag the "Faculty for the Future" fellowship, which gave me complete academic and financial freedom to chart my own course for my PhD.

8. How did you identify your niche in the vast field of civil and allied fields of engineering?

It was an easy decision and one that, over time, has magically evolved. I was always fascinated by the atmosphere and air quality, and I love all the environmental engineering electives at SPCE. One experience was challenging a small PM counter to study personal exposure. That led me to study indoor air quality, and I eventually found my way into air quality modelling. It was the result of a series of opportunities and informed decision-making.

9. Could you tell us about your experience as a professor at IIT Bombay?

It's been a full-circle kind of experience. I am extremely lucky to work with a talented and motivated bunch of students in three overlapping research areas: food and agricultural systems, air quality modelling, and indoor air quality. Each of these areas captures a district of my research training. I am also privileged to work with and learn from my colleagues, who have a diverse range of training and expertise in both research and teaching. A collaborative environment is key to productive inquiry, and I am lucky to be back at IIT Bombay, which provides such an environment. Of course, the campus is green and beautiful, which helps keep the motivation up.

10. What would be your message to the current undergraduate students?

It takes a village to learn and grow. These are the years for you to experiment, learn, and expand your knowledge and perspectives. So don't for yourself in just to get "good grades". You should be networking, building nurturing friendships, and actively seeking professional help from faculty in developing a rounded profile. Also, good verbal and written communication matters (and no Chat GPT will ever replace well-developed, independent outcomes that you can develop). So spend your time smartly and diligently, as these really are the years where you will truly develop a unique personality.

INTERVIEW

with

Mr. Avadhoot Jathar

Mr. Avadhoot Jathar; an alumi of IIM Banglore and our alma matter Sardar Pater College of Engineering is a master of all trades, be it research, economical analysis , teaching or consumer behaviour/marketing consultancy. He has experience to suffice for a life time. Here is a conversation to shed light on the same and give the readers a glimpse of his insights.

1. How did you discover your inclination towards data science and analysis which was a different course from what you did before?

I did not plan to become a data scientist. I have always liked mathematics, and I did reasonably well with mathematics-oriented engineering subjects. I like studying, and I enrolled in a PhD program at IIM Bangalore in quantitative methods, which is a discipline in management that focuses on rigorous training in mathematical techniques (read statistics and operations research). The PhD program then in the IIM system was an integrated program with a good deal of first two years with the MBA. When I enrolled there, the idea was to get rigorous training for a research career, either in corporate America or in academia. I got to study statistics, econometrics, some machine learning, and operations research very well during my rather long tenure as a PhD student at IIM Bangalore.

As it turned out, as I graduated in 2014, career-wise, analytics was an extremely lucrative field, and by 2016, even broader data science was gathering great pace in terms of application advancements. Because of my specialist training, i.e., my PhD, I took up a more specialist role (as opposed to a purely client-front end, sales-oriented, or delivery manager-oriented role), and it has come to be called Data Scientist nowadays.

There is in fact some continuity to what I studied in my PhD, although in a very different context from my Electrical Engineering degree.

2. Could you tell us about your experience after you graduated SPCE? How was the work culture, academic environment, peer group different in a management college than that of an engineering college?

My career began as a software engineer at TCS through campus placements. That was a different setup from the core subjects I studied at SPCE, yet we had courses like Object-Oriented Analysis and Design and Project Management, which I got to see in action firsthand in my first job.

Peer group at IIM Bangalore was very different from that in SPCE—peer group, especially in the MBA program, was fiercely competitive. Everyone around was accomplished, and it took a couple of terms to grasp a reasonable survival in the MBA program. I did also get to meet and interact with some really passionate folks about a few specific subjects in both the MBA and PhD programs—that subject-specific passion I thought was absolutely missing at scale in the engineering college.

Perhaps this is not an inference on the quality of students or preprogramme, but more so, the SPCE degree is the first degree, so as sophomore students we barely know real-world subject applications. In the business schools, my competitive peers were very passionate about understanding or thinking about finance or marketing, or some even about public policy. The financial crash of 2008, the Euro crisis, and the e-commerce explosion were happening before my eyes while I was a student at IIM Bangalore. This provided a great deal of food for thought as a student. That well-rounded perspective is difficult to obtain in a bachelor's degree program any day.

3. Could you tell us more about what you do currently and about your field of work?

I work as a senior data scientist at a firm called Kantar. Kantar is a leading data and market research firm, and I work with the Data Science and Innovation team at Kantar. Our firm helps marketers (companies that own brands, for example, Unilever, Coca-Cola, Proctor & Gamble, AT&T, and the likes) make data-driven

marketing decisions. We help them with insights for their product pricing, optimizing their marketing spends, or improving their branding propositions. We use multiple types of data: survey data (that our teams conduct), panel datasets where we track consumers, social data, which captures the ways customers interact with brands, as well as custom client data such as marketing spends and pricing. My field is broadly analytics and data science, though my industry is called market research.

As a data scientist, my role is to identify and implement useful ML and AI algorithms for the required use cases. I also help develop solutions that are either provided as consulting services to our clients or as a software product that is integrated on our firm's platform.

4. You've been an active part of a lot of committees at SPCE. How did that and the wisdom gained in your graduating years help you?

It did help me in many ways—firstly, I did not fear public speaking ever thereafter. It set a belief in taking initiative: if you can apply your mind and effort to do something well, you should go ahead and do it yourself. The work for those committees makes you conscious of anticipating frictions in a team, interpersonal behaviour issues, or the best ways to get work done from diverse people. At a personal level, it helps build the habit of being engaged with diverse types of work, so those habits are very beneficial for me as I straddle my corporate career as well as some academic teaching and research I do in my free time.

5. Engineering, research and consultancy-you've done it all! Was this a planned professional trajectory or did you just go with the flow?

I won't say I have done engineering—if you call software engineering, yes, I have done it some bit.

It was planned to an extent I wanted a research kind of career and that is something I do, applied research as a data scientist. Data scientist was an unknown term when I graduated with my bachelor's degree, so I had not consciously planned to become one, as some people aspire to become IAS officers and the like. However, a PhD program generally prepares you for a research career, so when I enrolled there, I knew I was not going after a people manager or delivery manager-like generalist role. I am in a research-oriented role that requires using data and methods or algorithms —which, incidentally, happens to be a sought-after field right now.

6. What were the setbacks that you faced while embarking the journey of your professional life? How did you cope up with the same?

I don't think I have had setbacks like starting a business that failed or choosing a job or education that was not intellectually rewarding. I don't think I have had a particularly risky career as yet, where I have taken on a role bigger than my own.

However, one thing to bear in mind is that your choice of education and the first few companies in your career both make and constrain your career. Even though I am a data scientist, I do not sit in the league of the best computer science-focused data scientists because I did not have rigorous computer science training. In every knowledge-oriented role (consultants, data scientists), one tries to learn and stay up to date with current advances; that is something I try as well.

7. What would you advise people who plan to pursue your line of work?

I work in data science, and I would suggest that they study mathematics very thoroughly; it might appear like a dry subject for engineering students who want to be hands-on with motors or robotics. But mathematics is most fundamental in shaping our thinking and the way we solve problems in data science.

Secondly, I would recommend doing a lot of first-principles coding yourself for your subjects like signals, control systems, and numerical methods. This helps build up our problem-solving thinking block by block, which is also how most engineering systems are built.

Finally, I would suggest they talk to not just the immediate seniors, but also individuals some years senior to you, to get a perspective on the field, so they could make an informed decision.

8. What fond memories do you recall when you look back at our college?

I shall skip this question for any specifics. All of us have spent our formative years at SPCE, I have many fond memories of being a class rep, lectures, electronics practical sessions and many events or committees I had been part of. I thank you for rekindling all those memories as I respond to your questions.

INTERVIEW

with

Mr. Asif Hasan

Asif Hasan is currently a PhD researcher at TU Delft. He completed his bachelors in Mechanical Engineering in 2017 from Sardar Patel College of Engineering and consequently his masters in Energy and Process Technology from TU Delft. He created history by bagging AIR 1 in Gate ME Stream(2017). In this interview we will have a brief glimpse of his journey.

1. How did you identify your niche in the vast field of mechanical and allied engineering fields? How has the knowledge of mechanical engineering helped you in making the life that you live now?

I liked fluids and thermodynamics from a very early stage, and the most important role was played by the reference books I chose for them. This is how I knew what specification of mechanical engineering I wanted to go into. We all know fluids and heat transfer are a very vast domain of science and engineering. So the specific field that I am in now became clear only during my master's, especially while choosing the thesis topic. I liked challenging topics, and turbulence is one of the most challenging fields, devoid of analytical solutions and thus dependent on numerical and experimental knowledge. The knowledge I gained from SPCE Mechanical Engineering has helped me in different stages of my master's journey. In SPCE, I liked to study reputed authors, and this was a great help when I came to the Netherlands. The culture in SPCE, especially under a few professors, was to challenge the conventional approach and ask questions even about the most reputed books and then try to solve those questions. In this journey, the concepts get more clear, which helps in the long run.

2. Could you share your experience after graduating from SPCE? How is the work culture, academic environment, and peer group out there?

I worked at IOCL for 2 years. The work culture there was not as bad as people perceive PSUs to be. I liked the team I was working with. It was less about mechanical engineering knowledge and more about general management skills. It was an overall decent experience. However, I wanted to work in research, so I decided to leave IOCL and go to the Netherlands for my Masters, and eventually ended up doing the PhD. PhD in the Netherlands is different (I think) than in India or the US, as here it is not structured as a course but more as professional research. You get the rights of an employee and also get leave like in any job. From day 1, you start engaging in direct research, which is funded by industry or the government. The colleagues here are very open to contradicting opinions, and there is little hierarchy-based treatment. There is also a little competitive environment here, and people like to tackle problems their way and at their own speed.

3. What were the hardships faced by you while preparing for the GATE exam? Could you impart some advice to your fellow juniors?

The main hardship was managing time. I would suggest starting early (in the second year) and then preparing simultaneously for Btech and GATE as the syllabus is similar. I would advise making handwritten, personalized notes that also summarized your understanding of the concepts. This helps a lot in both recalling a concept at the end and also during revisions. Another piece of advice would be to give as many full-length tests as possible. I did not find going to coaching very necessary, and thus I prepared on my own with some help from seniors. I enrolled in Ace and Made Easy for their test-series programme.

4. Even after topping the Gate Examination, why did you choose to pursue a master's abroad?

I liked the course in the Netherlands, and the language here is predominantly English. I also opted for IISc, but their research domains did not align with my interests. I found their research very theoretical (I may be wrong here), and I wanted to do research that could have direct engineering applications.

5. How was the experience working at the Indian Oil Corp. Limited? Can you give a closer insight into the workspace environment?

The experience was good. It is hard to get leaves, and the job requires your presence. But IOCL is huge, and I was in the downstream division. The upstream division might be a different experience.

6. What activities and courses did you choose to pursue along with your undergrad and why? Also, how did your work experience help in your Masters application?

To be honest, I did not do any extracurricular activities in my Btech, due to the time crunch. I would advise students to set their priorities straight and then work to build a strong resume in that direction. I am not sure if my work experience helped me in my application; however, I did mention the things I learned in my IOCL tenure related to fluids and thermal engineering (even though they were not very advanced) to show some relevance to the course that I was applying for.

7. You are pursuing your Ph.D. at TU Delft, one of the world's leading research universities. Could you talk about the student life there and the research that you are currently working on?

PhD here is different from being a student, as I described in my previous answer. However, one can consider it a master's thesis on steroids; It lasts for 4 years, where year 1 is devoted to literature study and the following years are spent performing research and publishing papers. I am working on the fundamentals of compressible wall-bounded turbulence. In simple terms, I work on boundary layer flows, but they are at high Reynolds numbers and high Mach numbers.

8. How did you decide that 'THE TURBULENCE IN NON-IDEAL FLUIDS' was the right topic to choose for your Masters?

I only wanted to do something challenging. As I described above, turbulence is one of the challenging topics where many complicated processes are connected.

9. What are some things you wish you had known in your twenties? What would be your message to the current undergrad students?

