ACADEMIC BULLETIN

Academic Year

2019-2020

Department of Electronics & Telecommunication Engineering

ACADEMIC BULLETIN

July 2019- December 2019

Department of Electronics & Telecommunication Engineering

Prepared By:

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(Assistant Professor, EXTC, DJSCE)   **(Professor & Head EXTC, DJSCE)**

ACADEMIC BULLETIN

Period: 1st July 2019 – 31st December 2019

1. ABOUT DEPARTMENT

1.1 Vision

To be a world class Institution for education, training and research in engineering, inculcating values and skills for sustainable development of the society.

1.2 Mission

- To provide competent faculty and an interactive learning environment along with world class infrastructure for nurturing professionalism & entrepreneurship in Engineers.
- To foster technical competence, research aptitude and environmental awareness amongst aspiring technocrats to develop sustainable engineering solutions.
- To provide a forum for active interaction between academia & industry, leading to continuous improvement in engineering education.

1.3 Vision of the Department

To develop technically competent and socially responsible Electronics and Telecommunication engineers capable of fulfilling expectations at indigenous and global levels.

1.4 Mission of the Department

- To provide a conducive educational environment for students by providing good infrastructural facilities, knowledge base and excellent faculty support.
- To provide a strong foundation of core knowledge and exposure to research culture.
- To motivate learners to acquire adequate professional and soft skills, to develop personality traits and eventually transform them as life-long learners.
- To strive and achieve practical exposure by maintaining good rapport with industry and professional network.

1.5 Program Specific Outcomes (PSOs)

- To develop knowledge in the domain of signal analysis and processing and provide a foundation to numerous other courses that deals with signal processing applications.

- To develop basic and applied knowledge of the architecture and assembly language programming for microprocessor/microcontroller based systems, along with the peripheral interfacing.

- To provide an in-depth understanding of electromagnetics, transmission lines and antenna concepts along with microwave devices used for RF and microwave applications.

- To develop knowledge of the fundamental techniques related to generation, transmission and reception in communication systems for a wide range of wired and wireless applications along with revolutionary technology developments.

1.6 Program Educational Objectives (PEOs)

- **PEO1:** To prepare learners for graduate studies by providing strong foundation of basic sciences, computer programing and thus, develop analytical aptitude, and problem solving abilities.

- **PEO2:** To develop a fundamental understanding of electronic & integrated circuits, communication systems and allied disciplines.

- **PEO3:** To develop core competency and expertise in the diverse areas of communication covering Signal processing, Electromagnetic Engineering, Embedded Systems, Computer Communication and Advanced Wireless Networks domains.

- **PEO4:** To inculcate competencies and aptitude in extending acquired technical knowledge to solve real life issues with high professional and ethical standards.

- **PEO5:** To develop proficiency in soft skills and deliver adequate personality traits to enable the pass outs to pursue higher education, to find competitive employment opportunities and/or pursue entrepreneurial ventures.

1.7 Department Information

- Started in the year 1999 with the intake of 30 and which was increased to 60 in the subsequent year.

- The intake was increased to 120 in the Academic Year 2010 – 11.

- In the Academic Year 2011 – 12, Department has started M.E. Program in Electronics & telecommunication with an intake of 18 students.

- For the first time Department got NBA accreditation for two years from January 2013. In second Outcome based evaluation, Department got NBA accreditation for three years from July 2017.

- The Department started with Ph.D. program in Academic Year 2015 – 16 with an intake of 10 students.

- The department is having highly qualified, experienced and dedicated faculties and supporting staff.

- Well-equipped labs and fully air conditioned classrooms with projectors

2. ADMINISTRATION

IETE COMMITTEE

Dr. Amit Deshmukh   Prof. Anuja Odhekar

PROJECT COORDINATOR

Dr. Amit Deshmukh   Prof. Ameya Kadam

DEPARTMENTAL LIBRARY

Dr. Amit Deshmukh   Prof. Archana Chaudhari

ALUMNI COMMITTEE

Prof. Shivani Bhattacharjee   Prof. Poonam Kadam

ADMISSION COMMITTEE

Prof. V. V. Kelkar   Prof. Ameya Kadam

NBA CORE COMMITTEE

Dr. Amit Deshmukh   Prof. V. V. Kelkar (PC/NC)

Prof. Ameya Kadam   Prof. Venkata A. P. Chavali

ANTIRAGGING CELL

Prof. T. D. Biradar   Prof. V. V. Kelkar

EXAM COMMITTEE	**NSS Program Coordinator**
Prof. Venkata A. P. Chavali	Prof. Rahul Taware
ANTIRAGGING SQUAD	**DJSCE NEN**
Dr. Amit Deshmukh	Dr S. H. Karamchandani
SPORTS COMMITTEE	**TECHNICAL CHAIR PERSON**
Prof. Ameya Kadam	Prof. T. D. Biradar
TIME-TABLE COMMITTEE	**NPTEL and IBM COORDINATOR**
Prof. Poonam Kadam	Prof. V. V. Kelkar
Prof. Shivani Bhattacharjee	
PLACEMENT COORDINATOR	**WOMEN DEVELOPMENT CELL**
Prof. Aarti Ambekar	Prof. V. V. Kelkar

3. IETE- SF

The Electronics and Telecommunication Department of Dwarkadas. J. Sanghvi College of Engineering presents Institution of Electronics and Telecommunication Engineers- Student Forum (**IETE-SF**). The student chapter with a working force committee of 22, consisting of **second year** and third **year students**, hosted a few of the most quintessential and technically challenging events. A membership drive was conducted at the start of the year with an overwhelming response. (www.djsceietesf.com)

IETE Organizing Committee Structure

IETE SF Branch Counsellor :- Prof. Anuja Odhekar

Chairman	Parthivi Merchant
Vice-Chairman	Bhavya Sekhani, Avi Doshi
Secretary	Akshil Panchal
Jt.Secretary	Harsh Gohil
Treasurer	Shyamal Oza
DJ-Strike Co-ordinator	Prachi Sadarangani, Mansi Parekh, Devna Dave, Pooja Sadarangani

Head Of Departments :

Editorial Head	Ashwin Swaminathan
Publicity	Vrutansh Shah, Anuj Sardesai
Marketing	Keagan Pinto, Ansh Disawal
Technical	Amir Khanbati
Infotech	Rushabh Shroff
Creatives	Janvi Chitroda
Events	Dishay Shah, Pooja Sadarangani
Logistics and Inventory	Harsh Sanghvi, Kalpesh Chaudhary
Book Bank	Krina Shah
Component Bank	Dhruv Bhavsar

3.1 Value Added Program

Book Bank

Book Bank is an initiative made by IETE that makes **reference books** available to students at **10% of the original cost**. It improved the core competency and to strengthen the teaching ability. These books are referred by the faculty members and hence it makes the studying process efficient and helps to increase the student's technological knowledge about the subject. It also helps to build a foundation of the concepts that could enhance the practical skills required in the future. It gets updated every year and has several books to offer currently.

