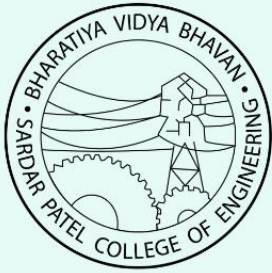


BHARTIYA VIDYA BHAVAN'S  
SARDAR PATEL COLLEGE OF ENGINEERING

ZEAL

**DISHA' 21**





**BHARATIYA VIDYA BHAVAN'S**

**SARDAR PATEL COLLEGE  
OF ENGINEERING**

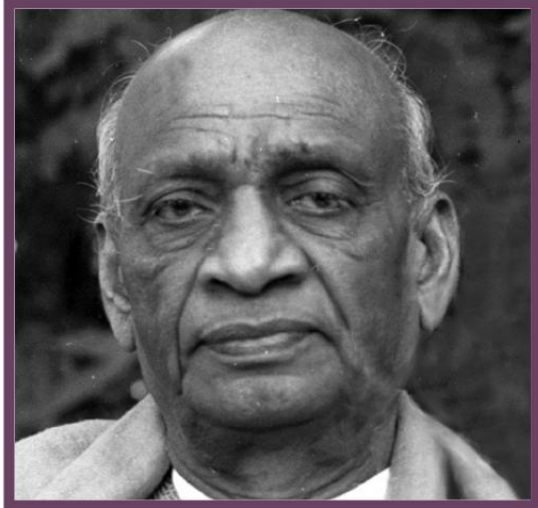


# ZEAL



# DISHA 2021

***Disclaimer: All the views expressed in the articles and poems in the magazine are the opinions of the individual writers and not of the institution. The institution does not hold any responsibility regarding any matter written by the students.***



**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

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# FOREWORD

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**W**e are proud to present the newest edition of SPCE's annual magazine - DISHA. We have made DISHA 2021 with an objective of keeping the spirit of SPCE alive amongst its students and faculty alike. We were successful in maintaining the legacy of our beloved DISHA in these tough times with the help of our wonderful magazine team.

This year, DISHA has entered into its 40th year of running. DISHA has been encompassing the varied themes of SPCE across four decades, witnessing a generational shift since its inception. The readers have to keep in mind that this edition was made entirely during the Covid-19 pandemic period. This edition is different from the previous ones, in the sense that it has documented an entire year spent virtually.

We were all the more motivated to put this edition out for the students, especially in this period, and this drive gave birth to our - ZEAL. We chose 'ZEAL' to represent our enthusiasm and hope to make something from the ground up for the students. We want this edition to give an ode to 40 years of DISHA, an ode to the very first batch of final-year students who completed their graduation in a unique way, and an ode to a year that we will always remember - because we got through it together.

We would like to extend our gratitude to our respected Principal sir and Dr. Shyamelee Solanki, Chairperson of the Student Welfare Committee, for providing us with constant support and guidance throughout the process of making this edition.

We are grateful to our fellow Council members for helping us create accurate accounts of the activities conducted during this academic year. Lastly, we are extremely thankful to our magazine committee, who poured in all their efforts to make this edition possible.

We hope as you turn through these pages, you are reminded of the ZEAL that lives on within us and the people around us, for it is that which makes us believe that things can be better.

RAFID NAZIR & JUI KARMALKAR  
MAGAZINE SECRETARIES,  
STUDENT COUNCIL

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# FROM THE PRINCIPAL'S DESK

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 for meeting the growing demand for engineering talent, and for onward growth and betterment. This is evident from the NIRF ranking received by the institute in the past few years, which has given us an elite ranking. The Civil Engineering and Mechanical Engineering under-graduate programmes have been accredited by the National Board of Accreditation (NBA) up to June 2022. SPCE is one of the 192 institutes in India and 17 institutes in Maharashtra selected for the third phase of Technical Education Quality Improvement Programme (TEQIP – III) and has also undertaken mentoring Rewa Engineering College, Rewa, Madhya Pradesh under TEQIP.

SPCE is now entering its 11th year of autonomy, and the institute has successfully completed the academic year 2020-21 via the online teaching-learning mode in light of the Covid-19 pandemic. We have implemented various teaching tools to ensure that our students receive a seamless education in the online mode.

Our professors and the supporting teaching staff of SPCE have worked hard toward implementing courses and programs which play a major role in improving the technical skills and also, in the overall development of the students.

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. The supporting staff engage in several developmental courses and strive to implement better practices amongst the students and professors alike.

The institute has always prioritized the overall development of its students. Our students have participated in various national-level competitions and emerged successful. The students have also organized the technical and social events – like SPECTRA, SPACE, SPIRIT, Annual Debate competition, in the online mode in this academic year.

Students are playing a vital role in various government schemes like Unnat Bharat Abhiyan (UBA) and Unnat Maharashtra Abhiyan (UMA) acting as enablers to execute project objectives.

# ANNUAL REPORT

Our institute was established in 1962, and we have completed 59 years till date. SPCE was granted autonomous status by the Universal Grants Commission (UGC) in June 2010. We are proud to present the 59th Annual Report of our Sardar Patel College of Engineering. The following is a summary of all the activities conducted in the academic year 2020-21.

## **Civil Engg. Dept. Annual report 2020-21**

### **1. Training programmes organized:**

- Software training organised on March-April 2021 on “ETAB & STAAD.PRO Software” by Dr A.A. Bage, Prof. Ankit Asher with Naresh Mistry (B.Tech/M.Tech).
- Training programme organised on April 2021 on “Design of machine foundation for industrial equipment’s” by Prof. Ankit Asher with Medha Moghe (M.Tech).

### **2. Guest Lectures by Experts from Industry/Institute Organized (03):**

- Guest lecture organised on 19th March 2021 on “GPR and its applications” by Prof. G. Venkatachalam, Former Professor and Head of Civil Department, IIT Bombay.
- Guest lecture organised on 30th July 2021 on “Contract administration” by Dr. Kirti Dave/ Dr. Vandana Bhatt from Techno Legal Consultant.
- Two guest lectures were organised by Dr. Kirti Dave/ Dr. Vandana Bhatt from Techno legal Consultant.

### **3. Faculty Achievements:**

- Received Indian Patent from Government of India (Patent No. 349375 date 25.10.2020) for Innovation on “Earthen material-based cathode separator assembly for scalable Bioelectrochemical system” (805/KOL/2013 dated 05/07/2013) (Dr. A. N. Ghadge)
- Received Certificate of an Eminent speaker for a delivered expert talk in eFDP on ‘Waste to Bio-energy (Dr. A. N. Ghadge)
- Research Project completed development of Bio-electrically assisted microbial Reactor to reduce air pollution and energy recovery from wastewater (Dr. A. N. Ghadge)
- Dr. A. R. Kambekar Member Board of studies (BOS) Civil Engineering: SVKMs NMIMS MPSTME Mumbai (Deemed University)
- Dr. A. R. Kambekar Member BOS Civil Engineering: SVKMs SBM Polytechnic Mumbai (Government Aided)
- Dr. A. R. Kambekar Advisory Board member: SSJCET Asangaon Dist. Thane (Mumbai University)
- Dr. A. R. Kambekar Advisory Board member Civil Engineering: TCET Mumbai (Mumbai University)



# ANNUAL REPORT

- Dr A. R. Kambekar PhD. PET paper setters panel member: University of Mumbai
- Dr A. R. Kambekar Students Mentor: IITB Alumni Students mentorship programme Cell.

#### 4. Faculty members attended seminar/workshops: (Total = 07)

- No. of Faculty registered for SWAYAM courses: 03
- No. of SWAYAM courses completed by Faculty: 02
- No. of workshop/FDP/Course attended by Faculty: 02

#### 5. Student Achievements:

- No. of Final year students passed for GATE-2020: 28
- No. of students got Placement to campus (2019-20): 13
- No. of Final year students passed GRE: 01
- No. of Final year students passed CAT: 01
- Expert Talk organised through CEA: 01

#### 6. Result Analysis:

No.	Class	Pass percentage
1	M. Tech (Structural)	89.47
2	M. Tech(Construction Management)	100
3	B. Tech (Civil)	97.44
4	T. Y. B. Tech (Civil)	94.44
5	S. Y. B. Tech (Civil)	98.65
6	F. Y. B. Tech (Civil)	60

#### Electrical Engg. Dept. Annual report 2020-21

- 1. Guest Lectures:** These lectures were delivered by experts from industry and reputed academic institutes to update students with the advances in technology. Topics covered in these lectures were: 16 and 32-bit Microprocessors, Machine Learning, Artificial Intelligence, PLC and HMI, Sustainable Development, PMU and WAMS and many more. Few laboratory sessions in BEE I and Power System II were conducted by research scholars pursuing Ph. D. from IIT Bombay which helped students learn new simulation techniques.
- 2. Workshops for students:** Topics covered were Neural Network, AI and Machine Learning using Python and Beginner's Guide to Python.
- 3. Student Achievements:** 39 students appeared for the GATE examination and 8 students have qualified for the exam.
- 4. Placements:** More than sixty per cent of students are placed at various companies like L&T, Siemens, Jacob Engineering, Lodha Group, TATA Power, Reliance Industries.