I am still in my twenties; I am not sure if there is such a thing. I would say to try to figure out which direction interests you the most. If you cannot, then try different things and let it flow; when the time is right, you will realize it.
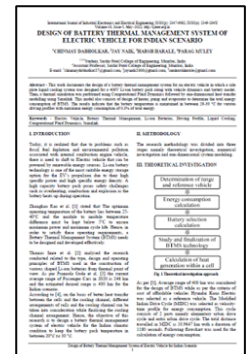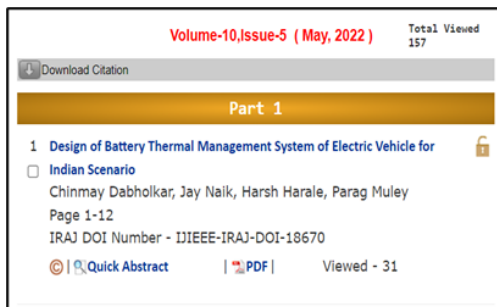
TESA

## Thermal Engineering Student's Association


Students Achievements

Research paper 'Battery thermal management system of electric vehicle for Indian scenario' by Jay Naik, Chinmay Dabholkar and Harsh Harale published in International Journal of Industrial Electronics & Electrical Engineering (IJIEEE), Volume 5, Issue 10, May 2022

Research paper 'Thermodynamic analysis of LNG distribution system' by Madan Narayanan T.Y. (Mech.) presented in 28th National Symposium on Cryogenics and Superconductivity (NSCS-28), 18-21 October 2022, IIT Kharagpur. Paper will be published in Indian Journal of Cryogenics, Vol. 47.
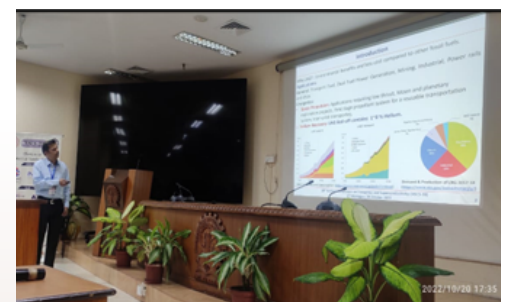
Research paper 'Condition monitoring-An emerging predictive maintenance technique in continuous process plants' presented by Tanishq Kale T.Y. (Mech.) in international conference Industry 4.0 - Nascent Technologies and Sustainability for Make in India Initiative (SPICON 2022), 22-23 Dec.2022, SPCE&SPIT, Mumbai. Paper is awarded Rank #1 in Manufacturing domain of Mechanical Engineering Track and will be published in IEEE Xplore.
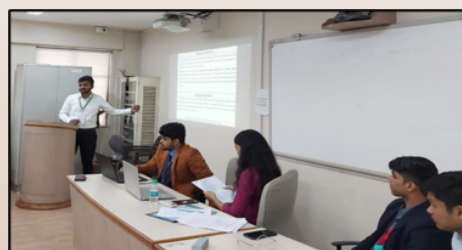
CEA

Civil Engineering Association

The Civil Engineering Association (CEA) is a committee consisting of third-year students, supported by a coordinator team from the second-year student body and faculty members of the Civil Engineering Department.

CEA CUP 2023

They work with a vision for the welfare of students. The committee works hard to fulfill the co-curricular requirements of students throughout their academic careers with the help of the CEA committee advisor, ex-officio Prof. S. J. Kumbhar, and under the guidance of Dr. M. M. Murudi, Head of Department.

It involves organizing various activities which enhance the knowledge of students and also improve technical, communication, and managerial skills, apart from the curriculum and academics of the college.

MEMBERS OF CEA COMMITTEE 2022-23 :

- Vaibhav Kurale
  (General Secretary)

- Mangesh Deshmane
  (Site Visit & Creative Head)

- Rajashri Patil
  (Site Visit & Creative Head)

- Bhushan Rokade
  (Social Event Head)

- Samiksha Mali
  (Social Event Head)

- Manjeet Pawar
  (Sports Secretary)

- Divyansh Singh
  (Sports Secretary)

WINTER TRIP 2023
(10 th Jan - 19th Jan 2023)

EESA

Electrical Engineering Student's Association

Electrical Engineering Student's Engineering Association (EESA) is a committee consisting of third-year students, supported by associates from the second-year students, and supported by faculty members of the Electrical Engineering Department. We work with a vision for the betterment of students. The committee believes in the fulfilment of co-curricular (technical and non-technical) activities for students throughout their academic careers with the help of EESA committee advisors Prof. Vishal Dake and Prof. Rahul Chavan, under the guidance of Dr. Sangeeta Daingade, Head of Department.

OUR MISSION

- To carry out Technical as well as Non-Technical Activities for the Electrical Engineering Students.

EESA COMMITTE E 2022-23

- Ajay Mane (General Secretary)
- Satwik Mehta, Yashaswee Jadhav, Aaditya Shah (Technical Secretary)
- Anushri Belurkar (Non Technical Secretary)
- Jivan Bayaskar, Saurab Gawandre (Magazine Secretary)
- Aniket Pate, Samrudhhi Ghule, Vishakha Kharade (Sports Secretary)

EVENTS HELD BY EESA

- MATLAB Workshop
- Calculator Workshop
- SPCE CUP
- EESA CUP
- Kohoj Trek
- Debates
- Industrial Visit
- Meme Competition
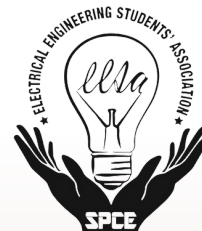
MESA
Mechanical Engineering Students' Association

Mechanical Engineering Students' Association (MESA) is one of the most active student bodies in the Sardar Patel College of Engineering and comprises of all the students and faculty members of the mechanical engineering department. The MESA committee works hard for the holistic growth of its students. It thrives to fulfil the co-curricular requirements of students with the help of member faculties and under the guidance of Dr. Megha Janbandhu (Faculty Head, MESA), Prof. Sachin Vankar (Faculty Advisor, MESA), and Dr. Ram Maurya (Head of the Department, Mechanical). The committee strikes an even balance between workshops, seminars, and technical and industrial interactions, with fun and interactive activities. MESA takes on many initiatives that prepare mechanical students of all years for future challenges. The department newsletter also sees significant contributions from MESA.

MESA Committee 2022-23
1. Piyush Dhatrak – Committee Advisor
2. Madan Narayanan – General Secretary.
3. Tejas Vaishnav – Industry Interaction Secretary
4. Suraj Swami – Cultural and Social Secretary
5. Mansavi Mahadik - Cultural and Social Secretary
6. Shalmali Naitam – Magazine Secretary
7. Sakshi Thakur – Ladies Representative
8. Sarvesh Jadhav – Financial Secretary
9. Ayush Toshniwal - Financial Secretary
10. Jash Saraiya – Second-Year Coordinator
11. Aryan Shah – Second-Year Coordinator
12. Harsh Kabra – Second-Year Coordinator

Objectives of MESA
- To promote interaction between academia and industry by providing industrial visits, special lectures, and facilities for industry training.
- Promoting the interest of students in various technical areas of mechanical engineering.
- To bring about the technical development of students by organising seminars, workshops, and other activities.
- To develop their extracurricular activities by providing them with a platform to showcase and develop their talents.
- To improve the network and interaction of students with the mechanical community outside the college.

Events Completed in 2022-23
1. Industrial Visit to the Institute of Design of Electrical Measuring Instruments (IDEMI), Chunabhatti.
2. Expert Lecture on '3D Printing Technologies' by Mr. Mayur Warudkar.
3. 'Khushiyon ki Diwali'– Poster and Reel making competition during Diwali 2022.
4. SPCE Cup – College Sports event organized by the students' association of all departments.
5. Expert Lecture on "Technical Paper Writing" by Dr. Ajaz Ahmed.
6. "Certified AutoCAD Workshop" for F.Y. B.Tech. Students.
7. 10 day industrial tour to Kullu, Manali, and Chandigarh.
8. Industrial Visit to Baba Atomic Research Centre (BARC), Anushakti Nagar, Mumbai.

SPCE RACING

SPCE Racing Electric , the Formula Student Team of Sardar Patel College of Engineering participated this year in Formula Bharat 2023, the Indian Formula Student Edition of the international competition in the Electric Vehicle Category with Voltron, the team's first electric prototype namely 'Voltron' is a result of cumulative efforts of the past three seasons after the last stint of the team in the Combustion Vehicle Category, back in 2020. This first EV prototype was released due to the tremendous efforts of the team which was made up of 30 students who worked tirelessly over the past year to make this dream come true. They were backed by the college, the faculty and the industry sponsors who believed in the vision of the club.

Formula Bharat (FB) is a part of Formula Student competitions held globally in the UK, Austria, Germany and more. The event witnesses over 80 student-run teams proving their mettle in design methodology, manufacturing feasibility and business mindset along with the dynamic performance of the car for over five days.

For the 2023 season, the manufacturing started in May 2022 after design finalisation. The manufacturing phase posed various challenges as all the team members were novice in that area. But the team carried on, learned and did its very best. There were various stages of the competition before the actual on field events at Kari Motor Speedway in January in the form of various qualifying events like the quiz, report submissions and presentations.

The competition not only tested the engineering prowess of the team but also patience, perseverance and presence of mind. A lot was learnt and the team is filled with vigour as it will begin preparation now for the next season of Formula Bharat backed by various feedbacks and new food for thought.

SPCE Racing bagged the following result at Formula Bharat 2023:
Overall
AIR 6
Engineering Design Event
AIR 3
Concept Goal Management Report
AIR 2
Cost and Manufacturing Event
AIR 7

S.P.A.R.K.

Sardar Patel Automation and Robotics K'lub

SPARK, The Sardar Patel College of Engineering's Robotics K'lub provides a platform for students from various backgrounds to gain practical knowledge regarding automation and robotics through exciting and challenging competitions such as ABU ROBOCON,IIT Techfest, VJTI Technovanza, etc. Besides making serious endeavors to stimulate interest in robotics among the students of the institute and spread knowledge on Robotics and its diverse applications, it also stands by the motto **'One Team, One dream'**. It is this exemplary virtue that has bound the club and helped it to grow to its present potential.

The club has been participating in various national and inter collegiate robotics events over the years and delivering consistent results. In 2022 too, the club participated at DD ROBOCON 2022, the premier robotics competition in India, and made it to the top 25 at stage 3 of the competition.

At Techfest 2022 the team secured a mesmerizing position in Mumbai's zonal competition. During the academic year 2022 the team also participated in the Mumbaitics Challenge (VRC 10.0) at Technovanza 2022-23 where the team secured 1st and 2nd Runner up positions and kept the winning streak since 2015 intact.

The team received an excellent score of 100/100 in stage 1 and as of DD Robocon 2023, has qualified for stage 2. SPCE ROBOCON aims to contribute to the development of robotics, further participation in such events, and fetch laurels to the college every year.

The jaws of saber-toothed cats could be opened to a 90-degree angle.

The Tecopa pupfish had the ability to live in water temperatures of more than 100 degrees Fahrenheit.

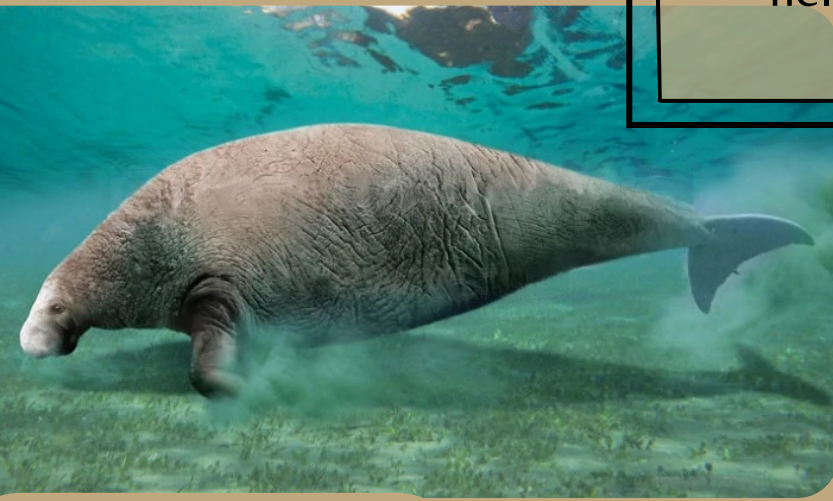" Elephant birds were enormous, flightless creatures that weighed over 1,000 pounds "

Charles Darwin accurately predicted the downfall of the Falkland Islands wolf.

NSERVATION

The last dusky seaside sparrow died on Discovery island, a nature reserve owned by Disney.

The Pyrenean Ibex was briefly brought back from extinction.

Some woolly mammoths became trapped in ice, preserving their bodies

SPCE W.A.V.E.
Wing of Aerial Vehicle Engineers

The academic year 2022-23 started off with SPCE W.A.V.E. (Wing of Aerial Vehicle Engineers) during the final phase of preparation for the SAE Aero Design Challenge 2022, a national-level Aero-Modelling competition. The competition was scheduled to be held from 1-3 September at SRM University in Chennai and the club participated with two teams, AeroRangers and AeroTrails.

Success at the competition depends on several factors, including the submission of a detailed Design Report, a Technical Inspection to ensure the aircraft is within the specified dimensional constraints, a well-delivered Technical Presentation and finally a successful flight round, with maximum payload, which is the mission objective.

The robustness and efficiency of our designs and efforts over a period of 10 months finally paid off and we are elated to announce that we were able to secure **AIR 2 for our Technical Presentation and AIR 3 for Overall Performance**, out of a total of 82 teams participating from all over the nation.

The club was awarded with a cash prize of Rs20,000 for its excellent overall performance. The club is proud to have shone among the elite teams of the country and to have brought laurels to our esteemed college.

#TogetherWeFly

Soon thereafter, our preparations began for the upcoming edition of the competition. Once again, two teams, Spartans and AeroMaestros, comprising 2nd and 3rd year students will be participating in the Regular Class of the competition, which will be held in July 2023.

The teams attended the SAE workshop which was held at Rajalakshmi Engineering College, Chennai on the 25th and 26th of November 2023 and we were able to learn a lot. Miniature models were fabricated utilizing Coroplast and Aluminium, and these models flew successfully giving us the energy and confidence to build regular class models.

Currently, the club has completed its Design Phase and will soon commence the fabrication of prototypes for the competition. Prototypes will be tested and soon we shall be ready with our final models to fly high in SAE DDC 2023. The vision of the club is to represent India on the International Level. The sky has no limits and SPCE W.A.V.E. shall continue working and flying higher so that we can achieve success for our members and college.

The club is thankful to our faculty advisor, Dr R. S. Maurya, who has been instrumental in our success, by providing us with all kinds of support throughout our journey and has motivated us when times were tough.