Component Bank

DJSCE IETE-SF proudly introduces the **Component Bank Facility,** through which students can benefit by borrowing components they require at a lower price and return them once their job is done. The worry of buying expensive components and then thinking about what to do with them once the project is finished, is eliminated.

4. DEPARTMENT ACTIVITIES UNDER IETE-SF

4.1 Ethical Hacking Workshop

Expert:

Utsav Bheda(Day 1), Sachin Dhedia (Day 2)

Association of the expert: Certified independent cyber crime investigator, Skynet secure solutions

Date/s of the event: 25th August, 2019 and 1st September, 2019

Participants: 60+ participants

Objectives of the activity:

- To give an introduction and spark interest about ethical hacking in the minds of students
- To explain students how different systems and softwares operate in regard to ethical hacking
- To give highly interested students a direction for future ethical hacking education

Contents:

An ethical hacking workshop was conducted by IETE-SF with ICWiCOM in association with Skynet secure solutions. With increasing dependency on software solutions in our day to day life, cyber security has become extremely essential. Hence, first year engineering students were given an opportunity to dive into this deep science and learn how to protect themselves from experts. The workshop was held on two Sundays.

Mr.Bheda started off day one by telling the students about the five steps of ethical hacking. All the learning process was based on the Microsoft application 'Command prompt'. Through this the students learnt about IP addresses, their computer identity and how computers behave in a network at a fundamental level. The bedrock of this topic, which are the different levels of security were broken down in detail. Later, after the lunch break, a software KaliLinux taught students about ping, zen maps and keyloggers.

On the second day, Mr.Sachin Dhedia came to teach the students. Initially, he explained how to 'inspect elements' in a pre-typed password and how to interpret this information correctly. They were then taught about online phishing and how to avoid it. A software 'Wireless key' was introduced, which helped the students to see what WiFi networks the laptop has been associated with in the past. Lastly, several commands like "msfvenom" and "goldeneye" were taught to students.

The professor concluded on a positive note, encouraged the students to explore such sciences with curiosity and wished them the best of luck for the future.
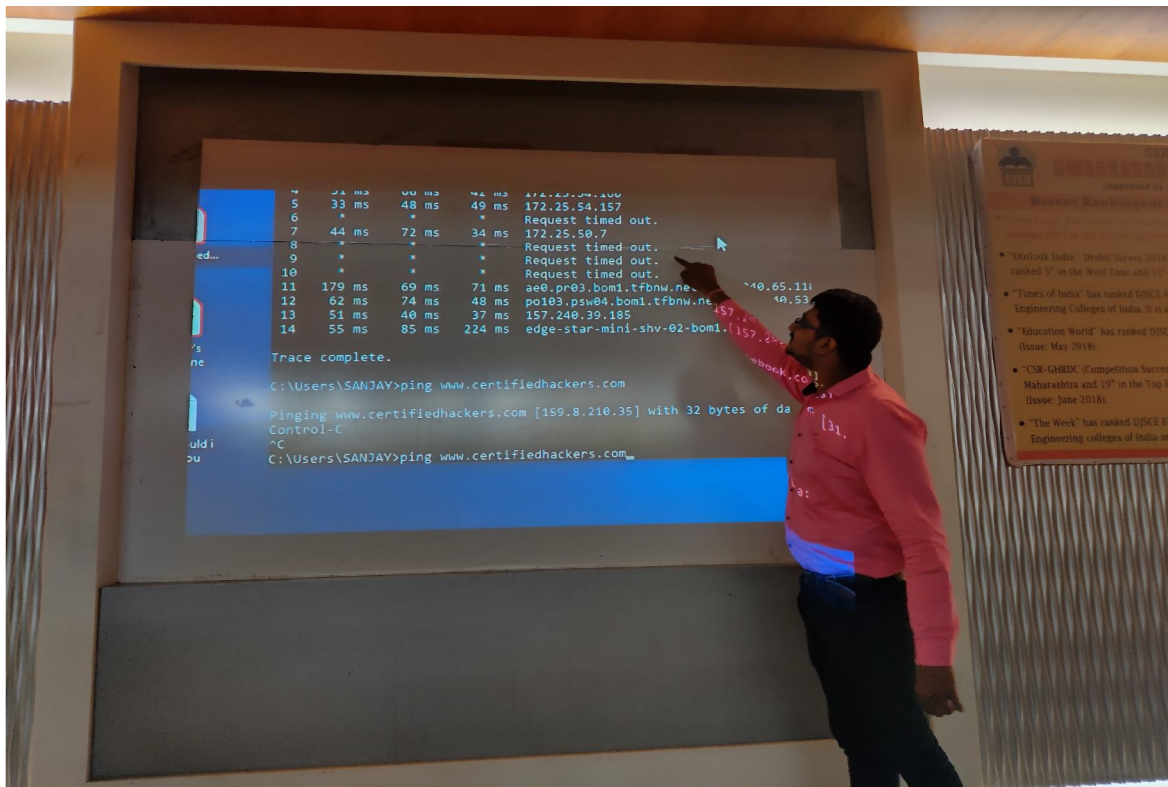
Outcomes:

- Students gained a thorough understanding and introduction about the depth of this topic
- Students learnt about their online and computer identity and police forensics
- Students who were further curious about this subject gained a direction to walk on.