# ANNUAL REPORT

## 5 Summary of AICTE/TEQIP Mandate Information during 2020-2021:

- Number of research conferences attended online = 06
- Number of STTP/Workshops attended online by faculty = 23
- Number of workshops conducted for students = 02
- Number of guest lectures arranged = 13
- Number of technical publications in international conferences = 06
- Number of new courses offered in 2020-2021 = Regular: 02 Professional Electives: 01
- Number of ICC constituted for courses taught by faculty = 04 UG
- Number of students who appeared for the GATE examination = 39

## 6. Result Analysis:

No.	Class	Pass percentage
1	M. Tech (Power Electronics)	100
2	B. Tech (Electrical)	100
4	T. Y. B. Tech (Electrical)	89.71
5	S. Y. B. Tech (Electrical)	90.52
6	F. Y. B. Tech (Electrical)	86.76

## Mechanical Engg. Dept. Annual report 2020-21

- Awards received by faculty members and researchers:** National Productivity Award 2021 (Platinum category), received by Dr. Subhash K. Mahajan (faculty), Dr. Santosh B. Rane (faculty) and, Mr. Bhaveshkumar N. Pasi (researcher), and National Productivity Award 2021 (Gold category), received by Dr. Subhash K. Mahajan (faculty), Dr. Santosh B. Rane (faculty) and, Dr. Prathamesh R. Potdar (researcher). Best Thesis Presentation Award, received by Mrs. Shivangi Thakker (researcher, under the guidance of Dr. Santosh Rane) and Best Paper Presentation Award, received by Mr. Yogesh Kishor Mogal (researcher), along with Co-authors: Dr S.K Mahajan, Dr Santosh Rane.
- PhD receivers:** Dr. Shivangi Viral Thakker, Dr. Prathamesh R. Potdar and Dr. Yahya AM Narvel (under the guidance of Dr. Santosh Rane)
- Patents received:** Santosh B. Rane, Bhaveshkumar N. Pasi and Subhash K. Mahajan (2021), “A Method for Performing Forging Operation: A Perspective of Industry 4.0”, DOI:10.2174/2212797614666210120110548, Recent Patents on Mechanical Engineering, 2021, 14, 00-00 Bethemscience Publications.

## 4. Faculty achievements:

- Dr. Sudhakar Umale has been working as Advisory Committee Member in Student Convention SAEINDIA Western section from 21 Dec. 2020. He has worked as Judge in “Final Round of Technology Innovation Forum for Agricultural Nurturing (TIFAN) – an SAEINDIA National level student competition for Design Jan-Feb. 2021, and as a Judge for evaluation of divisional level Rise Competition of Mahindra and Mahindra conducted on March 15, 2021 at Kandivali Plant, Mumbai.
- Dr. Kiran Bhole has obtained a grant of Rs. 93000/- for conducting AICTE’s ATAL sponsored faculty development program on “Micro-electromechanical Systems”.
- Prof. Sachin Vankar’s abstract has been accepted by MECHCOMP7–7th International Conference on Mechanics of Composites in Porto (Portugal) organized by Instituto da Construção, Porto (Portugal). An online presentation is scheduled on 1-3 Sept, 2021.
- Prof. Kunal Y. Bhavsar was elected as Youth Chair in ISHRAE Mumbai Chapter for Society Year 2020-21, and as Young Engineer in ASHRAE for ASHRAE Mumbai Chapter for Society Year 2020-21.
- Prof. Megha Janbandhu has successfully submitted her Ph.D. pre-synopsis.
- Prof. Parag Muley has successfully Delivered presentation on Professional Etiquettes as invited panel discussion speaker in Webinar Professional Etiquettes Development by National Institute of Technical Teachers’ Training & Research (NITTTR), Bhopal, 16 /07/2020 [On-line].

## 5. Faculty achievements summary:

- No. of webinars and workshops conducted for the students: 25
- No. of training/faculty development programs attended: 11
- No. of webinars/interactive sessions participated in: 15
- No. of short-term courses attended: 20
- No. of expert lectures delivered: 29
- No. of courses completed by faculty members on Swayam/NPTEL portal: 2
- No. of courses coordinated: 1
- No. papers published in national and international journals, peer-reviewed publications: 74
- No. of workshops attended by faculty members: 13

# ANNUAL REPORT

## 6. Result Analysis:

No.	Class	Pass percentage
1	M. Tech (Machine Design)	100
2	M. Tech (Thermal Engineering)	100
3	B. Tech (Mechanical)	97.26
4	T. Y. B. Tech (Mechanical)	100
5	S. Y. B. Tech (Mechanical)	93.24
6	F. Y. B. Tech (Mechanical)	91.89

## Student Achievements 2020-21

1. Ms. Saloni Chandrashekhar Raut from F. Y. B. Tech Mechanical has participated in the inter-collegiate poster-making competition held on April 9th 2021 at Anjuman-I-Islam's M.H. Saboo Siddik College of Engineering. Her poster on "Save Water Save Life" has secured 2nd place.
2. Ms. Shweta Godbole of F. Y. B. Tech Civil has participated in the flagship event "Jazbaa" conducted by Performing Arts Club, Institute of Chemical Technology (ICT). She has secured the 1st place and a cash prize of ₹8000 in the Scen-cere Writing event.
3. Mr. Yash Khiste and Ms. Aparna Pathak from S. Y. B. Tech Electrical have participated in the National Mathematics Application Project Competition. Their project report has secured the 1st place in the competition.
4. Mr. Rickson Irudayakani Arasan has made the official world record in his attempt to make a "Facial Recognition App" using Python.

## TEQIP-III

1. Our institute has conducted the following activities under the third phase of the Technical Education Quality Improvement Programme (TEQIP – III):
  2. 1. TEQIP – III sponsored National Level Programme on Reform in Technical Education: Perspective of National Education Policy from 4th to 6th March 2021.

## ACCREDITATION

The institute has received accreditation by the National Board of Accreditation up to June 2022 for the undergraduate Civil and Mechanical Engineering Departments

## **Students who have secured admission in MS programme:**

1. Mr. Kiran Naik from B. Tech Civil dept has been accepted for M. Tech in Civil Engg program at Indian Institute of Science (IISc), Bangalore.
2. Mr. Mithilesh Raikwad from B. Tech Civil dept has been accepted for MBA program at IIT Bombay - Shailesh J. Mehta School of Management.
3. [\*] Mr. Aniket Shinkar from B. Tech Civil dept has been accepted for MS in Advanced Construction Management at NICMAR.
4. Mr. Akash Munjani from B. Tech Civil dept has been accepted into Lakehead university for MSc in Civil Engineering program.
5. Ms. Anuja Damodar from B. Tech Electrical dept has been accepted into Purdue university for MS in ECE – Power and Energy systems.
6. Mr. Aakash Deshpande from B. Tech Electrical dept has been accepted for MS Research in Electrical Engineering at IIT Indore.
7. Mr. Aman Kundra from B. Tech Electrical dept has been accepted into XLRI Delhi-NCR for Post Graduate Diploma in Business Management.
8. Ms. Sanskruti Takalkhede from B. Tech Electrical dept has been accepted for MBA program at IIM Lucknow.
9. Ms. Vanshika Sangidwar from B. Tech Mechanic.
10. Ms. Girisha Agrawal from B. Tech Mechanical dept has been accepted into Cranfield university, UK for MSc in Advanced Motorsport Engineering.
11. Mr. Faiz Khwaja from B. Tech Mechanical dept has been accepted into University of Southern California, Northeastern University for MS in Data Science.
12. Ms. Aboli Patil from B. Tech Mechanical dept has been accepted into North Carolina State University for MS in Industrial Engineering.
13. Mr. Viraj Patil from B. Tech Mechanical dept has been accepted into Wayne State University for Master's in Mechanical Engineering.
14. Mr. Aash Shah from B. Tech Mechanical dept has been accepted into Clemson University for MS in Automotive Engineering.
15. Mr. Ameya Gidh from B. Tech Mechanical dept has been accepted into Northeastern university for MS in CS Align.
16. Mr. Rahul Kapse from B. Tech Mechanical dept has been accepted into IIT Madras for Direct PhD in Aerospace Engineering.
17. Mr. Vedant Rade from B. Tech Mechanical dept has been accepted into IIT Indore for MSc (Research) in Mechanical Engineering.

# FACULTY ADMIN



**DR. M.M. MURUDI**

I/C PRINCIPAL  
HOD, CIVIL



**DR. ANUPAMA SABNIS**

HOD, ELECTRICAL



**DR. SUDHAKAR UMALE**

HOD, MECHANICAL

# STUDENTS' WELFARE COMMITTEE



*Dr. Shyamlee Solanki*  
CHAIRPERSON



*Ms. Divya T. A.*



*Dr. Jayram V. Gholave*



*Dr. Nandkishor W. Kinhekar*



*Dr. B. N. Bhasme*

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## SPCE STUDENTS' COUNCIL

### General Secretary

Avinash Kichloo

### Cultural Secretary

Nikunj Dholay  
Piyush Waman

### Technical Secretary

Kalpesh Malpure  
Pranav Patil  
Gayatri Patil

### Magazine Secretary

Jui Karmalkar  
Rafid Nazir

### Sports Secretary

Dakshata Patil  
Mayank Nagrale  
Karan Pandita

### Finance Secretary

Mayur Nare  
Karan Desai

### Literary Secretary

Sakshi Tambat

### Ladies Representative

Vaishnavi Satvekar  
Bhagyashri Mahalle

### Creative Heads

Mansi Naik  
Tushar Zemse

# General Secretary's Address




The academic year 2020-21 was different in every aspect. This year things got transitioned from offline to online mode. This year started with forming the Student Council, wherein I got the opportunity to serve as General Secretary of this prestigious institution. Along with the excitement and joy, everyone who got nominated felt a sense of responsibility. The Student Council was formed on September 27th, 2020. And I was elected as the General Secretary for the academic year 2020-21.

Once the Student Council began its term, we realized the students were confused about how the activities and fests will be conducted. So, we conducted a meeting with students from all the branches and assured them that like every year, this year too, we will have our annual fests. We all were very clear with our goal - we did not want to miss out on anything.

We realized the importance of social media, so we developed our social media platforms. We also started a new Instagram page for the students of SPCE for students to showcase their talent. We started a new club for students interested in programming. In addition to this, we also encouraged our established clubs - SPARKLE (fashion club), Speakers' Club, to function in the online mode by ensuring their participation in college fests.

We started our journey by planning an online farewell for our previous Council to thank them for their contributions. During Navratri, we arranged a contest called "Garba Raas" to recreate the feel of Garba Night. The performances were judged by celebrities. Then came the SPCE Annual Debate - we got to witness an array of engaging debates that were enlightening. Later we organized the 'Canvas Your Life' art competition for the emerging artists of our college. For people interested in sports, we organized an online Chess competition. All of these events saw great participation from the students. Then came the most awaited event for all the first years - the Freshers' party 'PRARAMBH', which was conducted in online mode but still we were able to recreate the ambience of our quadrangle. While all these events were happening, we were also working on the Annual Fests of our college which were organised together for the first time. SPCE Annual Fests began from February 27th to March 7th.