ELITE CODER'S CLUB

Elite Coders Club (ECC) is a technical club at Sardar Patel College of Engineering, comprising students who have a passion for coding and problem-solving. The committee of Elite Coders Club consists of students and faculty members who work hard to develop the skills of the student members by arranging boot camps, guest lectures from industry experts, alumni talks, and providing internship opportunities related to the programming and software sector. The committee runs under the able guidance of Prof. Ushma Shah (Club Mentor, ECC), Dr. Sangeeta Daingade (Head of Department, Electrical), and other faculty members.

Objectives of the Club:
 • To remove the irrational fear of coding among students.
 • Providing them with a platform to share and discuss their ideas with like-minded people.
 • To improve their command of the basics so that he/she will be able to easily adjust in any domain and perform well in it.
 • Providing internship opportunities in the field of IT and computer science.

The Vision of the Club
• To win the prestigious ICPC World Finals.
 The International Collegiate Programming Contest, known as the ICPC, is an annual multi-tiered programming competition among universities around the world. Nearly 60,000 students participate every year from 110 countries around the globe. It is considered the Olympics of coding.

Members of Elite Coders Club Committee 2022-23

- Siddharth Jha – B Tech Electrical – Chairperson
- Mandar Vardam – B Tech Electrical – Secretary
- Madan Narayanan – TY Mechanical – Event Lead
- Siddhesh Jadhav – TY Electrical – PR Head

Events Organized in 2022-23

• Certified Workshop on "Basics of C++" for all first-year students.
• ECC offered students paid internships at SPTBI, Mumbai.
• Bootcamp for Web Development and a project for developing the club Webpage.

IIIE-SPCE Student Chapter

IIIE-SPCE Student Chapter, since its formation on 13th January 2020 has strived hard to create excellence in all the best possible ways. IIIE-SPCE has in the past collaborated with esteemed organisations like SAEINDIA WS, ARAI, Elite Consulting Engineers, FELA, NIPAM, and the Institution of Engineers. Dr. Santosh Rane, Former Dean Academics, SPCE is the faculty advisor of the IIIE SPCE Student Chapter. He works relentlessly for the development of the students as well as the institute and puts in a lot of effort to make every program under the IIIE-SPCE Student Chapter successful. IIIE-SPCE Student Chapter has always deployed "Think Big Strategy!" and further proved the motto with perfect execution. Few Programs, including the transfer of knowledge in terms of technology, not only had a theoretical background but also the Student Chapter, which ensured that things were practically done. The COVID pandemic did not stop the student chapter from transferring practical knowledge to the audience/ participants.

No one was restricted from acquiring knowledge and skills through programs organized by the student chapter. Everyone has access to all the sessions through YouTube, whenever and wherever they desire. Thus, the Student Chapter has made it sure that the sessions not only during the workshop tenure but for

lifetime would be available to everyone. Ms. Gayatri Patil (Chairperson 2022) elected Ms. Sadhvi Chaubey as Chairperson of the year 2023. Under her leadership, the IIIE SPCE Student Chapter has conducted 2 national-level webinars on diverse fields, along with 4 national-level FDPs and 1 international-level conference. The IIIE SPCE Student Chapter also played a vital role in organizing the Alumni Speaks Program. The Programs are listed below:

National Level Webinar on Demystifying Blockchain
National Level FDP on Analysis of engineering system using CREO - 1
Alumni Speaks Program
National Level FDP on Analysis of engineering system using CREO - 2
Online National Level one week Faculty Development Program on "Advances in Electric Vehicle Industry"
Sardar Patel International Conference on "Industry 4.0 – Nascent Technologies and Sustainability for 'Make in India' Initiative"
National Level Webinar on "Intellectual Property Rights (IPR) Awareness program-NIPAM 2.0"
"National level Faculty Development Programme on Innovation, Research and IPR - Journey Towards Excellence"

The greatest threat to our planet is the belief that someone else will save it."
- Robert Swan

The Sardar Patel Sustainability and Green Initiative Chapter (SPSGIC) continued to promote sustainability and green initiatives throughout the year 2022-23 under the guidance of Chief Coordinator of the chapter, Dr. Hansa Jeswani and faculty coordinators Dr. Swati Lavand, Dr. Reshma Raskar-Phule and Mr. Haseen Shaikh. We believe that it is our collective responsibility to work towards a better future for the planet, and our club was committed to making a difference in our local community.

One of our main initiatives was to encourage sustainable practices in our college. We put instructions in every class to switch off lights and fans when not in use to conserve energy. We also put instructions in the washrooms to maintain hygiene and proper cleanliness to reduce water waste.

In collaboration with other clubs, we participated in two major clean-up drives. The first was a beach clean-up at Versova on 14th January 2023, where we collected and disposed off litter that had been left behind. The second was a clean-up at Sanjay Gandhi National Park on 21st January 2023 in tie-up with the Student council. These drives helped to promote awareness of environmental issues and the importance of keeping our surroundings clean.

We also set up an e-waste bin to collect electronics, such as old cell phones, laptops, and other gadgets. Our club organized a seminar on waste management, focusing on e-waste in particular on 28th Feb 2023. We invited Mrs. Garima Jindal as a guest speaker who provided valuable insights on e-waste management. With her help, we had also conducted an e-waste drive in our college in April 2022, where we collected and disposed off electronic waste in a safe and eco-friendly manner.

Our club also used social media platforms to spread awareness about sustainability and environmental issues. We regularly post updates, tips, and information on our social media pages to educate our followers on how to adopt sustainable practices in their daily lives.

In conclusion, the Sardar Patel Sustainability and Green Chapter Initiative(SPSGIC) made a significant progress in promoting sustainable practices and raising awareness about environmental issues in the year 2022-23. We believe that our efforts have contributed to create a more sustainable future, and we hope to continue our work in the coming years.

The Internship Cell

Alumni Discussion Series #22: Placement Preparation & Strategy–
Mayank Bhalerao: Research Scholar- University of Oklahoma | Deputy Manager- Axis Bank

Our mission is to inspire and empower every student to go beyond the confines of traditional classroom learning, equipping them with the skills and knowledge to become outstanding 'Engineers of the Future'.

Dr. Santosh Rane serves as the Founder of The Internship Cell & Dr. Rahul T. Dahatonde serves as a faculty advisor for all the activities of The Internship Cell in the SPCE. Sejal Dangi and Sharada Gavade envisioned the Internship Cell in March 2020 - in their final year of studies at the Mechanical Engineering Department of Sardar Patel College of Engineering. Having completed five internships between the two of them - within the academic and the industrial sector - they appreciated the role played by internships in developing a student's overall profile. They brainstormed an action plan that will not only make fellow SPCEians aware of the value of internships but also assist them in acquiring internships at national and international levels. Guided by the mission to set SPCEians at par with engineers graduating from other nationally acclaimed universities and with enthusiastic support from students at SPCE, they started The Internship Cell. The Internship Cell currently constitutes of 18 dedicated committee members which is led by Mr. Aryan Pawar from Third Year B.Tech. Electrical Engineering Department & managed by Harsh Habbu from Third Year B.Tech. Mechanical Engineering Department.

Remarkable Activities by The Internship Cell:

• Developed a dynamic database of about 100+ national and international internships.

• Guided about 800+ students on Resume, CV, Networking, LinkedIn, Cold Emailing and Profile building in just a span of just 3 years.

• Weekly sharing of Career Resources articles covering all aspects of student life - ranging from writing cold-emails to managing your finances, preparing for competitive exams & much more via LinkedIn & Instagram Page.

• Developed a comprehensive guide to finding undergrad internships, after spending approximately a year on curating articles & resources to help students find internships.

• Conducted 22+ Bi-Monthly Webinars featuring SPCE Alumni to guide students on placement procedures of different companies, applying for master's, PHd preparations, Career in R&D, GATE preparations (IIT & IISc), MBA-GRE-GMAT-TOEFL Preparations, etc.

• Successfully helped 16+ students in getting them an internship & with onboarding process with firms such as SeamBooks & The Mechanical Post.

• Developed the official website of The Internship Cell (https://www.spceinternshipcell.in) so students can take advantage of all career resources, internship guides, and learn from the experiences of industry professionals through this one platform!

Feedback from Ankur Tambe, a T.Y. Electrical Engineering Department student who landed an internship at NIT Trichy and the Indian Academy of Sciences:

"I wanted to take a moment to express my gratitude to The Internship Cell for all the support and guidance that cell has provided me for finding the perfect internship opportunity for me. Efforts taken by them in helping me to secure a valuable learning experience are truly appreciated. Thank you for being an invaluable resource and making my internship search a bit easier."

The Alumni Committee

AIM – TO DEVELOP THE STUDENT NETWORK AND CONNECT WITH PRESTIGIOUS ALUMNI

The alumni committee comes under the Alumni Association of SPCE. Our objective is to connect our students with our prestigious known and unknown Alumni. We conduct the sessions and panel discussions for the students of SPCE so that by attending these sessions, students can gain knowledge in different areas and develop their skills. Our motive is that students should learn from the experiences of our alumni.

Our Events

Know your Alumni session

'Know Your Alumni' was arranged on the eve of Engineer's Day by the Alumni Committee in association with the SPCE Alumni Association.The guests for the day were three of SPCE's esteemed alumni: Mr Nikunj Khelurkar(Batch of 2015, Civil Engineering Department), Mr Jay Mehta(Batch of 2016, Mechanical Engineering Department) and Mr. Parikshit Deshmukh(Batch of 2016, Electrical Engineering Department).The event was also graced by Mr Shashikant Banka(Batch of 1996, Mechanical Engineering Department),the President of SPCE Alumni Association and Mr Arun Karle(Batch of 1967, Mechanical-Electrical Engineering Dual Degree), a patron of SPCE AA. Dr. M.M. Murudi(Principal,SPCE) also gave his active support for the event and was one of the panel members. Mr. Nikunj Khelurkar talked about his overall enriching college experience and how that shaped him to follow his passion. Mr. Jay Mehta spoke about how the fests and college in general helped him identify his skillset and hone it up to a level. H Mr. Parikshit Deshmukh made everyone understand the unstated importance of 'sincerity' in an individual's life. He gave many life-lessons through his retelling of small incidents from college life.

Vision Gate Series

'VISION GATE' was organized by the Alumni Committee. In this series we conducted two sessions. One for civil branch and other for electrical branch. For Vision Gate Civil the guest for the day was Mr. Gazanfar Khan (Batch of 2022, Civil Engineering Department) who is presently Masters Student at IIT Bombay, pursuing his masters in Transportation Engineering. And for Vision Gate Electrical the guest for the day was Mr. Prashil Wankhede (Batch of 2021, Electrical Engineering Department) who is presently Masters Student at Indian Institute of Science, Banglore pursuing his masters in Electrical Engineering. They both enlightened us with their knowledge and journey through gate and also answered questions like," Why GATE?". "What is the ideal time to start the preparation?"etc. Exploring the versatility of inter disciplinary of higher studies. A guest lecture was organised by the alumni committee on 17th February 2023 on topic 'Exploring the Versatility of Inter Disciplinary of higher studies'. This topic was delivered by our alumni Dr Sushrut Vaidya of 2005 batch Dr Bage sir welcomed Dr Sushrut Vaidya sir with tulsi plant and the lecture began and exposed participants to a whole new dimensions of interdisciplinary applications.

Institute Innovation Council

The IMPACT Lecture Series is an initiative of MHRD's Innovation Cell (MIC) and AICTE to generate awareness on innovation, IPR, and start-ups in such institutions with funding assistance from MIC and AICTE. SPCE IIC was one of the 654 institutions in the nation to receive the funds to conduct the Impact Lecture Series in 2022. A total of four online sessions were conducted under the Impact Lecture Series for the students and faculties.

Session	Lecture	Description	Beneficiaries
1.	1.	'Innovation Management' by Mr. T. G. Krishnan on 1st of July 2022 from 10:00 a.m. to 11:30 a.m.	76
	2.	'Needs and Wants' by Mrs. Neelam Kamthe on 1st of July 2022 from 02:00 p.m. to 03:30 p.m.	12
2.	1.	'Innovation to Business Modeling' by Mr. Dinesh Israni on 27th of July 2022 from 10:00 a.m. to 11:30 a.m.	29
	2.	'Idea Generation Techniques' by Dr. Jagdish Jadhav on 27th of July 2022 from 02:00 p.m. to 03:30 p.m.	15

ASHRAE

ASHRAE (American Society for Heating, Refrigerating and Air-Conditioning Engineers) is a professional society with chapters in more than 130 nations. The main objective of this professional society is to disseminate knowledge regarding the HVAC (heating, ventilation, and air conditioning) field, which is growing exponentially because of the huge demand for cooling and heating in the residential, commercial, data centre, hospital, hotel, etc. sectors.

SPCE ASHRAE Student Branch comes under the ASHRAE Mumbai Chapter of Region at Large (RAL), the biggest region in ASHRAE history. This branch disseminates knowledge through industry visits, site visits, expert lectures, workshops, etc.

The faculty advisor, Prof. Kunal Bhavsar, and co-advisor, Dr. B. N. Bhasme, are the points of contact between students and the Mumbai Chapter.

Mr. Piyush Dhatrak and Mr. Saad Khan from B.Tech. Mechanical Engineering have won first prize in the paper presentation competition at the ASHRAE Mumbai Chapter Level and received Rs. 5,000 as a reward. Moreover, they also qualified for the International Paper Presentation Competition at Regional at Large (RAL), secured third rank, and won $250 (USD).

Mr Kaif Badshah, Mr Madan Narayanan, and Mr Shashank Phulmali competed in the ASHRAE Mumbai Chapter level paper presentation competition and secured the 2nd runner-up position.