4.2 ICWiCOM 2019

Guest speaker: Dr.Debatosh Guha

Association of the expert: Professor at the Institute of Radio Physics and electronics, university of Calcutta, published over 200+ technical papers, written a reference book on microscripting. Receiver of the IETE RAM LAL WADVANI AWARD (2016)

Plenaries: Dr.Taskeen Nadkar, Dr.Nadeem Akhtar

Date/s of the event: 11th and 12th of October, 2019

Participants: 100+ papers submitted, 60 were presented

Objectives of the activity:

- The review and selection of technical papers on wireless communication
- To give students a deep insight into the field of various fields such as microwave devices, antenna design, signal processing etc.
- To give interested students direction and guidance into these fields

Contents:

The ICWiCom conference was held across two days on the 11th and 12th October. 100+ papers were submitted, with 60 being presented across eight sessions including, for the first time, 2 Skype sessions, which was the highlight of this conference.

Sessions were where authors from various engineering colleges across India presented their papers and a chairperson judged them. The papers presented were placed throughout the two days with the sessions going on simultaneously along with other events. The sessions in which researchers presented their papers were titled 1) microwave devices and antenna design (I,II,III) 2) embedded and communication systems 3) signal processing and machine learning (I,II) 4) wireless communication and networks (I,II)

On the first day, the Keynote speaker and chief guest, Dr. Debatosh Guha, a professor at the Institute of Radio Physics and electronics, university of Calcutta was welcomed and he gave his views on "Wireless- In the eyes of an Antenna engineer". Dr. Guha started by emphasising on being proactive, being ambitious and having set goals. Guha sir started his speech with talking

about the university of Calcutta and a few of the notable alumni from there. He explained the history and evolution of communication started in 1831 by Michael Faraday. People consider Graham Bell's telephone to be the next revolutionary invention, but more credit must be given to Antonio Meucci for inventing the radio in 1884. The first aerial telegraph was sent and many more discoveries were made. Even so, the scientists at the time found it difficult to shape theoretical knowledge into a practical dimension. But the experiment of Michaelson and Morley changed the game. This experiment demonstrated what Maxwell missed. This gave an indirect inspiration to Bose who was researching on mechanical operations by wireless communication in Trans-Atlantic communication. Dr. Guha finished with talking a little about John Fleming, Marconi and Bose's Coherer and all the controversies attached to it. After Dr. Guha, the plenary on the first day was Dr.Taskeen Nadkar who has worked on the Jio project for 7 years. Dr.Nadkar's speech aimed at giving an insight on Cognitive radio and why cognitive radio is the future. She explained the concept, it's scope and limitations. A briefing regarding "Game Theory" was conducted. The objective of the excercise is to achieve "Nash equilibrium", a condition where all players converge at a point making it steady state. She ended by telling some of her experiences as an individual app developer, working in Jio and how the future in cognitive Radio depends on policy regulation. Before the valedictory function, the plenary on the second day consisted of Dr.Nadeem Akhtar on the topic of Wi-Fi 6 (a.k.a AX-Wi-Fi). The origins and history of WiFi was explained by him. The drawbacks and limitations of WiFi over cable internet and the advantages. Dr.Akhtar explained his job profile and what his company does in the area of WiFi 6 through a presentation.

The conference concluded with the valedictory function, in which a vote of thanks was given to the chief guest, SVKM management, the principal and the vice principal. The guidance of HOD sir, efficiency of the OC and systematic execution of events made this conference a huge success.

Outcomes:

- A platform for judging research papers was channeled by by the IETE-SF of D.J.Sanghvi CoE
- Ideas and concepts were discussed in depth during seminars giving students an opportunity to explore the industry

4.3 React Native Workshop

Conducted by: Rushabh Shroff

Date: 8th, 9th, 10th September, 2019.

Participants: 10-15

Objectives of the activity:

● To learn how to develop various mobile applications using React Native.

● To help students keep track of the evolving technology and incorporate the same in their future endeavours.

● To learn the basics of JavaScript.

Contents:

React Native is an open-source mobile application framework that uses JavaScript to develop mobile applications for iOS and Android. The three-day workshop aimed at making five different applications like QR Scanner, TODO App, etc using React Native and various other softwares. The workshop was conducted by the Infotech Head of IETE-SF, Rushabh Shroff. He is adept in various programming languages and has garnered a lot of experience in the same.

Day 1:

The workshop commenced with an introduction to React Native and its relevance in today's age. Along with that, an overview was also given about the various topics that would be covered during the course of the workshop. Rushabh Shroff started off by asking the students to download certain softwares like node.js, visual studio code and Android Studio. These softwares were used to develop the mobile applications. He also instructed the students to use command prompt in order to access these softwares. After downloading all the softwares and initialising them, he moved on to the first Application- QR Scanner. To make the QR Scanner, one can connect their own mobile phone or can download any virtual device from Android Studio. In order to write the code for QR Scanner he used the Visual Studio Code which serves as a text editor. He then explained the basic syntax used in JavaScript used to design or style the mobile application i.e. how to write a text or to change the background of the viewing screen. To access the camera for QR Scanner a package is present on the React Native site. Although this package had a lot of errors, the students were assisted while correcting the errors in the code as well as explained the logic behind the same. After setting up the camera, he

inserted a scan icon between the camera and the QR code. The set-up was now complete and the QR Scanner was successful in reading the QR codes.

Day 2:

Using the same software that had been installed on Day 1, he started with a new application- Notes. This project aimed at adding all the basic functionalities of the Notes application. The participants were then taught about "Navigators" in React Native and how to implement them. Navigators basically handle the transition between different scenes in your application. The drawer navigator and stack navigator majorly helped in bringing the Notes App together. The students also did some styling of this app by using the functions taught yesterday. They also handled the function of adding a new note.

Day 3:

The last day of the workshop started by an introduction to "Promise" in React Native. He taught them the syntax of Promise and how to use them while building an application. Using Promise, the notes app was completed by adding the deleting and saving functionalities to the code. Later, he started with the courses app where he taught the students how to embed YouTube videos of various courses into an app. This app also handled the list of courses and videos. Then the students also learnt about APIs in React. Towards the end, the basics of web scraping including how to use web scraping to develop an app, was also covered.

Outcomes:

● The students learnt the syntax of JavaScript.

● The students understood the logic behind the codes used to develop the various applications.

● The students were successful in formulating the applications with assistance from the expert.

4.4 Faculty Development Program on Wavelets

The Department of Electronics & Telecommunication of Dwarkadas J. Sanghvi College of engineering, on the 2nd and 3rd of August, organized a FDP (Faculty Development Program) on the subject of Wavelets. The entire program was divided into two days, and each day was divided into two sessions: Morning and Afternoon. The following speakers shared their knowledge during the two days.