However, before the actual fests commenced, we organised Pre-SPECTRA - A Robotics workshop & Pre-SPACE - A Stand-up comedy show by a famous comedian.

Then, finally, the fests started with the Inauguration ceremony on February 27th where all the dignitaries were present and gave us their best wishes. SPECTRA - the Annual Technical Fest was held on February 27th and 28th. This year we introduced many new events which saw participation from almost all major colleges across India. With the theme 'Expanding Horizon', we were able to maximize participation by having international participation too. Then came SPIRIT - the Annual Sports Fest of SPCE from March 1st to March 5th with the theme 'Refuse to Lose'. We were able to make people get up from their position and work on the ground. Here also we had introduced new events and made use of the technology.

Then came SPACE - the Annual Cultural fest of SPCE with the theme 'Tradition Meets Trend', where we took our major events like VOGUE, Step Up, Swaranjali, Debates and many more on the online mode. A lot of celebrities came to judge our events. To celebrate and cherish the women in our lives, we celebrated International Women's Day on March 8th. We had competitions and workshops for girls. We also started a series where women working in different fields shared their experience with us. In the end, After-SPACE was conducted on March 13th, where all could relax and enjoy the show. All the students have worked very hard.

I want to extend my sincere thanks to SPCE for giving me this opportunity to serve as the General Secretary. My sincere thanks to our Principal Dr M.M. Murudi, our beloved Chairperson Dr Shyamlee Solanki, Members of the Student welfare committee. I would also like to thank the teaching and non-teaching staff for their valuable support and encouragement.

I was truly incomplete without my team. I want to extend my appreciation to the Council members, extended Committee members and all the students for being there whenever needed and making the year 2020-21 a memorable one.

- Avinash Kichloo

# ALUMNI INTERVIEW

*with*

## YASHODEEP PATIL

B. Tech Civil Engineering, 2020 batch



*Yashodeep has received Permanent Commission in the Flying Branch of Indian Air Force through the Combined Defence Services Exam 2019.*

**Q. What are you currently pursuing? Where are you located?**

**A:** I am currently undergoing training in the Air Force Academy, Dundigal. I have completed my stage 1 training and I'm a qualified pilot on Pilatus PC-7 Mk II aircraft. I will be commencing stage 2 training shortly.

**Q. What inspired you to apply for the defence academy after completing your graduation? How was it different from mainstream engineering?**

**A:** I had always dreamt of being a civil servant. But I was comfortable going into the defence sector as well. As I was not eligible for the Civil Services exam during my 3<sup>rd</sup> year of engineering, I applied for the UPSC CDSE exam. The syllabus and

exam pattern of these exams are completely different from that of engineering exams. These exams focus on varied domains such as Math, GK, Science, History, Geography, etc. rather than focusing on a single subject. Hence, the preparation needs to be extensive and the basics of all subjects need to be studied

**Q. In what sense has your background in Civil Engineering helped you in the academy? How did your work experience in this field shape you?**

**A:** Civil Engineering and Aviation, are completely different fields. Hence, except for some random topics like

Boundary Layer (Fluid Mechanics) in the subject of Aerodynamics, nothing is the same in both fields.

**Q. How has your experience studying at the premium defence academy been? Tell us about the academic environment, peers, internships, placements, extra-curricular activities or any other noteworthy events.**

**A:** The academic atmosphere here in the Air Force Academy is very different from that of the civil world. One simple rule is to be followed here: Right Place, Right Time, Right Rig (Uniform). The most important thing which is taught when a cadet comes here is discipline. The trainee is introduced to an organized and ordered way of life. Almost everything, right from waking up early, keeping the room in an ordered state, eating with the right cutlery, different uniforms for parade, dining hall, games, lectures, etc. is fixed. Even the lights out timing is fixed at 22:00 hours.

There was a big transition in me after coming to this academy. I understood the value of time and discipline here. Once I started my flying training, the best in me was explored. My situational awareness, decision making skills, and pressure handling was tested during my sorties. As the training progressed, I became more confident and started enjoying flying. The feeling I get while flying solo at 14,000 ft. above the clouds at 200 miles per hour, cannot be expressed in words.

**Q. Any advice for budding civil engineers? Could you give us some insight as to how students can be better equipped to transition to professionals?**

**A:** The Golden Rule which I follow is, 'Get your priorities straight'. Once you know what your goal is, you just need to prioritize things in your life. Don't have any second thoughts while giving small sacrifices for achieving your goal. Always have the bigger picture in mind.

**Q. Please share with us some fond memories from your student life in SPCE. How did these years shape you?**

**A:** The time I spent in SPCE was one of the most memorable times in my life. Discussions with friends held on the lake in campus, watching IPL matches together in the hostel, the Ganeshotsav celebrations, the unorganized weekend trips by REBELS to forts, events like this will be etched in my memory forever. Various events, especially SPACE, used to be a fun time. Also, the nail-biting tug-of-war and volleyball matches were quite suspenseful. But the most important thing which SPCE gave me is this: friends - worth dying for.

# Youth Empowerment

Youth empowerment is a broad term used for defining the process of improving the quality of life of youth. But before getting into the process and programs under this process, let us understand the need and importance of this process. India is the youngest nation - with an average age of 29 years and around 60% of the population under 35 years of age. But the stats are not very positive here - around 42.6% of the youth are unemployed or working yet living under poverty, and figures are worse in rural India. India has 17.7% of the world population yet contributes only 3.9% to world GDP. Now all these stats show the void we have in our system. So, to bridge this gap, various social activists and the government tossed the term **YOUTH EMPOWERMENT**.

According to Wikipedia, it is the process where children and young people are encouraged to take charge of their lives. Youth empowerment is important in India, or any other country because the youth are the pillars of a country. They are the future of the nation. Any nation can only be sustained if its youth are well educated, highly skilled, capable of doing business and following the socio-cultural practices of the nation. Youth Empowerment allows children and young people to explore, discover and develop their skills and strengths. It improves their access to resources and transforms their consciousness by building a growth mindset, positive thoughts and a strong belief system. Youth Development is a subset of it that follows a 5C's model that focuses on emphasizing competence, confidence, connection, character, caring and contributing to society. A few of the major objectives of Youth Empowerment are civic engagement, democracy building, intergenerational equity and poverty alleviation. It is making youth self-reliant and responsible and works on holistic development for building a stronger independent community.

Various programs are functional in India working on youth empowerment - one such program is a mid-day meal which supports and encourages the youth to receive education by providing nutritious healthy food daily at schools. Many NGOs are working on skill development and vocational training of youth by providing an equal opportunity to underprivileged people. Social activists like Malala Yousafzai are fighting for human rights and youth empowerment.

Youth empowerment examines six interdependent dimensions: psychological (Mental well-being and enhancing Consciousness), community (Leadership), organization (Networking), economic (Entrepreneurship), social (Connecting) and cultural (Ethics).

In the end, Youth Empowerment is empowering the nation and, as a responsible citizen, we all should promote positive youth development programs and help the underprivileged to get an equal opportunity in society. If you want to change the world, start with yourself. Each one of us can make a difference, but together we make a change. Let us make India a better place to live in.

"The youth of today is the leader of tomorrow" - Nelson Mandela.

Akhilesh Mohod  
(B. Tech Mechanical)

# Technical Secretaries' Address



Our experience as Technical Secretaries has been exceptional.

We realized the Technical Fest is the face of an engineering college, and it should be as grand as possible. So, to make SPECTRA 2021 a grand success, even with the ongoing pandemic situation, we commenced our journey of uniting students from different colleges and branches to participate in our national level competitions. The tagline for SPECTRA was "EXPANDING HORIZON". SPECTRA was conducted on February 27th and 28th, 2021. We are glad we could make it happen even during the pandemic by organizing events & competitions virtually.

It is said, "TEAMWORK IS THE ABILITY TO WORK TOGETHER TOWARDS A COMMON VISION."

Keeping in mind the heights we had to reach in a short period, we started working relentlessly. Every day, we used to have a meeting with our Core team so that we were updated with the ongoing tasks and this daily ritual really helped make SPECTRA successful. We also had some strategies planned, like - maintaining public relations with various colleges nationwide, where-in we communicated with the Campus Ambassadors of every college. Along with this, we also cracked some barter deals. In the initial days, we launched an event on our social media page: "SPECTRA BOLEGA", which excited our viewers and increased their enthusiasm for the fest.

There were a lot of obstacles on the road to success and, being the Technical Secretaries, it was our duty to overcome all those hurdles because we believe that overcoming hurdles in life is what makes you a strong individual. You boost your confidence that sharpens your thinking and problem-solving approach, thus, moulding you into an all-around person. The exposure you get, the skills you develop, the time management and, in the end, the fun elements is what makes the journey beautiful.

To close this address, we would like to acknowledge the utmost efforts taken by the Core Committee team and all the organizers without whom the fest would not have been possible. Also, we would like to thank Principal sir, Dr Shyamlee Solanki - Chairperson of the Student Welfare Committee and the other members of the Student Welfare Committee, the faculty and staff and the Student Council, 2020-2021.

- Gayatri Patil, Pranav Patil & Kalpesh Malpure

# SPCE ANNUAL DEBATE 2020



We believe, “For good ideas and true innovation, you need human interaction, conflict, argument, debate.” To celebrate this, Sardar Patel College of Engineering hosted its Annual Intercollegiate Debate on 31st October and 1st November 2020 via the online mode.

The theme for the debate was “Introspect. Contend. Compete.” We decided on this theme keeping in mind the unique situation that we all went through in 2020. It has been a year when most of our college activities had to be either postponed or cancelled. But even in these unprecedented times, we received encouraging participation from students all over the country. With an aim to provide a platform for young minds to nurture their debating talents, we invited the best debaters from all over India to put forth discussions, to refute, to explore, to question, to challenge the age-old ideologies, and change perceptions.



Day-one of the competition commenced with back-to-back debates of the participating teams. We had a great panel of experienced adjudicators who have been champions in the field of debate and have themselves won several national-level debating tournaments. The first day witnessed some great debates on many socially and economically relevant topics. The best eight teams qualified for the next round.