Through the ASHRAE Mumbai Chapter, Mr. Kaif Badshah and Mr. Suraj Swami were given an internship opportunity at KPM Engineering, an HVAC consulting firm that has designed MEPF for many international and national projects. They completed a full one-month internship successfully.

Mr. Saad Khan was invited to deliver a presentation on one of the president's initiatives at the ASHRAE Mumbai Chapter BOG Meeting on 5th January 2023. His presentation on 'Heat Load of a Research Laboratory in Cairo, Egypt' was very well appreciated by the BOG members and also gave him more insights on how he can make the design more effective.

ALUMNI MEET 2022-23

Alumni Meet 2023 was arranged by Alumni Committee in Room no 119 on 1st Floor of Sardar Patel College of Engineering in Bhavan's Campus on 8th March 2023 from 5:30 pm onwards. Our Prestigious Alumni of SPCE were invited as our guests. The meet started with high tea at the dining area in the campus. The meet was graced with the presence of Mr Shashikant Banka sir (President of Alumni Association of SPCE), Dr M M Murudi sir (Principal SPCE), Dr B N Chaudhary sir (Principal SPIT) & Mr Sunil Jainapuri (Secretary of Alumni association of SPCE). The meet started with the lighting of lamps by the honourable dignitaries and with the sweet Sara Swati Vandana. The principals from SPIT& SPCE addressed the gathering with their kind words expressing about how essential is the alumni to college and how the alumni have always had their heads held high in various sectors of the world. Mr Sashi Banka also addressed the gathering by his kind words. After this Bhavesh and Apurva from team Spandan presented some beautiful songs in front of all audience. Retired faculty were felicitated and acknowledged by presenting them shall and Coconut. The batches completing 10+ & 25+ years were felicitated in the meet. Dr Ajay Bambhole, Dr.Prof.P.V Parmeshwaran, Dr. Prof. Roshini Essaw also addressed the gathering by sharing there memories in SPCE. The vote of thanks was given by Mr Sunil Jainapuri and the meeting was concluded and was followed by dinner.

SPICON

Sardar Patel College of Engineering, Andheri, Mumbai, is completing its 60th year in 2022. In this 60th year Jubilee, SPCE organised the Sardar Patel International Conference on Industry 4.0- Nascent Technologies and Sustainability for 'Make in India' Initiative (SPICON 2022) on **22nd -23rd December 2022.**

SPICON 2022 received the blessings of our patrons, Hon. Director DTE Dr. Abhay Wagh, Hon. Joint Director DTE Dr. Pramod Naik, Bhartiya Vidya Bhavan's Governing Board members Hon. H. N. Dastoor and Jt. Exec. Secretary Shri. Jagdish Lakahni, SPCE-BOG Chairman Dr. Sesha Iyer, SPCE-BOG member Hon. Asif Mulla, Principal SPCE Hon Dr. M. M. Murudi, and Principal SPIT Hon. Dr. B. N. Chaudhari.

SPICON-2022 was sponsored by the government of India's premier organisations like SERB, AICTE, and CSIR. It is also sponsored by the IIIE Mumbai Chapter, Turn It In, and Apex subscriptions.

Dr. Kiran Bhole (Programme Chair of SPICON 2022) put in sincere efforts to get sponsorship from government organisations, and Dr. Kiran Talele (Programme Chair of SPICON 2022) coordinated efforts towards technical collaborations with IEEE.

SPICON 2022 was organised in association with the Sardar Patel Institute of Technology, Mumbai, **Capegemini, SAE India WS, Institution of Engineers (India), Indian Institution of Industrial Engineering, and the Federation of Education Leaders and Administrators (FELA). Further, SPICON-2022 has technical collaboration with the American Institute of Physics (AIP) and IEEE Bombay Section for publishing the conference proceedings.**

Original contributions based on theoretical, experimental, design, development, simulation, application, test, and case studies were invited for presentation at SPICON 2022.

Authors could opt for AIP or IEEE for publishing the article and preparing the manuscript as per the correspondingly prescribed format.

Formats for manuscript preparation were available on the conference website: **https://www.spce.ac.in/conference.php**

SPICON submissions were received on Easy Chair professional software.

SPICON 2022 offered the following tracks for submission:
- Track 1: Advances in Mechanical Engineering
- Track 2: Advances in Civil Engineering
- Track 3: Electrical, Electronics, and Telecommunication Engineering
- Track 4: Computer Science and Engineering (AI, ML, and Data Science)
- Track 5: Information and Computer Technologies
- Track 6: VLSI & Signal Processing

SPICON 2022 received an overwhelming response of more than 330 papers. We received papers from India, the US, Korea, and Malaysia.

SPICON had three important themes: sustainability, industry 4.0, and the Make in India Initiative. The conference invited research papers on the application of Industry 4.0 technologies to achieve sustainability and support the Make in India initiative.

The conference was also focused on sustainability and was in alignment with the 17 sustainable goals of the United Nations.

The conference featured paper presentations in online and offline modes. In total, 170 papers were presented in 34 sessions. It also offered keynote speeches by eminent speakers who will focus on state-of-the-art developments in the field of industry 4.0 like green technology, lean manufacturing, supply chain management, innovative business processes, cloud delivery, network virtualization, network security, big data analysis, machine learning and prediction analytics, IoT, blockchain, and their recent trends in various verticals of engineering.

The conference was conducted over two days. The inaugural function of SPICON 2022 was a grand event in and of itself.

Initially, at the inaugural function, dignitaries were requested to take their seats on the dais.
The lighting of the lamp by dignitaries was followed by Saraswati Vandana. To remember Dr. Kulapti Munshi ji and Iron Man of India Sardar Patel, speeches were given.

All the dignitaries on the dais were felicitated with a warm welcome.

Member of the Board of Governance of SPCE, Hon. Asif Mulla, Sir, welcomed all the guests to SPICON 2022. He also offered his best wishes to SPICON 2022 for its grand success.

Then Conference Chair Dr. Santosh Rane introduced SPICON 2022 to the audience and also thanked all stakeholders for making the conference a grand success.

Principal SPCE Dr. M. M. Murudi addressed the audience and appreciated the efforts of the SPICON team.

Principal SPIT Dr B N Chaudhari addressed the audience, and he emphasised the adoption of the technologies. He also offered his best wishes for the success of SPICON 2022.

Guest of honour and Keynote Speaker Dr. Arvind Ankalikar, Special Guest, and Keynote Speaker Mr. Sanjeev Gupta also addressed the audience and appreciated SPCE for organising such a wonderful conference at the right time.

Chief Guest Dr.Sharad Saraf, Chairman BOG IIT Bombay, and Chairman BOG IIT Jammu addressed the audience and ignited the minds with revolutionary thoughts. He emphasised the alumni's contribution to the development of the institution. He also emphasised sustainability and the Make in India initiative.

The inaugural function was followed by key note speeches by Dr. Arvind Ankalikar, Executive Vice President of LTIMindtree, and Mr. Sanjeev Gupta, Senior Vice President of Capgemini. Both key note speeches covered excellent use cases of Industry 4.0 technologies.

The conference tutorials were organised successfully by tutorial chair Dr. Dhanajay Kalbande and tutorial co-chair Dr. Aarti Karande.

Panel discussions were organised by Prof. Satish Barot. High-profile educationists were invited as eminent panellists to ignite minds about technologies in education.

On the second day, the key note speech on (I for Industry 4.0) was offered by Dr. K. S. Gupta, Director of the KSG Centre for Quality Minds in Bangalore.

SPICON 2022 acknowledges and appreciates the contributions of the editors and reviewers. They have made a significant contribution to improving the quality of the manuscripts included in the proceedings. We would also like to express our gratitude to the members of the organising committees for their efforts in supporting the event and extending their cooperation in making this event a grand success.

Programme Chairs Dr. Kiran Bhole and Dr. Kiran Talele significantly contributed to organising SPICON2022.

SPICON 2022 has received a remarkable contribution from student organising committees.

We are thankful to the management of SPCE, programme chairs, track chairs, session chairs, reviewers, all organising committee members, faculty members, advisory committee members, conference core committee members, supporting staff, sponsors, student committee members, and suppliers for making this conference a grand success.

Dr. Santosh Rane
Conference Chair
Sardar Patel International Conference
SPICON 2022

ROTARACT CLUB

Rotaract is a place where volunteers gather to discuss various societal issues and propose solutions to make society a better place to live. Since the club's inception in 2019, many of our college's student members have contributed significantly to society. Our motto for the year is "Live Altruistically".

'RCSPCE with a vision, One team one mission'

In the past, we have carried out a number of activities through our club, such as providing fertilizer to Wada tribal farmers. 5 tonnes of plastic trash was collected. We also carried out some additional tasks, including voter registration, during the lockdown. Our first committee after lockdown was this year, and we carried on with the same enthusiasm. This time, we gave emphasis to environmental awareness initiatives. Both the Versova Beach Cleanup and the Rajiv Gandhi National Park Cleanup involved our members. These experiences made us realize how these initiatives are part of our new legacy and goal. In addition, for this Women's Day, we are organizing a campaign to educate poor schoolgirls about menstruation hygiene.

SPEAKERS CLUB

The Speakers Club at Sardar Patel College of Engineering is a platform where students can improve their public speaking skills and gain confidence in communicating their ideas effectively. The club conducts weekly sessions where students can participate and improve their skills through various activities.

The weekly sessions of the Speakers Club usually start with an introduction by the club coordinator, followed by a warm-up exercise to get the participants comfortable and engaged. This may include activities like tongue twisters, storytelling, or improvisation exercises.

After the warm-up exercise, the participants are given a topic to speak on. The topic may be related to current affairs, science and technology, social issues, or any other relevant topic. The participants are usually given a few minutes to prepare their speeches, after which they are asked to deliver them in front of the group.

The speeches are then evaluated by a panel of judges, who provide feedback on the content, delivery, and overall performance of the participants. The judges may also provide suggestions for improvement and give tips on how to enhance their speaking skills.

In addition to the speeches, the weekly sessions of the Speakers Club may also include other activities like group discussions, debates, impromptu speaking exercises, and guest lectures by experienced speakers. These activities provide a platform for students to learn from each other and from experienced speakers and to develop their skills further.

PIXEL VISION

Pixel-Vision is the official photography club of Sardar Patel College of Engineering. It was started by a bunch of hobbyist engineers who had an affinity for photography.

Since its inception in 2019, the club has mainly focused on promoting photography and videography in college and bringing exposure amongst the students about this visual art. The club was founded by Adesh Koli and Akash Bangar. The club always had a solid backbone from our mentor, Prof. Pritesh Rao, and faculty advisor, Dr. Santosh B. Rane.

After the lockdown was lifted, the club started working in collaboration with the Students' Council, covering all the annual and cultural events that were being organised under the banner. With this collaboration, the student members of the club had an opportunity to explore various aspects of photography, which helped develop their skills in the field. This development is reflected in the current year's draft of SPECTALE magazine, where mesmerising submissions have stolen the show.

The club conducted a photo walk, giving the members a chance to test their photography skills and get some amazing photos for their social media pages. The Urban Art Festival at Sassoon Docks was selected as the venue for the photo walk as it proved to be a good location.

The club is also active in correspondence for editing and rectification. A workshop on Lightroom was conducted by our President Soham Hirlekar in February 2022, which was stimulating for the students as well as an enriching experience. Accompanied by plans for further workshops and tutorials in video editing and animation, the club aims to develop a complete ecosystem for the nurturing of amateur photographers and fellow hobbyists.

SPIKE

Sports not only build better athletes but also better people. SPIKE is the official sports club of Sardar Patel College of Engineering. It is an initiative put forth by SPCE for the students to improve qualities like sportsmanship, generating a positive attitude, putting in their best efforts, and versatility. It helps build skills like leadership and teamwork. Playing sports not only improves one's spirit but also helps in academics by providing mental relief. Physique and health is bettered aswell. Sports played by the club include: cricket, volleyball, football, basketball, throwball, badminton, table tennis, chess, carrom, kabaddi, kho-kho, etc.

SPANDAN

The Spandan music club was founded in 2020 and has since actively participated in numerous events all over Mumbai. The club represents the band itself, which has made huge progress in the last two years.

CLUB ACTIVITIES IN ONLINE MODE

Spandan has performed on a number of occasions, including Independence Day, Shivaji Jayanti, and Republic Day. We also hold live jam sessions because the one we held at Marines was a huge hit for the club. At the Pre-SPACE in the SPCE cultural festival, the band gave its best performance to date, as widely believed.

When the whole world stopped at almost every stage, team SPANDAN was still active, making entertaining videos from our home itself. We made online videos using various creative ideas, striving to give the best on social media platforms, mainly Instagram.

MARINES PERFORMANCE FOR PROMOTING SHINX

Spandan takes various sessions on teaching instruments and vocal skills helping talented musicians in the college to grow their skills at the topmost level. We teach instruments like Guitar, flute, ukulele, piano, classical singing,etc.We also participated in music competitions of the other colleges too. Revati Vyas and Ketan Gupta from our college had participated in "TALENZZIAA" which is the cultural fest of Tolani college of commerce located in Andheri (W). Vedant Khandekar and Pranav More won the instrumental duet competition in SARGAM, the musical event in the techno-cultural fest of SPIT, OCULUS.

SPARKLE

Sparkle is the official fashion club of Sardar Patel College of Engineering. The main aim of this club is to spread fashion knowledge to everyone. It also focuses on the aspect that there is a promising career in this field too. It tells the students about the importance of fashion in today's generation. You are how you present yourself.