1) Dr. S.N Merchant of Department of Electrical Engineering, IIT Bombay.
2) Dr. Pal, also from the Department of Electrical Engineering, IIT Bombay
3) Dr. Gargi Phadke, RAIT, Navi Mumbai
4) Dr. Parul Shah, Consultant, Mumbai
5) Dr. Ajit S. Bopardikar, SAIT, Bangalore
6) Dr. Ninad Mehandale, K. J. Sommaya, Mumbai
7) Dr. Pranali Chaudhari, FRCRCE, Navi Mumbai

Following faculties have attended the program.

1) Prof. Vishakha Kelkar
2) Prof. Ranjushree Pal
3) Dr. Sunil Karamchandani
4) Prof. Shivani Bhattacharjee
5) Prof. Mrunalini Pimple
6) Prof. Archana Chaudhari
7) Prof. Yukti Bandi
8) Prof. Revati A. S.
9) Prof. Venkat Ramanan
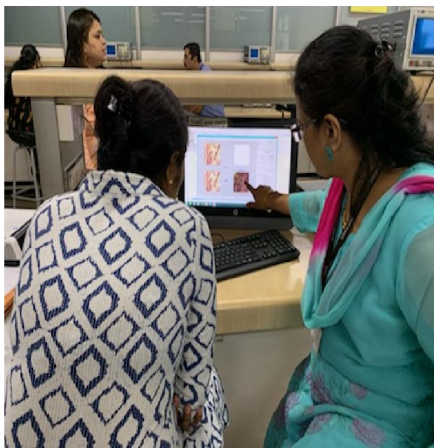
4.5 Spoken tutorial software (FOSS) Training Sessions

Dates of the event: 3rd December 2019 and 05th December 2019

Participants: Students of SE and TE

Objectives of the activity:

Spoken tutorial training program is organised by IIT Bombay at our institute. Many Students are registered for a particular FOSS Program in current semester and when the batch has complete their revision and practice of all the tutorials then online test has been conducted by IIT Bombay in our department on 3rd December 2019 and 05th December 2019.

Contents: FOSS Program

1) Arduino   (Number of Students : 24)
2) Python 3.4.3   (Number of Students : 19)
3) PHP and MySQL   (Number of Students : 16)

Outcomes: On clearing the test participants got 'Completion Certificate' automatically.

4.6 Guest lectures by New Zealand University's senior academic

Three lecture sessions were planned separately for Elex/EXTC/BioMed, Comp/IT & Mech/Prod students. Three experts of different New Zealand university delivered the sessions as per below schedule in CR 51, CR 42 & CR COMP2. Around 116 students of COMP/IT dept., 114 students from MECH/PROD dept. & 84 students from EXTC/ELEX/BioMed dept. attended the same.

Name of Faculty	New Zealand university	Guest Lecture topic	Faculty of students who should attend	Date of lecture
Prof Ramesh Rayudu Click here for faculty profile	Victoria University of Wellington	Sustainable Development Goals in Science and Engineering	UG/PG students from Engineering faculties	Monday, 19th August
Associate Prof Gourab Sen Gupta Click here for faculty profile	Massey University	Sensors, Robotics and Automation: Applications in Food and Agriculture	UG/PG students from Mechanical/Mechatronics faculties	Monday, 19 August
Dr Stephen Thorpe Click here for faculty profile	AUT University	Teaching intelligent autonomous machines to be ethical and to present the current debate.	UG/PG students from IT, Computer Science Engineering	Monday, 19th August

4.7 Imperial Education Fair

Education Fair for all DJSCE students was organized by Imperial overseas education consultants.

5. ACHIEVEMENTS

5.1 Faculty Publications- Conferences / Journals

Sr. No.	Name of Faculty	Title
1.	Dr. Amit Deshmukh	1. Amit A. Deshmukh, Amita Mhatre , "Rectangular slots Loaded Nearly Square Microstrip Antenna for Multi-band and Circular Polarized Response" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
		2. Amit A. Deshmukh, Rutuja Patil, Rahul Maurya, "Varying Angle Triangular Microstrip Antenna For Circular Polarized Response" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
		3. Amar Choudhary, K P Ray, Amit A Deshmukh, "Compact Wideband Printed Quasi-Yagi Antenna Fed By Monopole Element" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
		4. Akshita V. Nichani, Shruti T. Pistolwala, Amit A. Deshmukh, Manali J. Godse, "Tele Health Monitoring System" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
		5. Amit A. Deshmukh, and Akshay V. Doshi, "Open Circuit Stub Loaded Modified 40^0 Triangular Microstrip Antenna For CP Response", Proceedings of ICWiCOM 2019, 11th – 12th October 2019,Mumbai, India (https://link.springer.com/chapter/10.1007/978-981-15-1002-1_2).
		6. Amit A. Deshmukh, Venkata A. P. Chavali, Archana Nishad, and Harshita Zala, "Modified Design Of E-shape Microstrip Antenna Loaded With Modified Circular Loop For Circular Polarized Response", Proceedings of

		ICWiCOM 2019, 11th – 12th October 2019,Mumbai, India (https://link.springer.com/chapter/10.1007/978-981-15-1002-1_18).
		7. Amit A. Deshmukh, Venkata A. P. Chavali, Archana Nishad, and Harshita Zala, "Modified Design Of E-shape Microstrip Antenna Loaded With Modified Circular Loop For Circular Polarized Response", Proceedings of ICWiCOM 2019, 11th – 12th October 2019,Mumbai, India (https://link.springer.com/chapter/10.1007/978-981-15-1002-1_18).
		8. Amit A. Deshmukh, Akshay V. Doshi and K. P. Ray, "Multi and Wide-band Circularly Polarized Gap-coupled Stack Modified Triangular Microstrip Antennas", Proceedings of ICWiCOM 2019, 11th – 12th October 2019, Mumbai, India (https://link.springer.com/chapter/10.1007/978-981-15-1002-1_16).
		9. Amit A. Deshmukh, Megh Shukla, Stuti Patel, Saurabh Labde, and Venkata A. P. Chavali, "Artificial Neural Network Model For Calculating The Dimensions Of Circular And Semi-circular Microstrip Antennas For Given Resonance Frequency", Proceedings of ICWiCOM 2019, 11th – 12th October 2019, Mumbai, India (https://link.springer.com/chapter/10.1007/978-981-15-1002-1_22).
		10. Amit A. Deshmukh, and Divya Singh, "Design of Plus Shape Microstrip Antenna Variations for Enhanced Wideband Response", Proceedings of ICWiCOM 2019, 11th – 12th October 2019, Mumbai, India