The near-impossible task of deciding the best team out of the qualified eight teams was carried out by our esteemed adjudicators (Mr. Kaisar Katchi and Mr. Harish Vashisth) on the second day. The theme was appreciated by all the adjudicators and their words really gave us a lot to think about. The teams fiercely battled their way debating on motions related to philosophy, democracy, politics, and justice among other such issues. The two best teams made their way to the finals, fighting with diligent enthusiasm. The event concluded with the online announcement of the winners via a virtual meet.

With a vision to embrace every challenge and the zest to tackle even the most unfavourable situation by contemplating innovative ideas, we move ahead. We pass on this torch to our next batch so that they can carry the legacy of the SPCE Annual Debate with a new zeal and more vigour.

# ALUMNI INTERVIEW

*with*

**VATSAL MUCHHALA**

B. Tech Electrical Engineering,  
2016 batch



*Vatsal has been a member of the Robotics club of SPCE during his time, and he is also the co-founder of TransRobota. He has also been the General Secretary of the EESA. He has done his Masters in Industrial Engineering from Lehigh University, and acted as the President of the India Club at Lehigh University. He is currently working at Norsk Hydro as a Supply Chain Scheduling Team Leader.*

**Q. Where are you currently located and what is your line of work?**

**A:** I am located in Pennsylvania, USA. I'm currently working as a Supply Chain Team Leader at a Manufacturing firm.

**Q. We know you were a part of the technical club at SPCE i.e., SPCE Robocon. So how did that help you enhance your experience, as well in your further career?**

**A:** SPCE Robocon helped me to experience the importance of 'TEAMWORK' which none of our curriculum teaches us. It taught me how to get through the toughest situation of life with the handful of resources you have by sticking together as a team. Also, it helped me develop my analytical

and logical approach to every problem in life. It also helped me to understand several technical concepts of our various subjects which built the base of my technical knowledge. The extra curriculum like Robocon or Council plays an important role in one's engineering life and I have always motivated people to be part of such activities because you will learn how to be practical in life.

**Q. Can you briefly tell us about your experience of pursuing Masters in another country? Like the experience with your peers, the experience of staying in a different country away from everyone, the curricular and co-curricular activities, etc.**

**A:** My experience has been great, academics have been totally different from what we studied. There is more practical exposure than theoretical. We also have many co-curricular activities which are a part of the curriculum. For example, we had a course to audit for learning golf, swimming etc. This helped us meet new people while studying and also get grades for playing.

**Q. What type of project activities apart from SPCE Robocon did you pursue at SPCE? What tips regarding the same would you like to give to the students?**

**A:** I was the GS of EESA 2015, also President for Techfest SPECTRA. Having such an opportunity to lead teams helped me develop managerial skills, and many other skills which we need to develop before entering the professional career and they are not taught in any books. I highly encourage everyone to be part of teams and try to lead a project or two not only within SPCE but also outside, take some company projects as fourth-year projects, TPO and other faculty have tie-ups with several other company professionals to help us get such projects.

**Q. Please share with us some fond memories from your student life in SPCE. How did these years shape you?**

**A:** Staying at college after 7 PM to work on projects with our friends, staying in college all night for fest preps and Robocon are few of the best memories I have and I still miss those times and my best team.

**Q. Being an Electrical Engineer, what piece of advice would you like to give to the budding Electrical engineers at SPCE?**

**A:** The only advice I have to give is, enjoy all the 4 years – not only in studying but by making new friends and being part of various activities. The way no one asks 12th standard grades in your undergrad, similarly no one is going to ask grades after you graduate, people will ask what apart from studies did you do during your education.



# Cultural Secretaries' Address

The term for the Student Council started on September 28th, 2020. I remember this because it was my birthday the following day, and every Council member had wished me. Nikunj and I started our journeys as Cultural Secretaries by planning a farewell for the previous Student Council. Although we could not conduct it on a grand scale, we had a video made for them, covering all their work and memories, fun games, and written personal thank you letters for each member. It was a cozy, warm and fun evening. The next event under our domain was the Navratri celebration. Unlike every year - where we have a traditional Garba night in the college quadrangle - this year, we had an online Garba competition for all the students of our college, judged by Ms. Priyanka Banarjee (actress and model). Two weeks later, we conducted an art competition on the occasion of Diwali. As December began, we started with the preparations for our Annual Cultural Festival - SPACE 2021. It was a bit sad at the start, as students were not participating in planning any events since they thought they would not enjoy the events online. But once we showed them how we would be conducting the events & including new events, we received a better response.

Every year, after the end sem exam of the odd semester, the students go on their Industrial Visits. However, this year, they did not get the opportunity to go on a visit. So, we organized a stand-up comedy show on Zoom by the very famous Pratyush Chaubey. The show went very well, and all the students laughed till their stomachs hurt. In February, with the admissions of the first-year students, we were now prepping to conduct the Fresher's Party for them.

When we asked the FY students for videos of their talent, we were amazed by their response, but unfortunately had to shortlist them to 6 contestants battling for the title of Mr. and Ms. Fresher 2021. Apart from the competition, there were games for all the other spectators. We live-streamed our event on YouTube. While all this was happening, we kept our social media accounts active for everyone to know that despite the pandemic, we are not stopping. We have been weekly conducting quizzes for the followers. Also, we had a series of talk shows with various well-known artists like Ankita Sood, Sunita Rajwar, Aapka Jags. Finally came the much-awaited days of our Student Council journey - March 6th and 7th, 2021. We were excited, happy, a bit nervous, but enthusiastic. Although the fest was being conducted online for the first time, we received over 300 participants from Mumbai, Delhi, Bangalore, Kanpur, Guwahati, and many more cities through the pandemic set us apart physically, it did bring us more closely to a National Level. The two days were full of energy and fun-filled events. All the hard work which the Heads and organizers had put in finally paid off. After the fest, we organized another stand-up show by Madhav Mehandru for the first-year students since they missed the first one. This journey has been an insane yet exciting one. Both of us complimented each other and took over the work whenever either of us had an emergency. Cheers to us!! Cheers to the Student Council 2020!!



- Piyush Waman & Nikunj Dholay

# ज़िंदगी

ज़िंदगी भी क्या खूब नज़ारा दिखाती है,  
जिसे चाहा हमने,  
वह किसी और के नज़र आती है !!

तुमने साथ छोड़ा,  
मेरे दोस्तों ने थाम लिया !  
फिर भी हर कहानी में मैंने,  
सिर्फ तेरा नाम लिया !!

भुलाया ना जा सके,  
वो हिस्सा हो तुम ज़िंदगी का !  
ज़िंदगी में तुम मिले तो ठीक,  
नहीं तो यादगार किस्सा हो तुम ज़िंदगी का !!

जो चाह कर भी पुरा ना हो सके,  
उन ख्वाबों में एक ख्वाब तेरा भी है !!

कितनी अजीब है यह मेरी सोच,  
अपने हज़रों हैं,  
पर याद सिर्फ तुम आते हो !!

कई साल गुज़र गए,  
आंखों से तस्वीर उनकी जाति नहीं !  
सिर्फ हमारा हाल ऐसा है,  
या आंखों को नहीं उन्हें भी आती नहीं !!

बचपन से ख्वाहिश थी,  
कोई मेरा सिर्फ मेरा मुझे मनाएं !  
अब हम नहीं चाहते की,  
हमें कोई चाहे !!

ज़िंदगानीने ना ज़्यादा खुशी दी,  
ना ज़्यादा गम,  
बस बीच का बंदर बनकर रह गए हैं हम !!

प्यार तू खुद से जता,  
दुसरे का टिकता नहीं !  
दुसरे छोड़ भी गए अगर,  
अपना कभी बिकता नहीं !!

-सुधीर देवरे



# ANNUAL REPORT

**Our objective:** EESA works for the Electrical dept. of Sardar Patel College of Engineering. It conducts various events for students of the Electrical dept. including technical events, sports events, adventure, fun events, etc. The motive of EESA is the betterment and welfare of Electrical students. The committee has worked and been guided under Dr. Anupa Sabnis (Head of Department, Electrical) and Prof. Vishal Dake (Faculty Coordinator, EESA).

**General Secretary:** Rohit Patil

**Finance Secretary:** Aaryan Pantawane and Aanand Khurd

**Technical Secretary:** Ritik Chaware, Gayatri Devraj and Aniket Rane

**Non-technical Secretary:** Rakshit Kahandal and Pallavi Jadhav

**Sports Secretary:** Chintan Patel, Kedar Kharavatekar and Niyati Girkar

**Magazine Secretary:** Pratham Duragkar and Saloni Kamble

**Events conducted:** 1. EESA 2019-20 Farewell 2. Calculator Workshop 3. Treasure Hunt (online) 4. Auction Event 5. COVID-19 Tracker App Workshop.

## Farewell to EESA Committee:

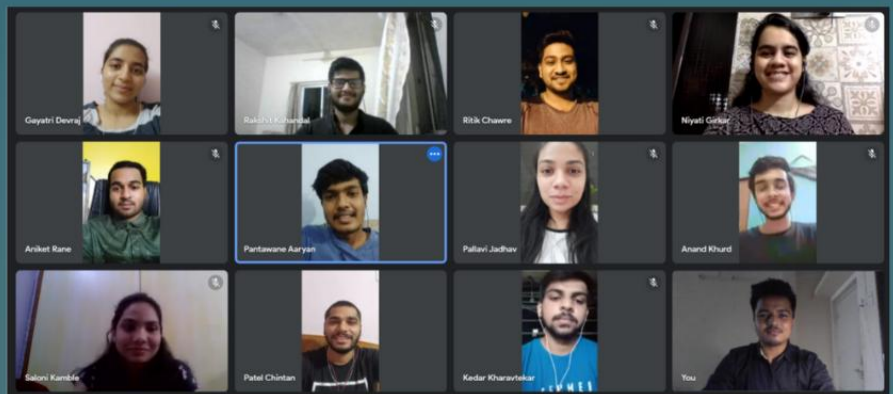
On January 23rd 2021, EESA Committee conducted a farewell for B. Tech Electrical students through a video conference due COVID-19. We used Google Meet as the platform for the conference. The session was quite interactive and enjoyable. We played some games, had Q&A sessions and a flashback moment for all the B. Tech. students as they recalled their journey of 4 years in the college. The conference ended with everyone being emotional and T. Y. students gifted something special to all the B. Tech students by sharing an emotional video on the 4 years of college life of B. Tech 2021 students.