Its motto is to build confidence in students so that they can overcome stage fear and face the world with full confidence. To be a part of this club, one needs to fill out the registration form available on the official Instagram page of Sparkle. Auditions are conducted, and the existing senior members finalize the new student members. This club conducts various grooming sessions, seminars, and ramp walk practices to build confidence in the team. This club encourages students to explore their creative selves and create ideas that keep up with the changing trends and arts.

The theme chosen by the team for this year was "GREEK DEITES (MEDUSA'S REVENGE)." Every member of the team put their best foot forward to come up with great ideas, starting from ideation to costume to props to makeup. The result turned out to be heavenly. We participated in "Vogue" – The Fashion Show of SPHINX. Unfortunately, we could not win but came in third. That did not demotivate the team rather inspired us to do more and more better next time and overcome all the barriers we faced this year. Sparkle will evolve into a great fashion club in the years to come. All the fashionistas, be prepared to be dazzled!

Committee Members :

Head of Club:- Manali Sonkusale
Co-Head of Club:- Nachiket Naralwar
Choreographer:- Khushi Jagetiya, Sayali Kathore, Sakshi Thakur.
Performing Head:- Minal Dhandekar, Jivan Bayaskar
Co-ordinators:- Apurva Garad, Kruti Jharbhade

SPLASH

SPLASH is the Official Dance Club of SPCE. This Club works as a team consisting of dancers. The Club was formed to explore and utilize the known or unknown talents of students and to facilitate progress in their artistic journey in the college and was formed in the academic year 2018-19. This Club aims at the cultivation and fine tuning of the inherent potential of the students in dancing, thus enriching their artistic and social skills.

In online mode, Garba dance competition was held on occasion of Navratri and was judged by Prof. Divya T.A. Diwali theme dance was conducted on the occasion of Diwali. Independence day dance was performed by SPLASH members.
 The dance club gave a platform for the students to participate in various dance competitions conducted by other colleges. The club also participated in 'Step-Up'- The Dance Competition in Annual Techno-Cultural Fest "SPHINX." In offline mode, workshops were held for the students, where they received training from choreographers. The events organised by the dance club gave the members a wide platform to showcase and exhibit their talents. SPLASH will always be there to add colour to the various programmes hosted by the college..

मराठी भाषा संवर्धन समिती आणि TESA-SPCE आयोजित
मराठी भाषा संवर्धनाचे विविध कार्यक्रम
(शैक्षणिक वर्ष २०२२-२३)

वाचन प्रेरणा दिन - १५ ऑक्टोबर २०२२,
वक्ते - प्रा. डॉ. गिरीश दळवी, IDC, IIT मुंबई

मराठी भाषा संवर्धन कार्यक्रम - २३-२४ मार्च २०२३
प्रमुख वक्ते - प्रा.डॉ.एम.ए. कुलकर्णी, HSS विभाग, IIT मुंबई

SPCE ANNUAL DEBATE

 On the 12th and 13th of November 2022, Sardar Patel College of Engineering held its flagship debate competition, 'SPCE Annual Debate 2022'. This was the 10th iteration of SPCE Annual Debate with a tagline for this year **"Raise Your Words, Not Your Voice"**. It was the first time that the SPCE Annual Debate was in a Modified Asian Parliamentary Format, with three member teams competing in each match. With an aim to provide a platform for young minds to nurture their debating talents, the event invited the best debaters from all over India to put forth discussions, to refute, to explore, to question, and to put forward their views and opinions on various intriguing and socially and economically relevant issues that we come across. Even in such unpredictability due to the new debating format, the SPCE Annual Debate received a massive response from students and debaters across the country.

The Day-One of the debate commenced with the inauguration ceremony, followed by an address by the I/C Principal, Dr. M. M. Murudi. There was an esteemed panel of speakers of house and scholars in their fields to grace this occasion and add to its splendor. With everything else set, the battle of wits began. The first day witnessed some great debates on many socially and economically relevant topics. The best eight teams qualified for the next round.

The motions were appreciated by all the speakers of the house, and their words of wisdom really inspired us. Day Two saw knock-out rounds where the top eight teams locked horns in the quarterfinals, followed by the semi-finals, and ultimately the final round. With each round, the difficulty level rose, but each match was a battle of wits. The two best teams made their way to the finals, fighting with diligent enthusiasm. The event concluded with the an award ceremony by the Speaker of the House, Prof. Kaisar Katchi, and Mr. Saurav Patil for all the winners and runners up.

With a vision to make a change in society with the waves of new thoughts and ideas, and change perceptions, the baton is now passed to the next batch to carry the legacy of the SPCE Annual Debate to greater heights!

SPCE शिवजयंती उत्सव 2023

निश्चयाचा महामेरू । बहुत जनांसि आधारू॥
अखंड स्थितीचा निर्धारू। श्रीमंतयोगी॥

गेली चारशे-साडेचारशे वर्षे उलटल्यानंतरही आजतागायत ज्या राजाची जयंती आनंद-उत्साह आणि स्वयंस्फूर्तीने साजरी केली जाते, ती म्हणजे छत्रपती शिवाजी महाराज यांची जयंती. छत्रपती शिवाजी महाराज की जय! म्हटल्यावर आजही रक्त सळसळते, एक नवी उमेद, उर्जा आणि जोष प्राप्त होतो. महाराजांच्या चरित्रातून आपल्या सर्वांना कायम प्रेरणा मिळते. दरवर्षी प्रमाणे यावर्षी सुद्धा आपल्या महाविद्यालयात शिवजयंती मोठ्या आनंद-उत्साहाने साजरी करण्यात आली|

पालखी सोहळा : शिवजयंतीनिमित्त SPCE Hostel ते SPCE Entrance असे पालखीचे आयोजन करण्यात आले होते. पालखीची सुरुवात कार्यक्रमाचे प्रमुख अतिथी म्हणून लाभलेले इतिहास अभ्यासक व प्रसिद्ध शिवव्याख्याते श्री. रविराज पराडकर यांच्या हस्ते मूर्तीपूजन व नारळ फोडून करण्यात आली. शिवगर्जना, गारद, 'छत्रपती शिवाजी महाराज की जय', 'हर हर महादेव', 'जय भवानी जय शिवाजी' या घोषणांनी अवघा Campus दुमदूमला होता|

व्याख्यान : कॉलेज मुख्य प्रवेशद्वाराजवळ आल्यावर मूर्तीची Seminar Hall येथे प्रस्थापना करण्यात आली व दीपप्रज्वलनानंतर कार्यक्रमाची सुरूवात झाली. इतिहास अभ्यासक व शिवव्याख्याते श्री. रविराज पराडकर यांचे व्याख्यान पार पडले. छत्रपती शिवाजी महाराज - उर्जेचा एक अखंड स्रोत याबद्दल सरांनी सर्व विद्यार्थ्यांना प्रबोधित केले. यावेळी प्र.प्राचार्य मुरूडी सर, दहातोंडे सर, गायकवाड सर, गौंड सर, तोरणे सर, कामगार सेना प्रतिनिधी श्री. विनोद तांबवेकर सर व इतर सर्व शिक्षक व शिक्षकेतर कर्मचारी आवर्जून उपस्थित होते. विद्यार्थ्यांतर्फे प्रमुख अतिथींना महाराजांची प्रतिमा भेट म्हणून देण्यात आली तर दहातोंडे सरांनी अतिथींचे आभार प्रदर्शन केले|

स्पर्धा : कार्यक्रमानिमित्त 'छत्रपती शिवाजी महाराज व मराठा साम्राज्य' या विषयावर चित्रकला स्पर्धेचे आयोजन करण्यात आले होते. मिताली टोके या विद्यार्थिनी ला प्रमुख अतिथींच्या हस्ते पारितोषिक देण्यात आले. सोबतच महाराजांच्या जीवनावर आधारित प्रश्नमंजुषा आयोजित करण्यात आली होती|

नाटक : आकाश कांबळे, सीमा सरगार, सार्थक देव आणि भूषण रोकडे यांनी 'अफजलखान वध' या विषयावर नाटक व पोवाडा सादर केला|

गीतगायन : SPCE-स्पंदन तर्फे गीतगायनाचे आयोजन करण्यात आले होते. कौशिक महापात्रा याने 'माय भवानी' गाणे सादर केले, तसेच तोरणे सर व श्री. विनोद तांबवेकर सर यांनी देखील आपल्या स्वरसूरांनी सर्वांना मंत्रमूग्ध केले|

रक्तदान : शिवजयंती निमित्य सामाजिक उपक्रमाच्या भावनेतून रक्तदान शिबिराचे आयोजन दुपारी 2 ते 5 दरम्यान, Room 119 मध्ये करण्यात आले होते. यानिमित्य 45 विद्यार्थ्यांनी रक्तदान केले. रक्तदान करतांना कोणालाही इजा होणार नाही याची रितसर काळजी घेण्यात आली होती|

अशा प्रकारे विविध प्रेरक कार्यक्रमांनी महाराजांची जयंती आनंद उत्साहाने साजरी करण्यात आली|

संतास रक्षितो, शत्रू निखंदतो... भावंडभावना संस्थापितो
ऐसा युगेयुगे स्मरणीय सर्वदा, माता-पिता सखा... शिवभूप तो
छत्रपती शिवाजी महाराज की जय !!!

SPCE Hostel : Student Activities

A hostel is a 'second home' for many students, especially for those staying away from home. Over the years, SPCE Hostel has produced good, remarkable, and imminent students, being a beholder of beautiful memories, dreams, and accomplishments. Hostelites are always involved in some or the other activities which carve them into responsible and efficient students. They are always involved in the celebration of various festivals, college fests, etc., which gives them a homely feeling. There is always the mass contribution of hostelites in every program of the college. Activities conducted by students in the academic year 2022-23 are as follows:

Tree Plantation: Tree planting had been done by hostelites along with the Barclays corporate crew. Four different species of tree were planted: coconut, neem, aloevera, and tulsi. Nearly 30 trees were planted, which still grow and enhance the beauty of the lush green campus.

Ganesh Utsav: Ganesh Utsav brings joy, especially when you are in Mumbai. Hostelites have celebrated Ganesh Utsav in the hostel since 1974. Ganesh Murti was worshipped in the hostel. The decoration for the set up of bappa's idol started a week before by the students. The decoration was done with beautiful flowers, glittery papers, lights, etc. For this, students are backed by teachers, staff, and faculties. The 7 days were filled with the grand aarti, delicious prasad, and loads of blessings from "Ganpati Bappa." Various competitions and games were also organised by students.

Shiv Jayanti: It was the most anticipated event for hostelites. Palakhi was organised from the hostel to the college entrance. Most of the students were present for the occasion. The decorations and preparation for the program started a week before. There were posters all over the campus. It was a great event that aroused enthusiasm among students. Further activities are included in the Shiv Jayanti Celebration report.

Holi Dahan: Holi Dahan symbolises the victory of good over evil. It burns all the negativity and enriches our life with positivity. It brings positivity among students, especially when it is the month of March and the time of exams. All the students gather near the mess and offer their prayers to the sacred Holi fire, wishing for their well-being and prosperity.

Facilities: Along with regular facilities, this year hostel is equipped with other facilities like Newspaper, Study Room & TV in SPCE Mess.

All these activities help students excel in curricular and extracurricular activities. Along with these, this helps in creating a conducive atmosphere for students to nurture their potential, realign their minds, and fulfil their desired goals in a disciplined manner, especially when they are living in a hostel far away from home.

Men's Day '23

On the 19th of November 2022, the first ever Men's Day celebration was held in our institute to celebrate the essence of manhood, with the theme of the event being "Men's Mental Health Matters". A short film-making competition was held on the basis of the theme, which brought to light the creative spirit of our college boys and untold stories of the male experience. A poetry-writing competition followed, which allowed for a platform for our college boys to voice out their deepest musings; and a Sports Open-Fire event, wherein questions based on football, basketball and cricket were fired at the male audience. Skin Elements, a men's grooming brand, was proud to be the title sponsor for the event, and free men's products and cash prizes were distributed to the winners of the competitions.

Women's Day '23

The 8th of March was an eventful occasion for the women of our institute as Women's Day 2023 was commemorated with full valour and enthusiasm by students and faculty members alike.

The teachers enjoyed poetries as displays of gratitude and were given a platform to express their feminine perspectives as trailblazers in the engineering domain. The girl students of SPCE enjoyed an evening of murder mystery solving, as the occasion of The Real Life Among Us presented itself with as much thrill as the online game. Free T-shirts were distributed amongst the crewmates and impostors. A photo booth was set up at the SPCE entrance, which evidently gained maximum popularity amongst the male audience.

SPHINX

Leonine Spirits, Human Intellect

So this was the year where a long-awaited leap was taken, a colossal task of commingling the SPECTRA - Techno Fest and SPACE - Cultural Fest, which gave birth to the project, which has gifted sleepless nights and long hours of working generously to all of its stakeholders and organising members. After due diligence and getting unanticipatedly bizarrely amusing opinions from dozens, finally the name SPHINX, the Techno-Cultural Fest of Sardar Patel College of Engineering, was locked upon, symbolically representing the tag line "Leonine Spirits, Human Intellect".

Well, it seemed like a meagre 3-day celebration but was built upon months of hardships, sweat, and time. Our toughest challenges were achieving the paradigm shift from SPACE and SPECTRA to SPHINX while maintaining the same enthusiasm and zest in the students, if not more. But as time passed and the day of execution came closer, the top stretched, and doing the impossible started seeming possible. And although we're upheld by various adversities and unshakeable circumstances, it's rightly said that "victory belongs to the most persevering".