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		(https://link.springer.com/chapter/10.1007/978-981-15-1002-1_24).
		11. Amit A. Deshmukh, and Mohil Gala, "On The Design of Compact Rectangular Microstrip Antenna For Achieving Wideband Response", Proceedings of ICWiCOM 2019, 11th – 12th October 2019,Mumbai, India (https://link.springer.com/chapter/10.1007/978-981-15-1002-1_25).
		12. Amit A. Deshmukh, Venkata A. P. Chavali, Aarti G. Ambekar and Mohil Gala, "Design of Compact Semi-circular Microstrip Antenna Loaded with Shorting Post", Accepted for Presentation in ICACC 2019, 6th – 8th November 2019, Kochi, India (IEEE digital library).
		13. Amit A. Deshmukh, Mohil Gala, Ameya Kadam and S. B. Deshmukh, "Wideband Modified Shorted Rectangular Patch Antenna Using L-shape Feed", Accepted for Presentation in INCAP 2019, 19th – 22nd December 2019, Ahmedabad, India (IEEE digital library).
		14. Amar Choudhary, K. P. Ray and Amit A. Deshmukh, "Microstrip Fed Elliptical Slot UWB Antenna for Band Notch Response", Accepted for Presentation in INCAP 2019, 19th – 22nd December 2019, Ahmedabad, India (IEEE digital library).
		15. Bharati Singh, Nisha Sarvade, K. P. Ray and Amit A. Deshmukh, "Tapered antenna array with non-identical Triangular MSA elements for FSLL reduction", Wireless Personal Communications, (http://link.springer.com/article/10.1007/s11277-019-06218-z), Springer Journal.
		16. Amit A. Deshmukh and Priyanka Verma, "Multi-Band Dual Polarized Variations of Modified Circular Microstrip

		Antennas", Accepted for publication in IETE Journal of Research (DOI: 10.1080/03772063.2019.1604179).
		17. S. S. Kakatkar, Amit A. Deshmukh, and K. P. Ray, "Internal admittance elements of a rectangular waveguide longitudinal slot using the image method", ELECTROMAGNETICS Journal, (DOI: 10.1080/02726343.2019.1619230).
2.	Prof. Vishakha Kelkar	1. Vishakha Kelkar , Revathi A S, " Analysis of different font types and sizes for high quality watermarked, extracted watermarked and medical images using HS based reversible watermarking" in 10th international conference on computing, communication and networking Technologies at IIT Kanpur, India, in association with IEEE UP Section, held during July 06-08, 2019.
3.	Prof. S. B. Deshmukh	1. Sanjay B. Deshmukh and Amit A. Deshmukh, "Wide Band Designs of Rectangular Microstrip Antenna Using Paracitic C-shaped Patches" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
4.	Prof. Poonam Kadam	1. Poonam Kadam, Amit A. Deshmukh, "Modal Analysis Of Compact Dual Band Defected Ground Microstrip Antenna" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.
5.	Prof. Anuja Odhekar	1. Anuja A Odhekar, Amit A Deshmukh, "Variations of Slot cut and Stub loaded Square Microstrip Antenna for Circular Polarization" Journal of Wireless Personal Communication, Springer DOI : 10.1007/s11277-019-06878-x WIRE-D-18-01409R0
		2. Anuja A Odhekar, Amit A Deshmukh, "Realization of Broadband Circularly Polarized Antenna using Stacked Star Shape Microstrip Antenna" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.

		3. Anuja A Odhekar, Amit A Deshmukh, "Swastika Shaped Diagonal Slot on Square Microstrip Antenna for Circular Polarization" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.
6.	Prof. Rahul Taware	1. Satya Mehta, Rahul Taware, "Smart Traffic control using Bluetooth Mesh Technology" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
7.	Prof. Shivani Bhattacharjee	1. Anish Shetty, Harin Vashi, Aamir Khambaty, Devna Dave, Janvi Chitroda, Mohsin Khan, Shivani Bhattacharjee, "Wi-Fi Controlled Robotic Arm Using Arduino" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
		2. Vedant Gokani, Abhinav Kashyap, Shivani Bhattacharjee,"Handoff Control using Fuzzy Logic" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
8.	Prof. Ameya Kadam	1. Ameya Kadam, Amit A. Deshmukh, K. P. Ray, "Modal Analysis of Dual Band-notched UWB Printed Antenna with U-shaped and C-shaped Slots" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
		2. Ameya Kadam, Amit A. Deshmukh, K. P. Ray, "Modal and time domain analysis of symmetric E-shaped slots for UWB Antenna with frequency band notched response" in ICWiCOM 2019 organized by DJSCE Mumbai on 11th and 12th October 2019.
9.	Dr. Sunil Karamchandani	1. Megh Doshi, Meet Doshi, Sunil Karamchandni, " Design and Analysis of single and multi-core antennas for under water sensing" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.
		2. Wallace Dalmet, Abhishek Das, Vivek Dhuri, Moinuddin Khaja and Sunil Karamchandani, "Siamese Manhattan

			LSTM Implementation for Predicting Text Similarity and Grading of Student Test Papers" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.
		3.	Shruti T. Pistolwala, Parth Thakkar, Sunil Karamchandani, "Non-invasive Carotid Arteries Pulse Monitoring System" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.
10.	Prof. Ranjushree Pal	1.	Ranjushree Pal, "Speech compression by Wavelet Transform and mu law for wireless communication" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.
11.	Prof. Venkata A. P. Chavali	1.	Venkata APC, Amit A. Deshmukh, K. P. Ray, "Analysis of 270° Sectoral Microstrip Antenna with Shorting Post and Open circuit Stubsfor Wideband Response"in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.
		2.	Venkata APC, Amit A. Deshmukh, K. P. Ray, ""Analysis of Butterfly Shaped Compact Microstrip Antenna for Wideband Applications" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.
		3.	Venkata APC, "Circular Microstrip Antenna with Parasitic Annular Sectors for broadband Response" in the 9th international conference on Adavances in computing and communications(ICACC-2019)at Rajagiri School of Engineering and Technology, Kochi, Kerala, Indiaon 6th and 7th November 2019.
		4.	Venkata A P C, Shane Fernandes, Aarti G.Ambekar, Amit A. Deshmukh, "Variation of E-shape Microstrip Antenna with Tapered Patch-width for Wideband Response" in ICWiCOM 2019organized by DJSCE Mumbai on 11th and 12th October 2019.