## Scientific Calculator Workshop:

The purpose of this activity was to help the first-year students to get acquainted with different functions and operations present in the scientific calculator – CASIO fx-991ES Plus & fx-991EX models. We covered topics like basic operations, equations and functions, complex operations and matrix operations.

**Treasure Hunt:** Mumbai Darshan on March 21st, 2021. No. of attendees – 108.

Purpose of activity: To build good interaction between first-year students and other college students, and to introduce students who are new to Mumbai with well-known places of Mumbai along with some interesting facts.



**COVID-19 Tracker App Workshop:** We organized this workshop on April 11th, 2021 to introduce the students to the world of data science, and to help them explore the vast field of data extraction, interpretation and integration with an app. Also, to introduce them to platforms and tools like Google Colab, Heroku and Streamlit. The following topics were covered: introduction, front end development, data extraction and deployment. The workshop was conducted on the Bluejeans platform, and saw participation from over 80 students from Electrical and Mechanical branches.

# Sport Secretaries' Address



Hello Speedies!!

As far as we can remember, throughout the last year, 'Sports in the wake of COVID-19' was the only idea available to us. We still had hope about the changing of the scenario which was unfolding, and then around the same time, the three of us were elected as Sports Secretaries.

We hoped to be able to arrange SPIRIT 2021 on the ground. But alas, the situation went downhill and as a result, we had to shift our activities to online mode. We started with planning an online Chess competition for the students of our college. We knew things would seem different in the year ahead and would be inevitable, yet we were ready for this new challenge.

So, we decided to keep putting our best foot forward to engage the students in physical activities and, thus, try to give them the ground experience to the best of our capabilities. We started 'Let's Run Together' and 'Saturday Spirit' to group up students to build their strength. We weren't sure, but surprisingly we got excellent responses.

We buckled ourselves up as our Annual Sports fest - SPIRIT 2021 came around the corner. After a lot of brainstorming, we came up with some exciting games like Pacer Run, Freestyle Football, Chess, Free-Fire, IPL Auction and Sports Quiz which provided a platform for a huge crowd to witness their "SPIRIT" in true sense. This journey started with tentative steps. But with hard work, ambition and faith we completed it successfully. We would sincerely like to thank each and everyone - teachers, former Council members, Council members and our group of organisers who supported us and were always there to help us whenever we were stuck. On this parting note, along with these wonderful memories, we have something to share with our readers, that "As you face challenges, you will meet your potential to tackle them and make your life a remarkable occasion!!" Thank you!

- Dakshata Patil, Karan Pandita & Mayank Nagrale

# SPECTRA 2021

## THE FEST

**SPECTRA The Fest** is one of the largest technical fests in Maharashtra. Over the past years, it has gained a massive reputation for its excellent performance, and participation from students all over the state. With more than 20+ mega-events organized online, over two days, wherein hundreds of students participated and enjoyed, SPECTRA 2020-21 was a great success for the college!

In the wake of the pandemic, SPCE managed to conduct the fest completely online wherein new events were introduced and also some of the events were modified according to the mode of event conduction.

Along with the tagline: Make it Happen, the theme for this year's fest was: Expanding Horizons. All the details of SPECTRA 20-21 have been included on its official website, [www.spectrathefest.com](http://www.spectrathefest.com). This year, SPECTRA had a variety of sub-events like daily technical quiz, SPECTRA Bolega (A talk show), etc. which left a long-lasting impression on the participants and the audience alike. Pre-SPECTRA was a successful technical event, which included a brief demonstration of robotics and humanoid robotics for school and college-going students.

**Events from the Electrical department included:** Hackathon, Arm-a-Bot, Roborace, Machine Learning, Code Debug, Magic by Logic, Circuit Design, Trical Riddle and Quiz competition on Electrical Engineering topics.

**Events from the Mechanical Department included:** Cad Master, AutoCAD, Lathe War, Project Presentation, Contraption and Mech Quiz.

**Events from the Civil Department included:** Town Planning, Plan it, Tech and Ladder and Tech quiz.

Technical Paper Presentation, the common event for all branches, was a platform for all the technocrats to present their research work in one of the highly competitive competitions of SPECTRA. We also conducted MAKPCO (Mathematical Application of Knowledge Project competition). It is a competition which helps in team building and enhancing knowledge about Mathematics.

Last but not least, the success of SPECTRA 20-21 would not have been possible without the support of the sponsors who helped in social media marketing and provided monetary funds.



# ALUMNI INTERVIEW

*with*

**AMAN CHHEDA**

B. Tech Mechanical Engineering,  
2017 batch

*Aman has been a part of SPCE Racing during his time at SPCE, and participated in numerous national-level competitions. He acted as the Team Captain at SPCE Racing for the year 2015-16. He then went on to study Masters in Industrial Engineering at Texas A&M University, and is now working as a Quality Engineer at Tesla. Aman has also volunteered as a mentor for economically backward students, providing guidance on educational and life goals.*

**Q. Where are you currently located and what is your line of work?**

**A:** I am currently situated in Bay Area, California. I am working for Tesla as a Quality Engineer. Currently working for supporting Model 3S and X. I have been with Tesla full-time since the last 2 years, having previously worked as an intern.

**Q. What was your main aim after the 4 years of Bachelors in Mechanical Engg at SPCE & what inspired you to pursue it?**

**A:** My aim from the beginning was to get into Tesla from the under-graduate level itself as I was a car enthusiast. Tesla was an upcoming company at the time of my under-graduate study and even now it is an upcoming as well as a

green-energy company. So, my aim was to get into Industrial Engineering.

**Q. We have known that you were a part of the technical club at SPCE i.e., SPCE Racing. So how did that help you in enhancing your experience, as well in your further career?**

**A:** Yes, I was the Captain of the 2016 season at SPCE Racing. It really enhanced my abilities to a great extent. Of course, the curriculum knowledge was important. It helped me in enhancing my collaboration skills, which I think a lot of companies ask for. SPCE Racing acted as a forum for me to apply my Mechanical skills. I was also leading the Vehicle Dynamics Department.

**Q. Can you briefly tell us about your experience of pursuing Masters in another country? Like the experience with your peers, the experience of staying in a different country away from everyone, the curricular and co-curricular activities etc.**

**A:** It was a great experience. Masters in the US is not just about curriculum. You are completely rounded and you are also on your own. You are in a different country, surrounded by different people. You get to learn a lot of skills. You should try a Masters in another county, probably if not in another country, then go for another state with different people around. It helps you to get out of your comfort zone and learn from others.

**Q. What type of internships/project activities apart from SPCE Racing did you pursue at SPCE? What tips regarding the same would you like to give to the students?**

**A:** Sure. So, actually, I didn't do any internships during my Bachelors. I felt that the amount of work that we did at SPCE Racing was sufficient, we used to get a lot of practical knowledge and I could drive my own car, which was the main agenda at SPCE Racing. We could work on the car, test it too and had complete ownership of the project. In the USA, I did a few internships at Panasonic and Tesla as it was needed.

**Q. Please share with us some fond memories from your student life in SPCE. How did these years shape you?**

**A:** Well, there are a lot of fond moments. What we did as friends was celebrating the Cultural Days, took part in SPACE by taking part in many events and we even organised some of them. Also, SPCE Racing was always there. We would be in the workshop for the entire day, probably 10-12 hours. So, we created a lot of memories there too.

**Q. Being a Mechanical Engineer, what piece of advice would you like to give to the budding Mechanical engineers at SPCE?**

**A:** I would say that Mechanical Engg space is still exciting. There are a lot of roles which you can pursue as a Mechanical Engineer. It is a challenging field. You can do a lot of things being a Mechanical Engineer. Problem solving skills in a Mechanical Engineer are very good and that is what I think larger companies look for in an engineer. I believe that the course of Mechanical Engg is very intense and if you make it through that, then you can make it through with a lot of things in life.

*Q. Anything else you would say:*

**A:** Yes, I would like to say to the folks at SPCE that I would like you to pursue a few extra-curricular activities, and not just academics. The reason being that on your resumes the CGPA is just a line. It is necessary to fill it up with some other things you did, like projects or internships or you can work at SPCE Racing or WAVE or Robocon. I would highly recommend doing stuff which is out of the syllabus. Because that is what will define you in every field.



# dream

*Dream your goals to complete it,  
Take efforts to achieve it.*

*Love yourself the way you are,  
And let the world know who truly  
you are.*

*Embrace the hurdles that come  
your way,  
Those will teach you to jump in a  
cheerful way.*

*Remember those who pulled you  
up,  
And have faith so that you don't  
give up.*

*Anything can be changed but by  
only you,  
Dream when fulfilled will brighten  
you.*

*~ Saloni Raut  
F. Y. Mechanical*

# SPACE 2021

## THE FEST

**Sardar Patel's Annual Cultural Extravaganza**, popularly known as **SPACE 2021**, was held on March 6th and 7th, 2021. The two-day annual cultural festival was conducted on various online platforms due to the pandemic.

We needed to scrap a few of the events since we could not conduct them online. They were replaced by their online versions, along with new events added to the list. A total of 14 events were conducted, some of them being - Swaranjali, VOGUE, Step Up, English Debate, Bollywood Quiz, etc.

We used Google Meet to conduct English, Marathi debate and Rhyme & Reason. Instagram - which is a very popular social media platform was used to conduct events like Meme-o-mania, Alfaaz, Step Up, Swaranjali, and many more. This helped us to smoothly conduct the events and also helped the participants to reach a greater audience and showcase their talents while being home.

The various performing arts & literary arts events were open to all. SPACE 2021 was very unique. We witnessed the participation of students from various colleges across the nation from cities like Delhi, Bangalore, Kanpur, etc. A well-known panel of judges was called upon to select the winners and guide them for future endeavours.