The day before the commencement of SPHINX, the whole campus experienced the alchemy of dazzling lights, thrilling sound checks, and most importantly, the united spirits of all the students.

The first day was more of an amusing one, beginning with a grand inauguration in the presence of all the faculties, who showered us with their much-valued time. After unwinding our main posters with anticipation, we started all the formal events like "7 up, 7 down", "Tech & Ladder" and "Hit the Bullseye". Also started was the event "Voice it Out," an Oxford-style debate competition that witnessed a series of intense, heated debates, with the most convincing controversial argument winning the first prize. Simultaneously, some beautifully crafted pieces of thought expressed in words were getting judged in Room No. 119, under "Rhyme and Reason", which surely got some stomach-aching laughs and some heart-touching phrases. By evening, things started to flare up with the beginning of the flagship event "Step Up", where solo and group dancers battled to bag the winner's prize, which was judged by an accomplished dancer who is a part of the famous Kings Academy, and followed this was a night to groove along to the music, the DJ night.

The second day was a peek into the technical domain of the fest, starting off with the "Mock Interview", which gave participants a great opportunity to bridge the gap between college education and industry-grade learning. Amidst that, all the robot teams were gearing up their robot models for the "RoboRace" and Arm-a-bot," which checked the extreme precision of the auto-bots and quick reflexes of the operators, boosting the future "Tony Starks and "Elon Musks, and simultaneously going on in the CT lab was the competition of COC, where participants were putting together the strongest block of concrete they could, strengthening their foundations in the domain of civil engineering. And the "IPL Auction" it goes without saying, was witness to some of the fiercest bidding wars. At 5:30 p.m., after tonnes of sound checks and balancing SPANDAN, the music group of SPCE blew everyone's mind with their ecstatic melodies, with an unforgettable performance of cross-over between guitar and drum that left everyone with longstanding goosebumps. And levelling this high note, the day ended with "Mr. & Ms. SPHINX'' with charismatic personalities showcasing their talents in front of a vibrant audience.

Finally, the last day was nothing less than a judgement day for the whole organising team. It started with the opening of "Swaranjali", the singing competition, which swept the judge as well as the audience off their feet. Judging these fascinating performances was the lovely guitarist herself, Mihika Sansare, who has a massive following due to her exceptionally euphonious voice. And then followed the flagship event of Vogue, "Fashion Show", with stunning performances and the creativity of the teams for their out-of-the-box concepts. This well-hosted competition was judged by the gorgeous actress and model Ms. Rashmi Agdekar and a young, bright actress and influencer, Ms. Alma Hussein. And finally, the most awaited splendid and spirited performances of the gala night of "Iqlipse Nova" and "Kaam Bhari", while Nova released the official video of his song "Khwab" to the masses for the first time. And Kaam Bhari stunned the audience by releasing his song "NAZAR" for the very first time. And lastly, SPHINX couldn't get a better closure than a DJ night.

These three days inspired and changed a lot of people and brought all the various domains of SPCE together, bearing the joy of successfully hosting such a massive event amidst dealing with the aftereffects of lockdown. It was all possible because of the coordination and support provided by the CEA, EESA, and MESA committees, Pixel Vision, and the whole of the SPHINX family.
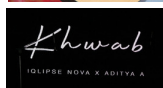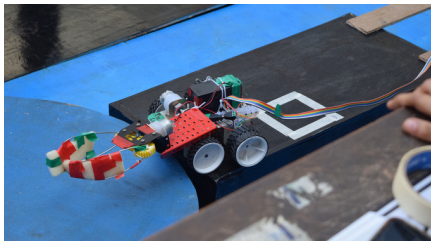
Events At SPCE

Bone Marrow Donation Drive
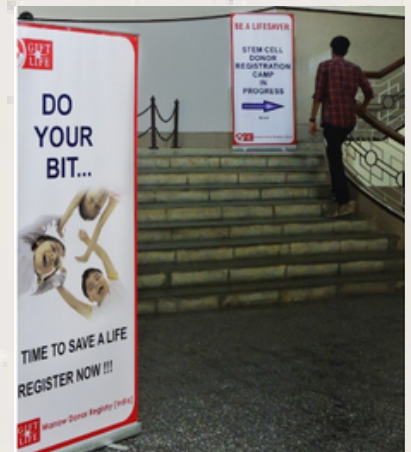
Republic Day 2023

Garba-Raas

F.Y. Induction Programme

STEM CELL DONOR REGISTRATION DRIVE

"You may be one person to the rest of the world, but to one person, you may be THE WORLD."

With this note, a Stem Cell Donor Registration Drive was conducted on 13th September 2022 in SPCE by Marrow Donor Registry India (MDRI) in association with Tata Memorial hospital for the many cancer patients around the world, funded by Tata trusts. The MDRI carries out these drives to search for potential blood donors, whose stem cells can be used to fight rare blood diseases like blood cancer, thalassemia, etc.

Each donor who volunteered had a 4mL sample of blood collected by the team of doctors. These samples will be stored in their registry, and if a donor matches with a patient with a rare blood disease, they will receive a call to make a blood donation. This way, they can save the life of a patient by helping them regenerate their stem cells. This event was smoothly coordinated with the sincere efforts of the SPCE Student Council 2022-23 and the student volunteers from SPCE, who ensured timely assistance to the MDRI doctors. This event was organized in memory of our beloved student Kushal Kapoor who was suffering from leukemia.

We're grateful to the students and faculty members of SPCE, SPIT, and Bhavan's College who took a selfless step towards being someone's life saviour. Thanks to this generous gesture, 183 donors have been successfully registered with the MDRI. Hopefully, with a successful match, a precious life will be saved.

BOOK DONATION DRIVE

A book donation drive was conducted by the Extension Activity Cell of Sardar Patel College Of Engineering from 7th January to 12th January for 6 days, in association with the Stemcare NGO. This book donation drive majorly focused on the general knowledge and fiction/non-fiction literature for the students in the age group of 7 - 18 years of an orphanage.

StemCare NGO was trusted with the selection of a right orphanage for the donation. And for the collection of books, a collector box was placed at the entrance of the college where all the students can anonymously donate.

At the end of the drive, in total 35 books were donated to this noble cause by the students, college faculty as well as the college library.

The books received included a wide spectrum of genres like philosophical, novel, encyclopaedia, self help, grammar and art.

Thus the book donation drive was a complete success and the motto of "let's make someone else's childhood as interesting as yours was" was summarized pro efficiently.

SANJAY GANDHI NATIONAL PARK CLEANING EXPEDITION

A cleaning drive for plastic waste was conducted by the Extension Activity Cell of Sardar Patel College Of Engineering on the 21st January, Saturday from 9:00 a.m. to 11:30 a.m. at Navapada ,Sanjay Gandhi National Park, Borivali in association with the Afroz Shah Foundation also joined by the dignitaries of Norwegian Parliament. A student team of 12 members went out on the cleaning mission amidst the exams and organisation of the upcoming techno cultural fest Sphinx. The cleaning drive lasted for about 2 hour and 30 mins, wherein the students geared up at 9:00 a.m. The gloves and all the cleaning materials were provided by the foundation.

Before the weekly clean-up starts, all the students were given instruction of what is to be during the drive. Students accompanied with volunteers from the foundation and Norwegian delegates went to the residences of the Navapada settlement and made them aware about the problems generated due to plastic waste . They collected the plastic waste from each household which was then gathered at a single place. The hence collected waste was then segregated into 7 types of plastic . The municipal corporation trucks are filled up with plastic and other garbage and are sent to recycling plants where they are separated and biodegradable waste is sent to landfills and rest is recycled at its best. The students got to discuss with the Norwegian delegates about the alarming issue of waste management especially plastics in India and the steps to be taken to eradicate the problem .The delegates also shared about how the government of Norway manages to do the same.

After the task was accomplished, the campaign was called off for the day just to carry on the same consistently next week. All the volunteers interacted with circular economy team of the Afroz Shah Foundation which educated them further about plastics and circular economy. Maithili Shinde, Social Secretary of the Student Council 22-23 was the point of contact between the students and the NGO, making sure all the students assembled at the right venue at the right time.

The pada was cleaned and locals seemed to be understanding of plastic segregation .We are looking for to similar drives in upcoming months.

SPORTS AT SPCE

SPIRIT 2023

The Sardar Patel College of Engineering's Annual Sports Festival, SPIRIT 2023, was a grand success!! With over 1100 enthusiastic participants from all over Maharashtra competing in nine different indoor and outdoor sports, the event appears to have been a huge success. It was a long but unforgettable journey from the fest's official opening on March 22, 2023, to its official closing on March 30, 2023.

Compared to last year, sports secretaries made significant advancements and were able to draw in a larger audience. SPIRIT 2023 has been a huge success thanks to the tireless efforts of the student organizing committee, volunteers, and the Students' Council as well as the inspiration of the faculty members and esteemed Principal sir.

The fact that outdoor sports like Football, Cricket, Volleyball, Throwball, kho-kho, athletics, kabaddi and basketball, as well as indoor sports like carrom, chess, and table-tennis attracted a huge number of participants, is impressive. This is a testament to the hard work and dedication of everyone involved.

Football
This year's football tournament was incredibly exciting. For the competition, about 12 teams signed up. The competition took place on April 30 in a knockout format. The players displayed outstanding talent and sportsmanship. Don Bosco College finished in second place, and A.P. Shah College took first place. The show featured extraordinary talent and was a resounding success overall.

Cricket
The cricket competition was equally impressive and featured players from about 8 colleges. The matches were very encouraging, and Indala College prevailed after a close race.

Basketball
Amazing skills were displayed by the competitors, and the event was quite interesting.
Congratulations to everyone involved in making SPIRIT 2023 a huge success, and I wish you all the best for even greater success in the years to come. It's an exciting event that fosters sportsmanship and a spirit of healthy competition, and it's wonderful to see it continuing to grow and thrive.

FIRST YEAR

CIVIL

ELECTRICAL

MECHANICAL

SECOND YEAR

CIVIL

ELECTRICAL

MECHANICAL

THIRD YEAR

CIVIL

ELECTRICAL

MECHANICAL

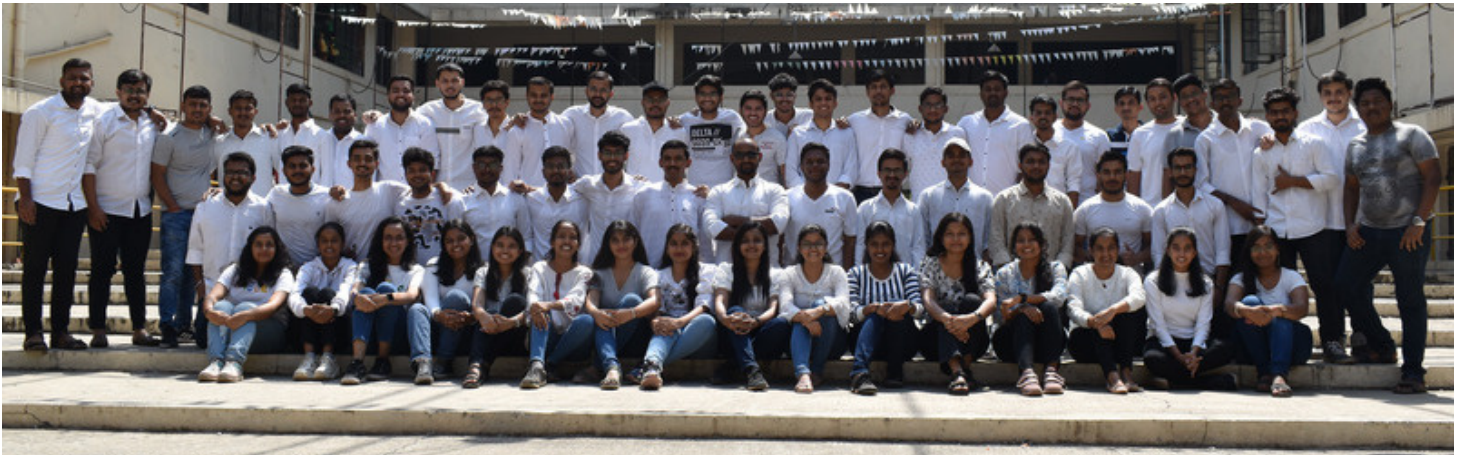# B.TECH

CIVIL

ELECTRICAL

MECHANICAL

M.TECH

CONSTRUCTION MANAGEMENT

STRUCTURAL ENGINEERING

POWER ELECTRONICS AND POWER SYSTEM

Use of Technology for Wildlife Conservation in India

India is one of the most biodiverse countries in the world, home to a vast array of flora and fauna, including iconic species such as tigers, elephants, rhinoceroses, and sea turtles. However, rapid urbanization, habitat loss, and poaching have threatened the survival of many of these species. In recent years, India has turned to technology to help protect its wildlife and conserve its natural heritage.

Technology can provide valuable data on wildlife populations, detect threats such as poaching and habitat loss, and help communicate conservation efforts to the public. It can also automate certain tasks, reducing the time and resources required for conservation work. The constantly evolving nature of technology offers new opportunities for conservationists to develop new approaches and strategies to protect wildlife and their habitats.