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12.	Prof. Archana Chaudhari	1.	Archana Chaudhari, Jahnavi Patel, Krishi Savla, Akshitha Shetty, Vrushika Shah, "Women's Safety Band using IOT" ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai
13.	Prof. Arati Ambekar	1.	Aarti G. Ambekar, Amit A. Deshmukh, K. P. Ray, "Stub Loaded Semi-Annular Ring Microstrip Antenna For Multiband Dual Polarized Response" ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai
		2.	Aarti G. Ambekar, Amit A. Deshmukh, K. P. Ray, "Dual polarised variations of P shape Microstrip antenna loaded with stub Dual polarised variations of P shape Microstrip antenna loaded with stub" ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai
		3.	Aarti G. Ambekar, Amit A. Deshmukh, K. P. Ray, "Analysis of Dual band response of slot loaded rectangular microstrip antenna using defected ground structure" ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai
		4.	Aarti Ambekar, "Modified S-shape Microstrip Antenna for dual polarized Multiband and WidebandResponse" 9th International Conference on Advances in Computer and Communications (ICACC 2019) on 6th and 7th November,2019 Organized by Rajagiri School of Engineering and Technology, Kochi, Kerla
14.	Prof. Yukti Bandi	1.	Suyash Ail, Bhargav Chauhan, Harsh Dabhi, Viraj Darji, Yukti Bandi, "Hand Gesture Based Vocaliser for the speech Impaired", ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai
		2.	Parth T. Thakar, Nigam Shah, Rishabh Shah, Vibhav Sharma, Yukti Bandi, " Antenna Based RF Energy Harvesting" ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai

15.	Prof. Revathi A. S.	1. Tito Nadar, Mehul Rawal, Jay Patel, Abhishek Shah, Revathi A. s., " A Novel Aproach to implement Decentralised Voting System using Blockchain" ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai
16.	Prof. Tushar Sawant	1. Pooja V. Jha, Parth T. Thakar, Tushar Sawant, "Prepaid Energy Meter using Solar Power and Wi-Fi" " ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai
17.	Prof. Venkat Ramanan	1. Abhishek Das, Venkataramanan.V, "Study of performance of an OFDM Transceiver using SDR platform" ICWiCOM2019 on 11th and 12th October,2019 Organized by DJSCE, Mumbai

5.2. Interaction of faculty with outside world

Sr. No.	Name of Faculty	Description
1.	Dr. Amit Deshmukh	As examiner for PhD annual progress seminar evaluation at VJTI, SPIT and TCET, Mumbai
		Deliever Lecture on Antenna design – Modal analysis perspective at STTP on RF design and Antennas held in K J Somaiya College of Engineering and Technology, Sion, During July 2019
		Member of LIC committee visit on behalf of University of Mumbai for PhD centers in SFIT, Borivali
2.	Dr. Sunil Karamchandani	Appraiser at the Annual Progress Seminar for PhD candidates at RGIT, Mumbai 27th September 2019.
		Current Research Trends in Signal and Image Processing, 17th July 2019 RJIT Mumbai

5.3 Faculty Awards

Sr. No.	Name of Faculty	Description
1	Ameya A Kadam	Completed 12 week NPTEL course on "Microwave Engineering" stands Topper with Exam Score 80%
2	Ameya A Kadam	Completed 12 week NPTEL course on "Microwave Theory and Techniques " stands Topper with Exam Score 97%

6. Result Analysis

Class:- SE

No. of students: 149

	Distinction	I Class	II Class	Pass class	Fail
SE Result Analysis(SEM IV) May 2019	90	31	15	4	9

Subject	Appeared	Pass	Fail
Applied Mathematics IV	149	148	1
Elctronic Devices and Circuits II	149	149	0
Linear Integrated Cicuits	149	144	5
Sygnals & Systems	149	148	1
Principles of Communication Engineering	149	145	5

SE Result Analysis (SEM IV) for May 2019
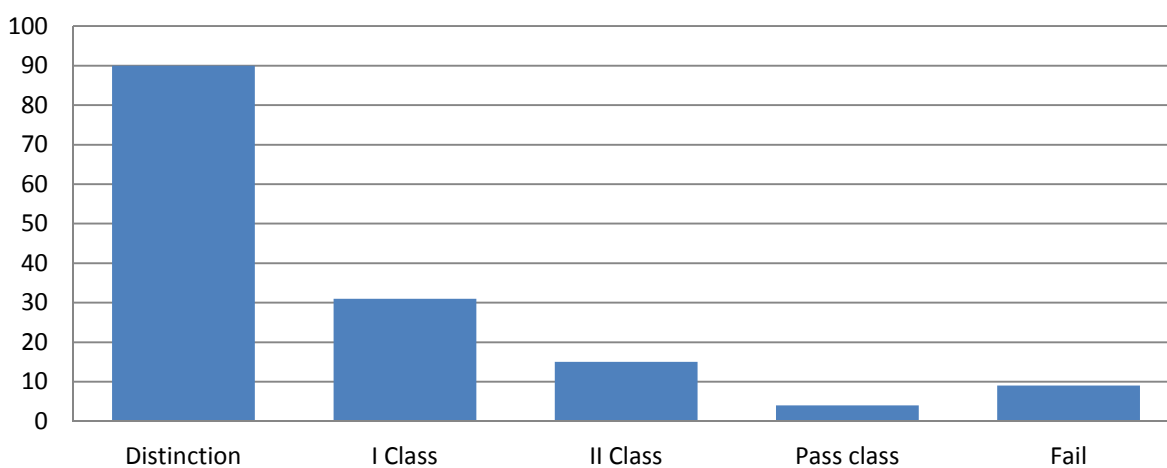
Name	Rank	GPA
Dhruv Bhavsar	First	10
Shyamal Oza	Second	9.98
Nishi Modi	Third	9.96