The festival began with a Pre-SPACE stand-up comedy event by the very popular Pratyush Chaubey and ended with an After-SPACE stand-up by the upcoming star Madhav Mehandru. Students from all four years and three branches had a blast in both the shows. Another Pre-SPACE event, named BAATEIN, was conducted on Instagram Live, where famous artists joined us and shared their stories of success, their journeys and motivated the budding artists of the next generation. The artists who joined us were - Ankita Sood, Sunita Rajwar, Aapka Jags and more.

It would be fair enough to say that the fest made us come together and celebrate while staying at our homes.



# ANNUAL REPORT

**Our objective:** Mechanical Engineering Students Association or MESA is a committee of Mechanical Engineering Students which aims to play a role in overall development of students in technical aspects. We work for sharpening the skills of the students, improving their abilities as well as their technical knowledge by arranging different events, seminars and workshops and also to improve non-technical abilities.

**General Secretary:** Aditya Nisal

**Co General Secretary:** Somnath Salunkhe

**Treasurer:** Rohan Ghuge & Soniya Patil

**Head of Events:** Aditya Thokal

**Co-Head of Events:** Rudresh Patel

**Sports Secretary:** Vedant Punse & Rutuja Wani

**Magazine secretary:** Samyak Waghmare & Abhishek Daberao

## Events conducted:

1. Freshers party 2021
2. Webinar on 'Importance of GATE in higher education'.
3. Webinar on 'Create your Future through Impactful Projects'.
4. Antakshari
5. Farewell video

**Virtual Freshers' party:** We conducted an online freshers' party for FY. B. Tech Mechanical students on April 14th 2021, through video conference due to Covid-19, to make the freshers' feel welcomed as a part of the SPCE family. All the FEs introduced themselves and it was a very interactive session. We played games like 'Truth or Dare' and everyone actively participated and enjoyed it a lot.



**Webinar on 'Create your Future through Impactful Projects'** was conducted on April 29th 2021 to guide the students on identifying appropriate and meaningful projects in their final year and to make them 'industry ready'. The expert speaker for this webinar was Mr. Hemant Gadgil, Executive Director, of Dassault Systemes Foundation, India. Topics related to upcoming trends in specific industries and few problem statements and project ideas were covered in the session.

**Webinar on 'Importance of GATE in higher education'**, organized on March 27th 2021 by Prof. Megha Janbandhu, Dept. of Mechanical Engg, for second- and third-year students. The speaker for the webinar was Mr. Abhinav who is an NIT alumnus and is working in govt. research. He has 11 years of teaching experience. The students got an idea about the benefits of the GATE exam for higher studies and job opportunities, along with preparation strategies and approaches for getting a good score.

**Antakshari** was organized by the MESA committee for the first-, second- and third-year students. We formed a Whatsapp group for the same, and students actively participated and sung the songs from the given words. It was a new experience to play a game of this kind in the online mode and everyone enjoyed it a lot.

# *The Unrest*

There are things that you think you understand,  
There are people that you do yet you don't,  
There are always those terrains that are unexplored,  
And still, everyone thinks that they know.

To think that human brain can solve any complex equation,  
And yet fail to understand the simplest of all,  
The ones that don't even need to be thought upon.  
These are the times when it hits me the most:  
"Common sense is a very uncommon resource"

The more we progress it seems the deeper we go into the  
labyrinth of unrest,  
The technology creates the very barriers that they were meant  
to address.

Oh, don't see this in the wrong sense,  
The fault here is not of the technology to be honest.  
It's the humans who don't even know how to handle themselves,  
And yet get the access to them.

But now anyway the problem is too late to be addressed,  
So let us just wait and see,  
Do we find that uncommon common sense?  
At the end of the labyrinth of unrest.

*-MANAV MEPANI  
T.Y. Mechanical*

## 22 THINGS THE PANDEMIC MADE ME THINK.

1. We have brought the world inside our four walls and I keep wondering how much of good and bad this one thing holds.
2. Love, care and friendships are still somehow so grandly underrated. So is human touch, talks and presence.
3. At times, crowds were safe heaven somehow in its own unique way.
4. Storms come and go.
5. You are lucky to have just enough.
6. There are people and nations struggling and we cannot do anything but stay where we are and pray. Hard truth!
7. Entertainment is sanity!
8. Approaching people and making friends is somehow a tiny bit easier from behind the screen.
9. Time flies. Still, we got to give time, to relations and ourselves and to time itself!
10. Bad days are still just days, they pass.
11. Thoughts will keep bringing internal storms.
12. Music soothes and sometimes, still not!
13. Things break and mend! It's all a time game.
14. Faith is eternal saviour. So, keep a bit of it.
15. Spiritual connect is another underrated thing. I reckon, it's a necessity now!
16. A nice cup of coffee or tea or a warm bath or a write up in the diary, friends, stand ups, movie or music nights on Discord or GMeets, playing games online, a walk with your pet, and so much more, all of this works as healthy therapy for our consciousness, it keeps us going.
17. Did I mention sleep? Nothing is as pacifying as a nice sleep! Because we can sleep through all the worldly problems.
18. You have caught on to new habits. Some nice and some not!
19. We should be eternally thankful to technology and media for being catalysts in keeping us sane.
20. Love the people you have around you, a little more. Your parents, grandparents! We have people we grew up around, but what about our old people? They don't have the people they grew up with. At least most of them. So maybe please love them a little more. Times are tough!
21. Somehow it will get better and we will go on.
22. Hope.

ARUNDHATI JOSHI  
F. Y. MECHANICAL

# SPIRIT

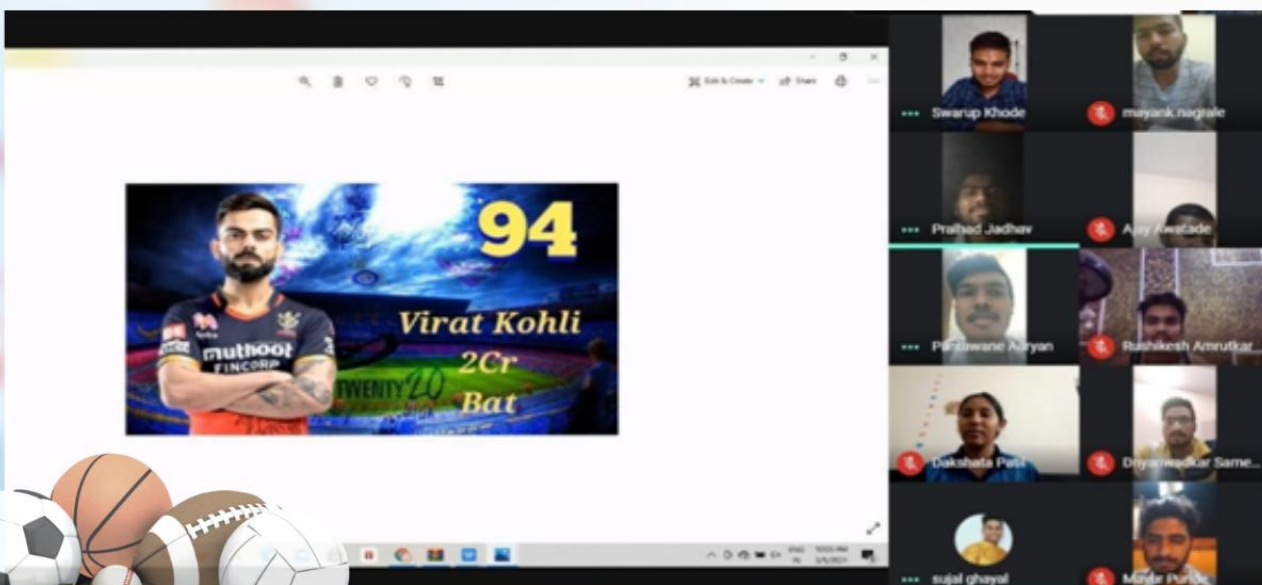
The Annual Sports Fest of Sardar Patel College of Engineering, SPIRIT 2021, was successfully conducted online during the academic year.

We were glad to have the most excited and enthusiastic crowd - from the organizers to the coordinators and, of course, the unbeatable and thrilling participants - we want to extend a heartfelt thank you to each and every one who helped in making SPIRIT 2021 a huge success. Over 100 participants from different colleges from all over Maharashtra took part in 6 events.

The fest began on March 1st 2021, with active and thrilling participation from the contenders and successfully reached its finale on March 5th 2021, having worthy and deserving winners from six sporting events. IPL Auction, Freestyle Football, Pacer Run, Free Fire, Sports Quiz and Chess events were held under SPIRIT 2021. All the events saw worthy and thrilling participation from all the participants.

“The greatest glory in living lies not in never falling, but in rising every time we fall.”

Sports, thus, embraces this glory and pride of our lives. Marking the end of SPIRIT 2021, we are overwhelmed by the support of each and everyone associated with this and, we are glad to be a part of this memorable journey. We hope to see many more such events in sports in the future in this esteemed institute of ours.



# SPCE RACING

## Driving For Change

The official formula student team of Sardar Patel College of Engineering, **SPCE RACING** is one of the three prestigious technical clubs of SPCE Mumbai.

The team researches, designs, manufactures and tests life-size Formula style race cars, all by college students across all four years and our faculty advisor. This club was initiated by a group of motorsports enthusiasts in 2010, united by a common passion and steered ahead with one goal - to make a name for the team and start a legacy, revered to date. The team participated in BAJA - the dune buggy competition, and have been going from strength to strength since then by winning laurels in BAJA, SUPRA and the most recent being Formula Bharat.



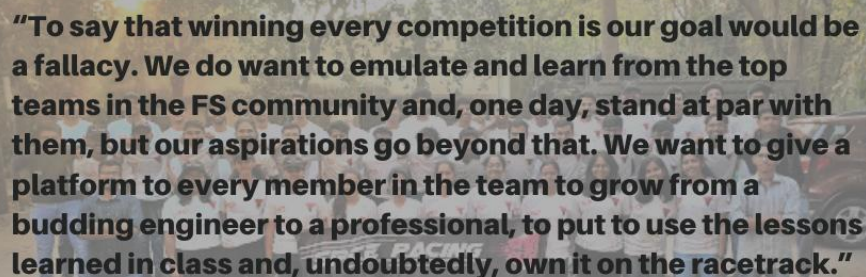
**#SHIFTDON'TSETTLE**



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 over 5 days.