One of the most significant uses of technology in wildlife conservation in India is for the protection of tigers, which are an emblematic species of the country. India has launched a program called Project Tiger, which aims to protect the country's tiger population and their habitats. This program uses technology such as camera traps and GPS collars to monitor tiger populations, track their movements, and prevent poaching. Camera traps have been set up in tiger reserves, which capture images of tigers and other wildlife. These images help conservationists to estimate the tiger population size, track their movements, and identify any threats. GPS collars are fitted on tigers to track their movements, which helps conservationists understand their habitat use and migratory patterns.

India is also using technology to mitigate the human-elephant conflict, which is a significant problem in many parts of the country. Early warning systems have been developed that use sensors to detect the presence of elephants near human settlements. These systems alert villagers, giving them time to take precautions and avoid conflicts. In addition, drones are being used to monitor elephant populations, track their movements, and assess their behaviour.

Sea turtles are another endangered species that is being protected through the use of technology in India. Drones are used to monitor sea turtle nesting sites, which helps conservationists understand the nesting behaviour of sea turtles and protect their habitats. GPS tracking devices are also fitted on sea turtles to track their migration patterns and identify areas that require protection.

The one-horned rhinoceros, which is found only in India and Nepal, is another species that is under threat from poaching. India is using technology to protect this species by deploying thermal imaging cameras to detect poachers at night. Drones are also being used to monitor rhinoceros populations and detect any unusual behavior that could indicate poaching activity.

India is using technology in innovative ways to protect its rich biodiversity and wildlife populations. These efforts are helping to ensure the survival of endangered species and protect the natural world for future generations. By leveraging the power of technology, India is showing that it is possible to balance economic growth with environmental conservation and create a sustainable future for all.

~ Tanishq Dipak Kale (T.Y. Electrical)

अमानुष यंत्रांचे कारखाने!

स्पर्धा जीवघेणी आहे, त्यात बळी तर जाणारच, यावर विश्वास ठेवणाऱ्या शिक्षणव्यवस्थेत मुळापासून बदल करावे लागतील..

आयआयटी मुंबईत पहिल्या वर्षांत शिकणाऱ्या दर्शन सोलंकीने काही दिवसांपूर्वी आत्महत्या केली. परीक्षेचा ताण किंवा/ आणि जातीयवादी वागणूक, यापैकी नेमके कारण अद्यापही स्पष्ट नसले तरी मागील २० वर्षांतील अभियांत्रिकीच्या शिक्षणाची वाटचाल विद्यार्थ्यांना नैराश्याच्या अरण्यात घेऊन आली आहे, हे निश्चित!

दरवर्षी 'आयआयटी' आणि 'एनआयटी'च्या साधारण ४० हजार जागांसाठी जवळपास १०-१२ लाख मुले जेईई देतात. या सर्वांना इंजिनीअर का व्हायचे असते? नोकऱ्या मिळाव्यात म्हणून! आयआयटीतच का जायचे असते? भरपूर पगाराची नोकरी मिळावी म्हणून! 'चांगल्या' कॉलेजचे निकष फक्त तिथे कर्मचाऱ्यांच्या शोधात येणाऱ्या (प्लेसमेंटसाठी) कंपन्या, त्या कंपन्यांत मिळणारे पगार आणि नोकरी मिळण्याचे प्रमाण इतकेच असते. वरवर पाहता यात काहीच वावगे नाही. जगायला पैसा लागतो, त्यासाठी नोकरी लागते, त्यासाठी शिकावे लागते हे बाळकडू सर्व भारतीयांना मिळालेले असते. शिक्षण घेण्याचा उद्देश नोकरी मिळवणे नसून नोकरी करण्यासाठीची कौशल्ये व आत्मविश्वास संपादन करणे हा असला पाहिजे, हे पालक आणि मुलांना एकवेळ माहीत नसेल पण शिक्षण देणाऱ्या संस्था, सरकारी नियामक मंडळे व शिक्षण मंत्रालयाला तर नक्कीच माहीत आहे. म्हणूनच तर कोणत्याही अभियांत्रिकी महाविद्यालयाच्या संकेतस्थळावर त्यांच्या 'डिग्री प्रोग्राम आउटकम'मध्ये (पदवीची निष्पत्ती) विद्यार्थ्यांचा सर्वांगीण विकास होईल, आत्मविश्वास वाढेल, सुप्त गुणांना वाव मिळेल अशी यादी असते. त्यांच्या व्हिजन, मिशनमध्ये 'नक्की नोकऱ्या मिळतील' असे कुठेही म्हटलेले नसते. 'इथे घडलेले अभियंते देश उभारणीस हातभार लावतील, मानवतेसाठी काम करतील..' अशी अवजड शब्दांची पेरणी असते. पण कोणतेही अभियांत्रिकी महाविद्यालय जाहिरातीत संशोधन किंवा स्टार्टअपपेक्षा नोकरी मिळालेल्या विद्यार्थ्यांची यादीच प्रमुख्याने दाखवते.

शिक्षणाच्या उद्दिष्टांनाच हरताळ

या देशातील हजारो शैक्षणिक संस्थांना तसेच या संस्थांवर लक्ष ठेवणाऱ्या एआयसीटीई, यूजीसी अशा सरकारी नियामक मंडळांना हे पक्के माहीत आहे, की कागदावर जरी आपला शिक्षण देण्याचा उद्देश महान असला तरी तो खोटा आहे. प्रत्यक्षात आपण कंपन्यांना लागणारे कुशल मनुष्यबळ (खरे तर कामगार) पुरवत आहोत. आताची महाविद्यालये, यांत्रिक पद्धतीने काम करू शकणारी, विशेषत: आयटी सेक्टरला आवश्यक अशी इंजिनीअर नावाची जमात तयार करत आहे. राक्षसी आकाराच्या कॉर्पोरेट कंपन्यांना आवश्यक स्वस्त कुशल कामगार पुरवणे हेच आयआयटीपासून ते गल्लोगल्ली उघडलेल्या खासगी फुटकळ अभियांत्रिकी महाविद्यालयांचे एकमेव उद्दिष्ट आहे. हे उद्दिष्ट समोर ठेवूनच मुले चार वर्षे अभ्यास करतात. बाजारातील मागणी पाहून अभ्यासक्रम निवडतात. अगदी अवांतर उपक्रमांतसुद्धा बायोडेटा सुधारण्यासाठी सहभागी होतात. वादविवाद स्पर्धांपासून समाजसेवेपर्यंत सर्व उपक्रमांत कंपन्याना हवे असणारे गुण (नेतृत्व, सांघिक भावना, संवाद कौशल्ये) संपादन करण्यासाठीच भाग घेतात. एकमेकांहून उत्तम असण्याचे दर्शविण्यासाठी पराकाष्ठा करतात. यामध्ये त्यांच्या मूलभूत प्रेरणा, आवडीनिवडी, इच्छा यांचा मागमूसही नसतो. देशभरातून दरवर्षी असे जवळपास २० लाख अभियंते नव्हे, यांत्रिक कामगार तयार होतात.प्राध्यापक तर मुलांपेक्षा अधिक अगतिक आहेत. कॉलेजच्या व्हिजन मिशन (?) ला सुसंगत अशी अभ्यासक्रम निष्पत्ती ठरवून आपापल्यापरीने शिकवत राहतात. मुलांनी परीक्षेत मिळवलेल्या मार्कांवर, ही उद्दिष्टे साध्य झालीत की नाही हे ठरते. तसे सरकारी नियामक मंडळांना दाखवलेही जाते. सध्या आयटी सेक्टरची चलती आहे, त्यामुळे बहुतांश विद्यार्थी, अभियांत्रिकी पदवी कोणतीही असो, आयटी क्षेत्रात नोकरी मिळवण्यासाठी आटोकाट प्रयत्न करतात. अशा वेळी विद्यार्थी चार वर्षांत संपादन केलेल्या ज्ञानाचा उपयोग करतच नसेल, तर ही महाविद्यालये, अभ्यासक्रम निष्पत्ती कशी दाखवतात, हाच संशोधनाचा विषय ठरेल.

सतत मूल्यमापन होत असते. बहुतेक ठिकाणी विद्यार्थ्यांचे मूल्यमापन करण्यासाठी सापेक्ष पद्धती असल्याने, विद्यार्थी कायम आपण वर्गात इतर मुलांच्या तुलनेत नेमके कुठे आहोत, हे जाणून असतात आणि सतत तणावाखाली असतात. या परीक्षांचा खरा उद्देश असतो मुलांची त्यांच्या हुशारी (?) प्रमाणे उतरंड लावणे. एकेकाळी शाळांमध्ये असे क्रमांक काढले जात असत आणि त्याकाळी महाविद्यालयांत केवळ पदवी किंवा प्रथम, द्वितीय वर्ग वगैरे मिळत. अशा क्रमवारीमुळे लहान मुलांना ताण येतो म्हणून ती पद्धत शाळांमध्ये बंद करण्यात आली आणि अभियांत्रिकी महाविद्यालयांत सुरू केली गेली. कारण नोकरी देणाऱ्या कंपन्यांना यातून उत्तम मुले, मध्यम मुले अशी निवड करणे सोपे जाते. या तणावाचा सामना करण्यासाठी शासन महाविद्यालयांनाला मानसोपचारतज्ज्ञ नेमण्याची सूचना तत्परतेने देते, मात्र शिक्षणाचा ढाचा मुलांना जगण्याच्या ताण्याबाण्यांना सामोरे जाण्याचा आत्मविश्वास देत नाही, हे मान्य करत नाही.

शासन जाणीवपूर्वक उदासीन

गेली २० वर्षे नैराश्याचा ऑक्टोपस या मुलांना विळखा घालत असताना शिक्षण मंत्रालय, यूजीसी, नॅक अ‍ॅक्रेडिशनसाठी येणाऱ्या ढीगभर समित्या, तसेच संस्थाचालक, सगळे शहामृगाप्रमाणे वाळूत डोके खूपसून बसले आहेत. याचे ढळढळीत उदाहरण म्हणजे यंदा अभियांत्रिकीच्या पहिल्या वर्षाला असलेले विद्यार्थी. करोनामुळे या मुलांची अकरावी, बारावी ऑनलाइनमध्ये गेली आणि याचा त्यांच्यावर जबरदस्त मानसिक परिणाम झाला. कित्येक जणांचा गणितीय पाया कच्चा आहे. त्यांना काळजीपूर्वक हाताळण्यासाठी एक तरी मार्गदर्शक पत्रिका शासनाकडून, शिक्षण मंत्रालय वा यूजीसीकडून आली का? यांत्रिक कामगारच घडवायचे असल्याने करोनाकाळ कधी आलाच नव्हता या पद्धतीने सरकारी बाबू लोक शिक्षणाचे यंत्र चालवत आहेत. शासनाला शिक्षण क्षेत्रातूनच काढता पाय घ्यायचा असल्यासारखी गेल्या काही वर्षांतील वागणूक आहे. म्हणूनच तर खासगी अभियांत्रिकी महाविद्यालयांच्या भरमसाट शुल्काला मान्यता देत असतानाच महाराष्ट्रातील सर्व (केवळ १०) शासकीय अभियांत्रिकी महाविद्यालयांमध्ये अपवाद वगळता गेली कित्येक वर्षे पूर्ण वेळ प्राचार्याचे पदही भरलेले नाही. प्राध्यापक भरती बंदच आहे.

उदासीनता अभियांत्रिकी महाविद्यालयांपुरती नाही. कनिष्ठ महाविद्यालये आता अभियांत्रिकी व वैद्यकीय क्षेत्रात करियर करू पाहणाऱ्यांसाठी जवळपास निरुपयोगी झाली आहेत. यालाही शासनाचे धोरणच कारणीभूत आहे. एकीकडे अभियांत्रिकी आणि वैद्यकीय महाविद्यालयांतील प्रवेशासाठी परीक्षा घ्यायच्या मात्र या परीक्षांची तयारी कनिष्ठ महाविद्यालयांतील प्राध्यापकांकडून करून घ्यायची नाही. बोर्डाचे महत्त्व कमी करत न्यायचे. यातून खासगी शिकवण्यांची मागणी इतकी वाढली की हे 'कोचिंग क्लासेस' स्वतःच शैक्षणिक धोरणावर प्रभाव टाकण्याइतपत मोठ्या कॉर्पोरेट कंपन्या बनले आहेत. क्लासेसना शे-दोनशे मुलांकडून लाखो रुपयांची फी वसूल करून असे दोन-चार हिरे(?) गवसतात ज्यांना आयआयटीसारख्या नामांकित संस्थेत प्रवेश मिळतो. या संस्था अनुदानित आहेत. भारत सरकारच्या एकूण संशोधनावरील खर्चापैकी जवळपास ६५ टक्के खर्च यांच्यावर होतो. परिणामी, आज गूगल, अॅपलसारख्या नामांकित कंपन्यांना देशातील अव्वल बुद्धिमत्तेचे तरुण कामगार म्हणून सहज मिळतात. तेही शासकीय (म्हणजे जनतेच्या) खर्चाने. दुसरीकडे त्या क्लासेसची कोट्यवधींची उलाढाल सुरू राहते, तीसुद्धा सामान्य जनतेच्या पैशाने. पण यावर शासन जाणूनबुजून गप्प आहे, कारण भले संविधान शिक्षणाला मूलभूत हक्क मानत असले तरी शिक्षण हाच एक 'बाजार' आहे हे लोकांमध्ये बिंबवायचे आहे.