Class: TE

Total No. of students = 148

	Distinction	First class	Second class	Pass class	Fail
TE Result Analysis(SEM VI)-MAY 2019	79	43	13	3	9

Subject	Appeared	Pass	Fail
Microprocessor And Applications	147	144	3
Computer Communication & Networks	147	144	3
Antenna & Radio Wave Propagation	147	144	3
Image Processing and Machine Vision	147	145	2
Digital VLSI Design	7	7	0
Audio Processing	5	5	0
Database Management System	135	135	0

TE Result Analysis (SEM VI) for MAY-2019
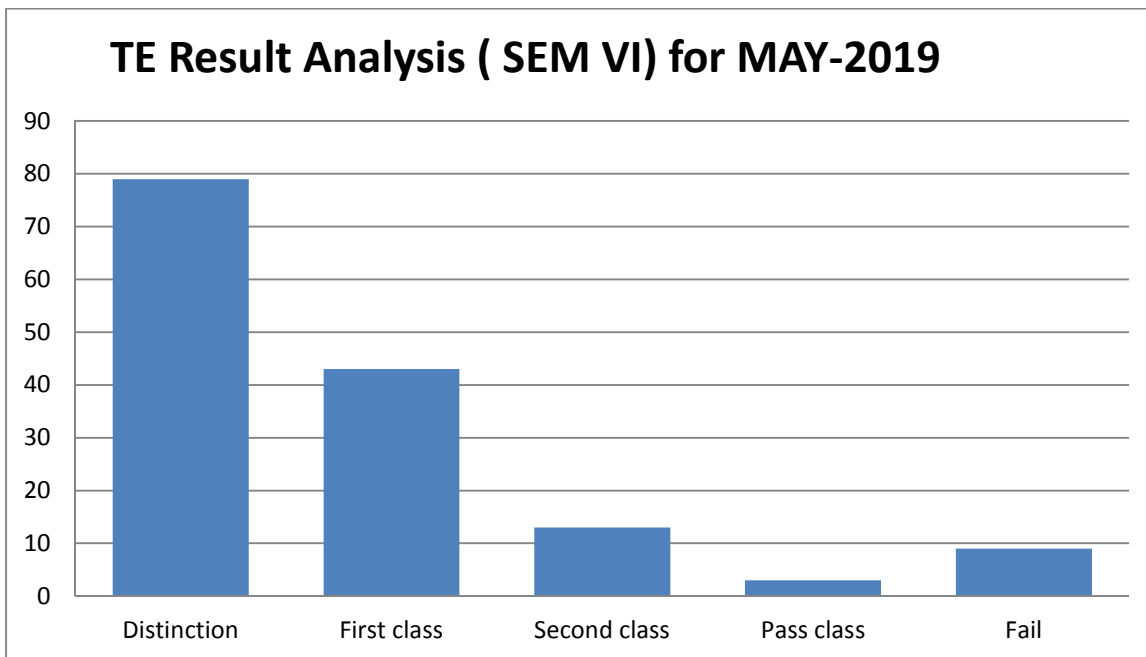
Name	Rank	GPA
Chitrey Ajinkya	First	9.84
Deo Rohan	Second	9.68
Magar Nikita	Second	9.68
Khetan Ashutosh	Third	9.52

Class: BE

Total No. of students = 147

	Distinction	First class	Second class	Pass class	Fail
BE Result Analysis(SEM VIII)- May 2019	109	32	4	0	2

Subject	Appeared	pass	fail
Wirelss Networks	147	146	1
Satellite Comm & Network	147	146	1
Internet& Voice Comm	147	147	--
Speech Processing	147	147	--
Telecom Network Management	147	146	1
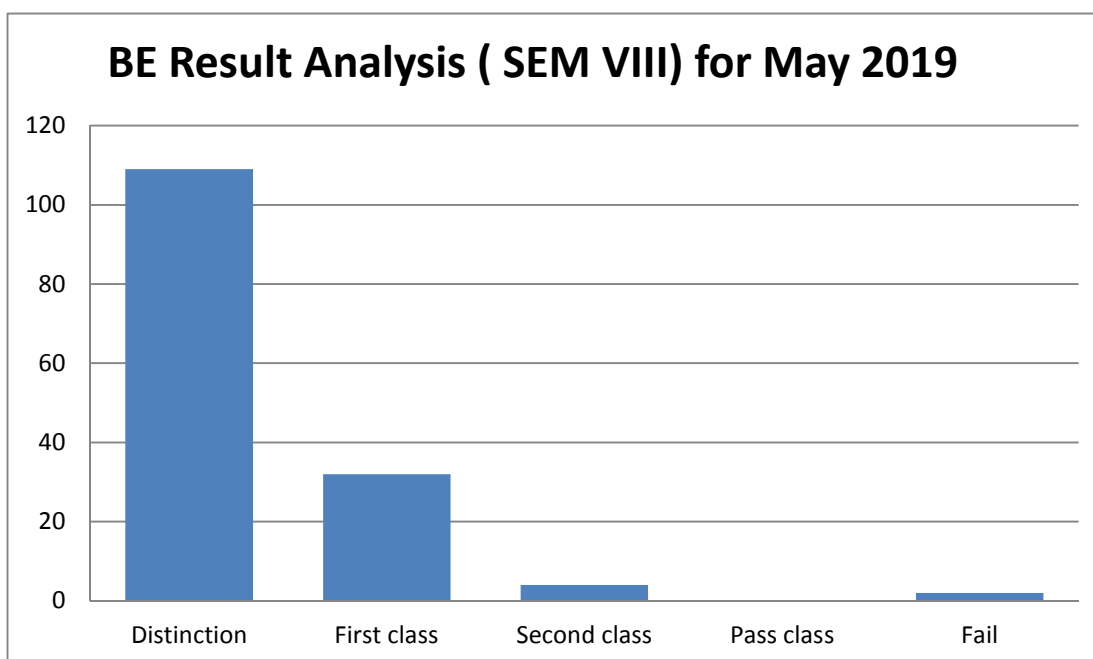
BE Result Analysis (SEM VIII) for May 2019

Name	Rank	GPA
Dalmet Wallace	First	9.48
Pratik Sankhe	Second	9.46
Rumi Desai	Third	9.41

Department of Electronics & Telecommunication Engineering   Academic Year 2019-20