Since their advent, the team has had numerous successes in the competitions they have participated in and yet, irrefutably, are hungry for more. A few notable mentions are: winning the **3rd overall award at SUPRA 2011, 2nd overall at BAJA 2012, Fuel Economy Award at SUPRA 2016, 2nd in Procurement and 3rd in Management at FSEV 2021 and Runner-ups in Business Plan at FB 2021.**

Having made their mark in the combustion sector, the team has its goal to conquer the Electric Vehicle category in its sights now. "Our vision has always been to look down the road, and we are very keen to do our part in the worldwide switch to Green Mobility for combating global warming", says Pushkar Raut, the team captain. Adding to this, he also says, "Being the debutants in the EV category for the 20-21 season, it was indeed an uphill task for the team to make it big at the Formula Bharat EV. The COVID-19 pandemic did not make things any better with the complete shutdown of our workshop and our members being stuck in their hometowns away from college. Despite the limbo, the team has done commendable work virtually and managed to bag some notable awards and mentions at FB 2021, where-in, our business plan team brought the cup home."



**"To say that winning every competition is our goal would be a fallacy. We do want to emulate and learn from the top teams in the FS community and, one day, stand at par with them, but our aspirations go beyond that. We want to give a platform to every member in the team to grow from a budding engineer to a professional, to put to use the lessons learned in class and, undoubtedly, own it on the racetrack."**

# The Fruit

*Not the fruit that you find on trees,  
But one that you have to earn,  
By driving in the direction opposite to the breeze,  
Or finding a flower on a fern.*

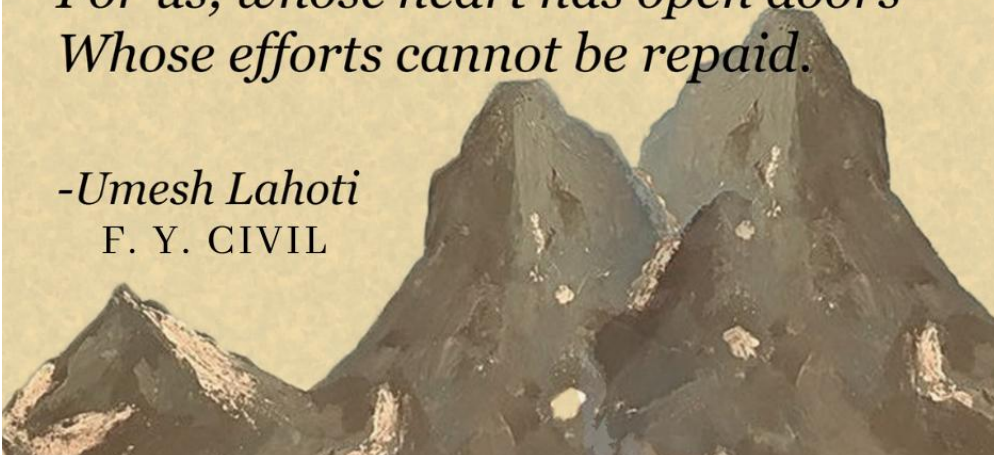
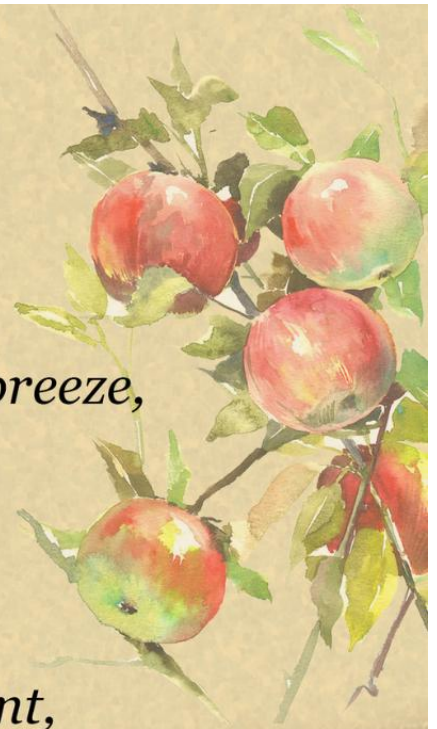
*Fruit on trees provides you nourishment.  
But this does something else;  
It provides you strength and encouragement,  
To do what your heart tells.*

*Taste of a fruit is what a tongue can know  
And not one's body whole,  
But the taste of this fruit is that, which can go,  
To even one's heart and soul.*

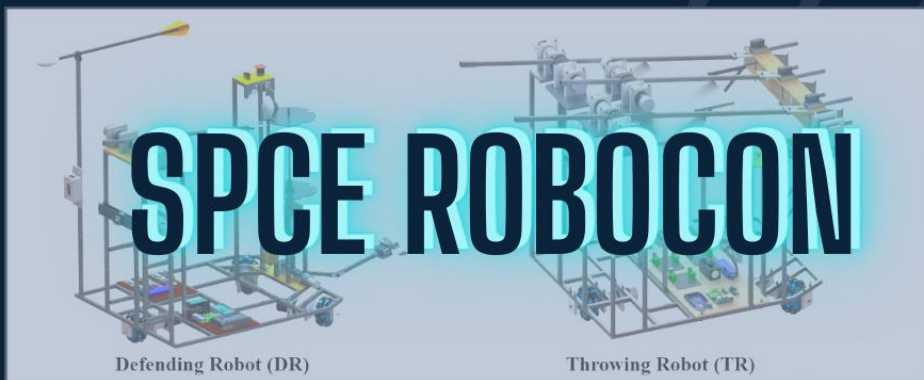
*The fruit on trees will wilt and fall.  
But this one never will;  
It inscribes one's name on the hearts,  
Even though one may become still.*

*This fruit should be given to those  
Who accompanied us in every shade,  
For us, whose heart has open doors  
Whose efforts cannot be repaid.*

*-Umesh Lahoti  
F. Y. CIVIL*







Sardar Patel Automation and Robotics K'lub is a team of enthusiastic and motivated students passionate about learning and working in the Robotics field. The club participates and represents the college in various national-level competitions like DD Robocon India, IIT Bombay Techfest, VJTI Technovanza, SPCE's technical fest (SPECTRA) etc. This year, the club's work resumed in October 2020 after a 6-month hiatus, with necessary permission from the college, along with utmost vigilance to follow the COVID-19 safety protocols. The club, even during the pandemic, has achieved remarkable accomplishments -

- AIR 9 in DD Robocon 2020, held online this year.

The theme consisted of two semi-automatic robots simulating the game rugby and completing the given task in the minimum possible time.

- Winner of VJTI robotics challenge VRC 8.0 in virtual mode, continuing its winning streak since 2014.
- 2nd rank for Ultimate Coder competition at the VJTI Technovanza 2020.
- 1st and 3rd prize winners in Magic by Logic under SPECTRA 2021 in which a problem statement was given and students had to design a solution circuit using the knowledge of logic gates.
- 1st prize in SPECTRA competition Lathe wars.



Currently, the club is working on the DD Robocon 2021 competition and will continue to provide an environment conducive for students to pursue their interest in mechanical, electrical, and programming domains by working on robotics projects.





# SPCE W.A.V.E

While the academic year seemed to have a rough start due to the COVID-19 pandemic, SPCE W.A.V.E. (Wing of Aerial Vehicle Engineers) also had to face a setback. Our plans for the upcoming year were derailed due to successive lockdowns but, nevertheless, the club jumped and regained its momentum with new ideas and even greater enthusiasm.

SPCE W.A.V.E. participated in the AeroVaccine Competition held at IIT-Bombay's Techfest 2020 on the 19th - 20th December 2020. A total of 5 teams participated from the club, consisting of 2nd and 3rd-year students. The aim of the competition was to design a conceptual Vertical Takeoff and Landing (VTOL) aircraft to carry and distribute vaccines to remote areas. The competition was held in 2 stages. The 1st stage consisted of the design report submission, in which teams from all over India had to submit their design report which elaborated on their detailed designs (aerodynamic, structural and logistic) and innovative ideas based on the feasibility, innovation, cost-effectiveness and designing capabilities. After submitting the design reports for the 1st round, 2 teams were eliminated and the other 3 teams qualified for the second round.

For round 2, the teams had to submit detailed design ideas along with simulation videos and were asked to prepare a brief presentation for the same. This round took place on 19th and 20th December 2020 and was presided over by a judge. The results were declared on 27th December 2020 and we're proud to announce that one of our teams secured 2nd Overall Rank out of 24 teams.

Our future endeavours aim at accomplishing even greater feats and bringing laurels to the club as well as our college. The club is thankful to our faculty advisor, Dr. R. S. Maurya, who has been instrumental in our success, by providing us technical as well as moral support throughout our journey and has motivated and guided us through the tough times.

We would also like to offer thanks to Dr N. R. Raykar for his continuous, unending support and guidance, without whom it was not possible to reach this far and also Dr Sudhakar Umale for always supporting the team during tough times.

## काहीतरी खुपतय डोळ्यात

किती दिवसांपासून कितीतरी  
वाढळ मनात साचलय,  
अस वाटतय कुणीतरी खुप माजलय,  
तो माज आता घालायचाय त्याच्याच गळ्यात,  
आता मात्र काहीतरी खुपतय डोळ्यात.

किती जण पाहिले, किती जण राहिले,  
लढता लढता माझे इतके सैनिक का शहीद जाहले,  
आपण मजा मारतोय मळ्यात,  
काहीतरी खुपतय डोळ्यात.

शेतकऱ्याला त्याचा मान नाही मिळाला,  
पेट्रोल च्या भावावरून मोर्चा निघाला  
अधिकारी सायकल चालवून निषेध करतात,  
मग त्यांच्या मागून गाड्या काय पाण्याने चालतात  
आपण कुणाकडून, बस अडकलोय याच कोड्यात,  
काहीतरी खुपतय डोळ्यात

कोरोना वरून लस निघाली,  
5G च्या टेस्टिंग साठी बस निघाली.  
"5G मुळे माणूस मरतोय", हे ऐकून  
कोरोना सोडून 5G कडे वाट निघाली,  
कधी कधी प्रश्न पडतो बुद्धी आहे का यांच्या डोळ्यात,  
काहीतरी खुपतय डोळ्यात.