निरागस मुले आणि द्वेषाचे बीज

'स्पर्धा जीवघेणी आहे, फक्त उद्दिष्टावर लक्ष द्या, इतरांच्या पुढे जा', हेच विद्यार्थी ऐकत असतात. यातून अमानुष कुरघोडी करण्याची वृत्ती निर्माण होते. भारतातील जातीय उतरंड, मुलांना एका चौकटीबाहेर विचारही करू देत नाही. चार हजार वर्षांपूर्वीची वर्णव्यवस्था इतकी रक्तात भिनली आहे की सामाजिक विषमता ही जणू नैसर्गिकच आहे, फक्त आर्थिक निकषांवर आरक्षण दिले की पुरे असा युक्तिवाद असतो. एकलव्य, कर्ण, शंबुक यांचे वैदिक संस्कृतीने बळी घेतले ते गरिबीमुळे नव्हेत, तर सामाजिकदृष्ट्या मागास असूनही उच्चवर्णीयांशी बरोबरी करू पाहात होते म्हणून! शिक्षणात सर्व सामाजिक घटकांना प्रतिनिधित्व मिळावे, यासाठी संविधानाने आरक्षणाची तरतूद केली, पण भारतीय संविधान समाजात पुरेसे न झिरपल्याने हे या मुलांच्या आणि पालकांच्याही गावीच नाही. प्राध्यापकसुद्धा याच किडलेल्या समाजाचा भाग असल्याने तेही पूर्वग्रहदूषित! त्यामुळे दलित आदिवासी मुले अडचणींवर मात करत या संस्थांमध्ये पोहोचली की या द्वेषाची बळी ठरू लागतात. अशी अमानुष यंत्रे तयार करणारी ही शिक्षण व्यवस्था उद्दिष्टांपासूनच बदलायला हवी. नवीन शैक्षणिक धोरणानेही याबाबत ठोस भूमिका न घेता फक्त शब्दांचे फुलोरे फुलवले आहेत, हेदेखील खेदाने नमूद करावे लागत आहे.

(पूर्वप्रकाशन: ०२ मार्च, २०२३- लोकसत्ता वृत्तपत्र)

~ प्रा. डॉ. स्वाती लावंड

The Royal and her Relations

24 February, Di Remembers

She felt pain

What had she gotten herself into?

What was the sound she heard?

Why had the time stopped?

In the wake of the midnight hour,

When the demon residing in her fate becomes her mind,

When the voices she heard inside became hers,

And When the music she listened to,

No longer killed them,

Fear grapples her fiercely,

Di wonders, What is she doing?

What is she becoming? The darkness engulfs her,

What is happening?

She chuckles to herself,

Has her only shadow left her alone?

Has she been abandoned yet again?

Her heart speaks up then,

Be easy

There is an angel in disguise

To give you wings

To let you fly

As she embraces the thought of an angel

The demon of her mind slaps her with reality

The illusion of forever happiness,

The star that glittered bright,

The wings that soared high,

Turn into a nightmare finally,

She peaks the zenith on 31 August.

As she walks from hell to heaven She asks him,
"what was the purpose, what was the truth, was
she the Royal, or was she a relation between the
angel of her heart and the demon of her mind?"

~ Rajlakshmi Gaikwad
T.Y. CIVIL

"Sargent"

Daylight begins with my mama's siren,
For the call of breakfast downstairs waiting.
With the bowl of cereal and cream of wheat ready,
Enough for the day to make me a penny.

Life was easy and joyful too,
Until the world war was declared by some fanatical fools.
Everything has changed since the month of July,
Mama was in the factory, and I was in the bootcamp.
There were many like me, but juveniles within,
Someone's son, brother, and husband indeed.
Cochies were given a pale white feather,
Refusing to join the army was considered a coward.

We're trained for something they want to accomplish,
We're maltreated in the name of peace and tranquility.
Coz' democracy was a thing not born yet,
Civil wars and genocides were at every end

Christmas has passed and we're sent to the frontlines,
With a few months training to campaign on the east side.
Accepting our fate with the allies we marched with,
For the miles of distance, torn boots walk.
With Aussies, Doughboys and the blighties on backup,
To fight the boches for the endless bloodshed.
Gallipoli was going to be the biggest graveyard yet,
Coz' were killing our own brothers in the war we never meant.

No difference left between day and night,
Insomnia has eaten us the whole inside.
Though we are soldiers, we have our lives too,
With the game of rugby and wrestling with the troops.
Boiled beef and pork that's all we eat,
Still better and tastier than rations and steak.
Occasionally, a gin or a couple of cigars
With the closest pal among the rest of all.

War was about to end, but our battalion has fallen,
I was left injured, and my companion was shot dead.
Though we lost, the Kaiser's war was over,
I was back to my old mama with the supreme soldier medal.
Some got their loved ones back,
While some received an empty tomb.
Neither peace was established nor the people were united to one,
Mass genocides of the poor innocents were the only outcome.

~ Maitrey Mohite
F.Y. Civil
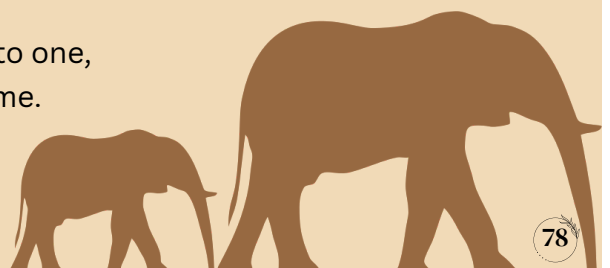
लढणे हेच जीवन

प्रगती कर तू अशीच पुढे
हिरमुसून कधी जाऊ नको
यश - अपयश येतच राहतील
लढायचे तू सोडू नको

नागमोडी वळणावर या
यशाचा मार्ग सर करत रहा
येतील मध्ये काटेरी झुडूपेही
परीक्षा समजुनी देत रहा

साथ माझी नेहमी असेल तुला
स्वतःला एकटी समजू नको
पंख फुटूनी आभाळ गवसले तरीही
धरतीला या विसरू नको

झळकत रहा सूर्यासारखी
तुझ्या प्रकाशात उजळू दे जग हे
ध्रुवताऱ्या सारखी चमकत रहा
अढळ कर तुझे स्थान हे

~ **विशाखा खराडे**
(T.Y. Electrical)

मराठी
कविता

कितीदा नव्याने?

कितीदा नव्याने तुला आठवावे
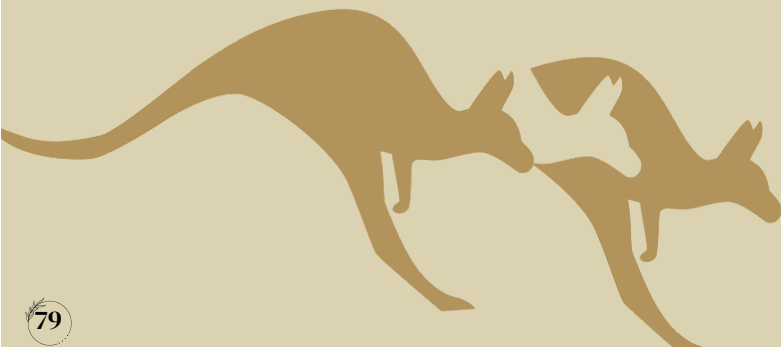डोळ्यातले पाणी नव्याने वाहावे

किती गीत गावे तुझे मी मुक्याने
किती स्वप्न पहावे मी माझे धुक्याने
किती जिंकूनी मी नव्याने हरावे
कितीदा नव्याने तुला आठवावे

किती पहावे मी नवे चित्र अपुले
सुटावे जे बंध जीवापाड जपले
किती राहावे तुझ्यावाचून एकले
कितीदा नव्याने तुला आठवावे

किती थांबवावे मी माझ्या मनाला
किती थकूनी सावरावे स्वतः ला
किती रडूनी मी नव्याने हसावे
कितीदा नव्याने तुला आठवावे

किती करावे हे सुखाचे बहाणे
किती सहावे हे विरहाचे आसवे
आता तूच सांग मी काय करावे...
कितीदा नव्याने तुला आठवावे...?

~ **सायली कथोरे**
(T. Y. Electrical)

वक्त-वक्त की बात है

ए जिंदगी तुझसे नाराज है में,
तेरे मुसिबतों का हमराज़ हूँ मैं,
मुसिबतों को मुझसे इस कदर प्यार है
जैसे उनके शब्दों का अलफ़ाज़ हूं में ||
बेवक्त सताते है मुझे,
हर दम डराया करते है मुझे,
पर क्या करें प्यार जो हो गया है मुसीबतों से
बुरे वक्त में छोड़ा करते नहीं है ये मुझे ||

सपने दिखने से भी डर लगता है,
मुरा करने का हौसला नहीं है,
पूरा करने जाऊ जब इसे
तो वक्त भी कहे "भाई मेरे पास वक्त नही"
वो तोह शुक्र है बुरे वक्त का,
इसके नाम पर ये जिंदगी कट रही है,
अब उम्मीद भी हवाओं में सिमट रही है,
कैसे बताऊँ साहब जिंदगी तो बस कट रही है
क्योंकि ये वक्त-वक्त की बात है||

रीशतेदारो की नजर कुछ इस कदर है
की जैसे मेने उनसे किडनी माँग ली हो
पुछते तो ऐसे जैसे कुछ उधार ली हो,
"ओर बेटा काम पर जाता है, कितना कमाता है" पीट पीछे कहते है,
"इसको आता ही नहीं है, इससे होता ही नहीं है
काम नही करता, काज नहीं करता,
इसको पड़ी ही नहीं है, इसको करना ही नहीं"
खैर छोड़ीए मुझे फर्क नही पड़ता क्योंकि अपना वक्त तो आएगा, आएगा ना?

अब तो कुछ करना है जिंदगी में,
मा-बाप को घर भी तो दिलाना है,
सपनों को पूरा कर ऊंचाई तक जाना है।
करू ऐसा जिससे भाई बहेन को नाज हो,
गुमनाम शहर में तारीफों की शहनाज़ हो ||
रिश्तदार भी ताली बजाए अपनी सफलता के लिए
इतना नाम कमाना है,
जलते हुए मुह नाराज चहरे क्यों करेंगी रोश्तेदारों की
तकलीफें जब अपना वक्त आएगा |||
दख भाई डरना नहीं, खूली आखो से हकीकत देखना सपना नहीं, क्योंकि वक्त किसीका मोहताज नही ||
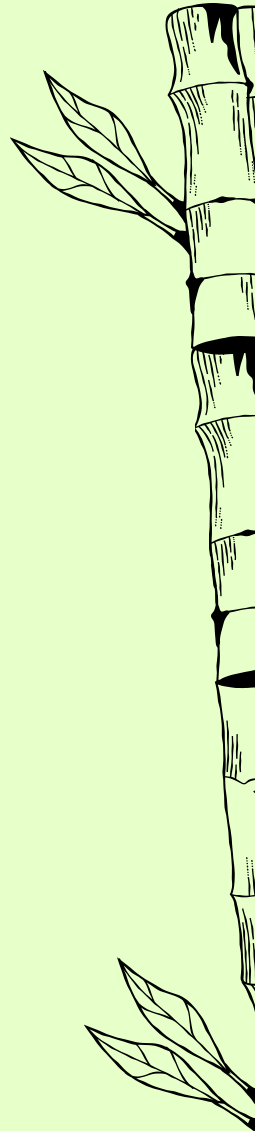
~ सचिन शाह
(F. Y. Civil)

हिंदी
कविता

पल

कहने को है बाते कईं जो चाहकर भी कह ना पाओगे
गुजरते बीतते लम्हे के साथ ख्याल ये भूल जाओगे.....
शायद इन बीतते लम्हों में खुदको ढूंढते रह जाओगे
आयेगे वो भी दिन जब फ़िरसे तुम मुस्कुराओगे.....

~ ऋषिकेश पड़वल
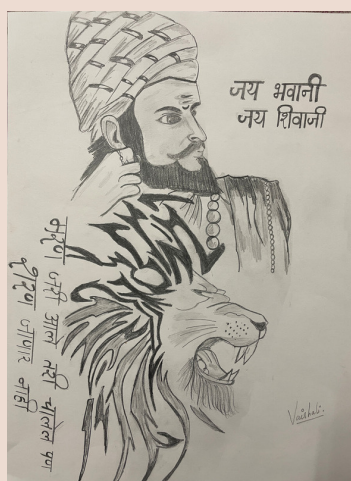(T. Y. Mechanical)

Artworks

Bhiva Jethe
S.Y. Mechanical

Meghna Nilange
T.Y. Civil

Mitali Toke
T.Y. Civil

Mitali Toke
T.Y. Civil

जय भवानी
जय शिवाजी

Vaishali Lagad
S.Y. Civil

Diti Vishwakarma
F.Y. Electrical

Yash Patil
T.Y. Electrical
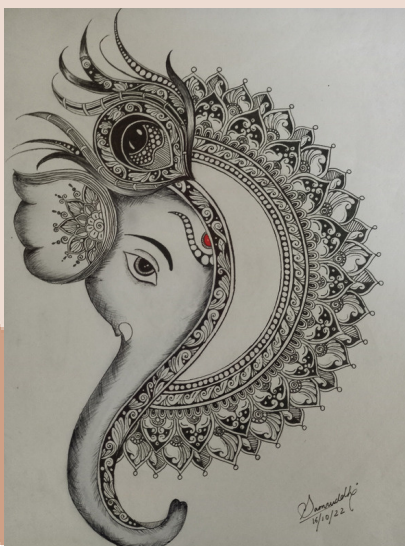
Samruddhi Bodhe
F.Y. Civil

Maitrey Mohite
F.Y. Civil

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'Saving one animal wouldn't change the world, but it will change the world for that animal'

Photo by: Digvijay Londhe