शिक्षणाचं माहेरघर असणारी भारतभूमी आज कुठे चालली,  
नेत्यांनी तर लाज पूर्ण विकून खालली.  
चूक पण आमचीच कारण आम्हीच पैसे घेऊन सरकार आणलय,  
लोकशाहीला आम्ही राजेशाही पद्धत मानलय.  
देशाची हालत होतीय तळ्यात मळ्यात,  
काहीतरी खुपतय डोळ्यात.

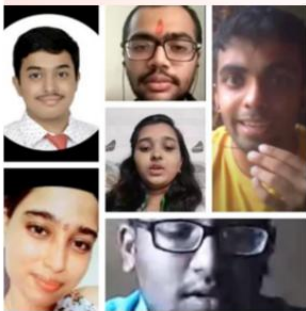
"शिक्षणाशिवाय पर्याय नाही" या मतावर मी ठाम आहे,  
पुस्तके वाचून ज्ञान वाढविणे हे सुद्धा एक काम आहे.  
एकदा नालंदा पुन्हा उभी राहिल,  
त्याच्या ज्ञान गंगेतून पाण्याचा एक थेंब डोळ्यात जाईल,  
तेव्हा कुठेतरी खुपण कमी होईल.

-सुधीर देवरे

# TESA SPCE

**Yog Satra:** TESA-SPCE coordinated with Vivekananda Kendra, Mumbai for a free-of-cost online program 'Yog Satra' from 1st to 21st June 2020 by Vivekananda Kendra, Kanyakumari. This three-week program at the user's pace provided the detailed training of yoga, an ancient Indian Healthcare Practice, to participating students and faculty of SPCE. It was well responded to by 50 participants from SPCE. 07 Faculty Members, 02

Staff Members, and 41 students of all branches of SPCE participated to avail the benefit of this program as the need of the hour during the outbreak of epidemic of COVID-19. The program was concluded on June 21st 2020, the International Day for Yoga, with address by Padmashree Dr. Nivedita Bhide, All India Vice-President, Vivekananda Kendra, Kanyakumari on Yoga: A way of life.



**Teachers' Day 2020:** TESA-SPCE organized an online program to celebrate 'Teachers' Day-2020' on Saturday, 05 September 2020. TESA-SPCE Student Members and S.Y. Mech. students took the initiative and actively participated in this program attended by 80 students and 06 Faculty of Mechanical Engineering Department, SPCE. Dr. S.S. Umale, Head of Dept. (Mech.), and Dr. S.B. Rane, Dean- Academics, SPCE addressed the role of Teachers in shaping up the academic and professional career of students.

Professor Parag K. Muley, Faculty Advisor, TESA-SPCE emphasized the importance of moral and ethical values in education and its inculcation in the young minds of students for building a strong nation. SPCE Alumni also take part in this online program and shared the influence and contribution of their teachers in their life and career academic career.

**IITBombayX MOOCs:** e-outreach IIT Bombay initiated a nationwide program of various Massive Open Online Courses (MOOCs) in the domain of Soft skills, Software, and Engineering at learner's self-pace since June-2020. TESA-SPCE is associated with IITBombayX for the academic benefit of SPCE students under the coordination of Prof. Parag K. Muley, Faculty Advisor, TESA-SPCE, nominated officially as Institute Coordinator of SPCE with IIT BombayX. The program offered a total of 13 courses instructed exclusively by the IIT Bombay Faculty. For July-December 2020 semester, a total of 146 students of S.Y, T.Y., and B.Tech. form Civil, Electrical, and Mechanical Department, SPCE enrolled for various courses by IITBombayX with a total course count of 223. Our students were awarded Honor Code Certificate by IITBombayX for 92-course counts on successful completion of their enrolled courses as per evaluation criterion by IIT Bombay Faculty conducting the respective course. Out of this, certificates for 49-course counts were awarded to SPCE Electrical students, 37 to SPCE Mechanical students, and 06 to SPCE Civil students.

# ART GALLERY

Vaibhavi Kuche



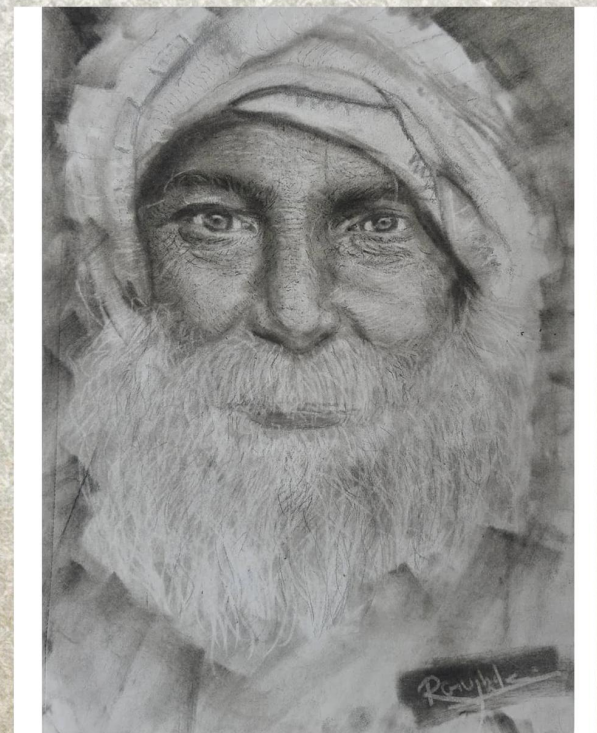
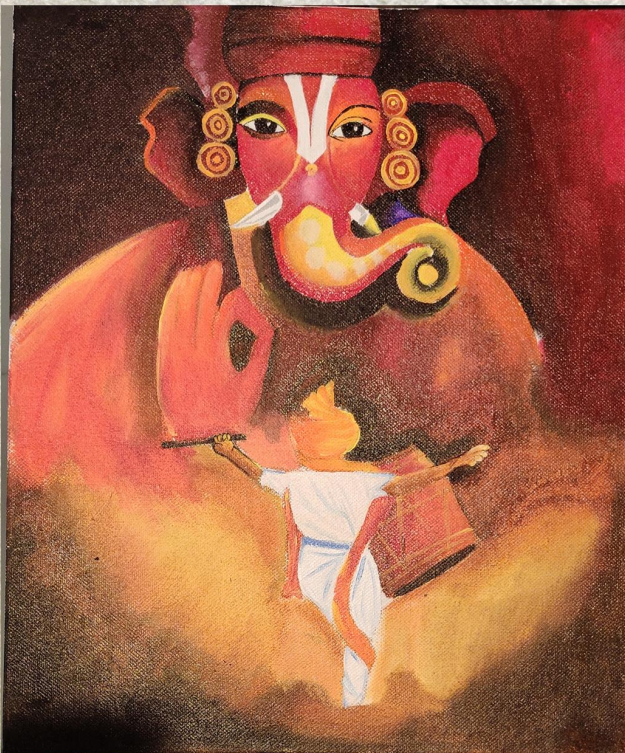
Eesh Dehadrai



Piyush Waman



Aditi Patil

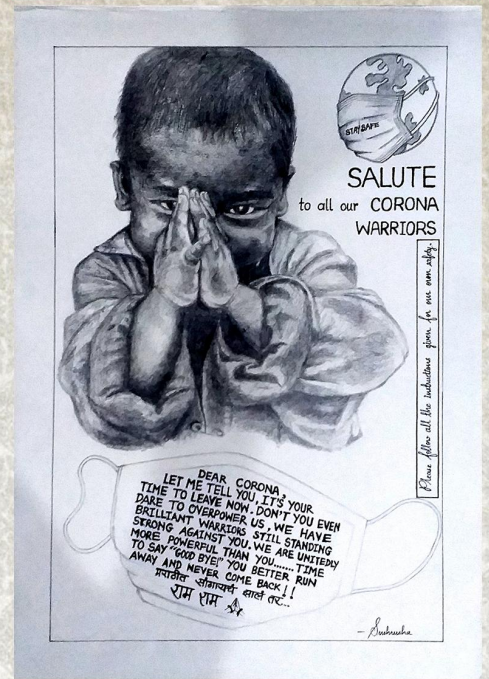


Rushikesh Ughade

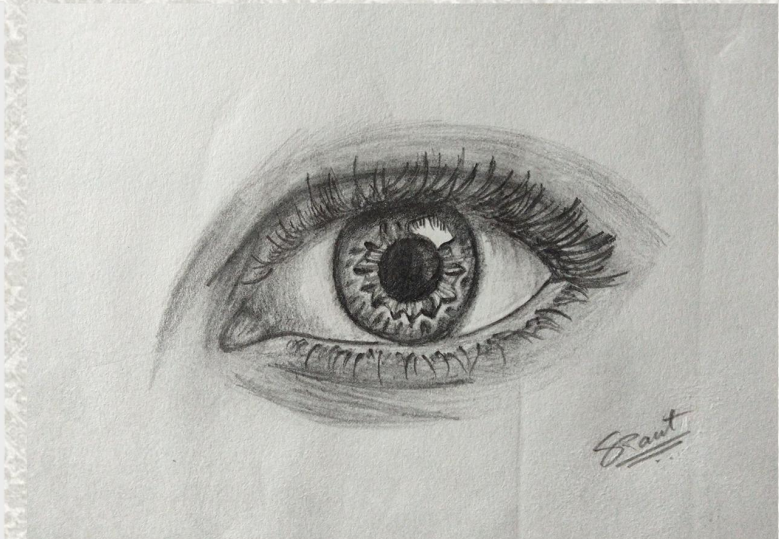
Arundhati Joshi



Sushrusha Takone



Abhijeet Shinde



Saloni Raut

Vaibhavi Kuche



Saurabh Dahibhate



Mrunmayee Valunj

# MAGAZINE TEAM 2020-21

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Anesh Raina



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