7. Placement Data

Total no. of Students placed Company wise = 109

Sr. No.	Company Name	No. of Students Placed	Salary Per Annum(LPA)
1.	ZS	4	8.9
2.	GEP	4	8
3.	TCS digital hiring	1	7.5
4.	Edelweiss	4	7
5.	Quantiphi	5	6.5
6.	Think Analytics	2	6.5
7.	OFSS	3	5.8
8.	LTI	31	5
9.	Amdocs	1	5
10	Media.net	1	4.5
11	ENY	7	4.25
12.	Deloite	3	4.12
13.	TCS Ninja	12	3.5
14.	Reliance Jio	3	3.5
15.	Infosys	28	3.15
Minimum CTC in LPA: 3.15 LPA	**Maximum CTC in LPA : 8.9 LPA**		

Shri Vile Parle Kelavani Mandal's
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC Accredited with "A" Grade (CGPA : 3.18)

ACADEMIC BULLETIN

Jan2020- June2020

Department of Electronics & Telecommunication Engineering

Prepared By:

Ms. Archana Chaudhari

(Assistant Professor, EXTC, DJSCE)

Mr. Tushar Sawant

(Assistant Professor, EXTC, DJSCE)

Dr. Amit A. Deshmukh

(Professor & Head EXTC, DJSCE)

ACADEMIC BULLETIN

Period: 1st Jan 2020 – 30th June 2020

1. About Department

   1.1 Vision

   1.2 Mission

   1.3 Vision of the Department

   1.4 Mission of the Department

   1.5 Program Specific Outcomes(PSOs)

   1.6 Program Educational Objectives (PEOs)

   1.7 Department Information

2. Administration

3. IETE-SF

   3.1 Value Added Program (Book Bank, Component Bank)

4. Department Activities under IETE-SF

   4.1 DJ Spark
   4.2 Seminar on Technical Paper Writing
   4.3 Industrial Visit to GMRT, Khodad
   4.4 Seminar on Placement Guidance – IETE Fortnight
   4.5 Workshop on MATLAB Software- IETE Fortnight
   4.6 Workshop on Antenna Design using Computer Simulation

      Technology Software –IETE Fortnight
   4.7 DJS ARYA
   4.8 DJS Antariksh

5. Achievements

   5.1 Faculty Publications-Conference/Journal

   5.2 FDP Attended by Faculty Members

   5.3 STTP Attended by Faculty Members

   5.4 Webinars Attended by Faculty Members

1. ABOUT DEPARTMENT

1.1 Vision

To be a world class Institution for education, training and research in engineering, inculcating values and skills for sustainable development of the society.

1.2 Mission

- To provide competent faculty and an interactive learning environment along with world class infrastructure for nurturing professionalism & entrepreneurship in Engineers.
- To foster technical competence, research aptitude and environmental awareness amongst aspiring technocrats to develop sustainable engineering solutions.
- To provide a forum for active interaction between academia & industry, leading to continuous improvement in engineering education.

1.3 Vision of the Department

To develop technically competent and socially responsible Electronics and Telecommunication engineers capable of fulfilling expectations at indigenous and global levels.

1.4 Mission of the Department

- To provide a conducive educational environment for students by providing good infrastructural facilities, knowledge base and excellent faculty support.
- To provide a strong foundation of core knowledge and exposure to research culture.
- To motivate learners to acquire adequate professional and soft skills, to develop personality traits and eventually transform them as life-long learners.
- To strive and achieve practical exposure by maintaining good rapport with industry and professional network.

1.5 Program Specific Outcomes (PSOs)

- To develop knowledge in the domain of signal analysis and processing and provide a foundation to numerous other courses that deals with signal processing applications.

- To develop basic and applied knowledge of the architecture and assembly language programming for microprocessor/microcontroller based systems, along with the peripheral interfacing.

- To provide an in-depth understanding of electromagnetics, transmission lines and antenna concepts along with microwave devices used for RF and microwave applications.

- To develop knowledge of the fundamental techniques related to generation, transmission and reception in communication systems for a wide range of wired and wireless applications along with revolutionary technology developments.

1.6 Program Educational Objectives (PEOs)

- **PEO1:** To prepare learners for graduate studies by providing strong foundation of basic sciences, computer programing and thus, develop analytical aptitude, and problem solving abilities.

- **PEO2:** To develop a fundamental understanding of electronic & integrated circuits, communication systems and allied disciplines.

- **PEO3:** To develop core competency and expertise in the diverse areas of communication covering Signal processing, Electromagnetic Engineering, Embedded Systems, Computer Communication and Advanced Wireless Networks domains.

- **PEO4:** To inculcate competencies and aptitude in extending acquired technical knowledge to solve real life issues with high professional and ethical standards.

- **PEO5:** To develop proficiency in soft skills and deliver adequate personality traits to enable the pass outs to pursue higher education, to find competitive employment opportunities and/or pursue entrepreneurial ventures.

1.7 Department Information

- Started in the year 1999 with the intake of 30 and which was increased to 60 in the subsequent year.

- The intake was increased to 120 in the Academic Year 2010 – 11.

- In the Academic Year 2011 – 12, Department has started M.E. Program in Electronics & telecommunication with an intake of 18 students.

- For the first time Department got NBA accreditation for two years from January 2013. In second Outcome based evaluation, Department got NBA accreditation for three years from July 2017.

- The Department started with Ph.D. program in Academic Year 2015 – 16 with an intake of 10 students.

- The department is having highly qualified, experienced and dedicated faculties and supporting staff.

- Well-equipped labs and fully air conditioned classrooms with projectors

2. ADMINISTRATION

IETE COMMITTEE	Dr. Amit Deshmukh
	Prof. Anuja Odhekar
PROJECT COORDINATOR	Dr. Amit Deshmukh
	Prof. Ameya Kadam
DEPARTMENTAL LIBRARY	Dr. Amit Deshmukh
	Prof. Archana Chaudhari
ALUMNI COMMITTEE	Prof. Poonam Kadam
	Prof. Shivani Bhattacharjee
ADMISSION COMMITTEE	Prof. V. V. Kelkar
	Prof. Ameya Kadam
NBA CORE COMMITTEE	Dr. Amit Deshmukh
	Prof. V. V. Kelkar (PC/NC)
	Prof. Ameya Kadam
	Prof. Venkata A. P. Chavali
AUTONOMY COORDINATOR	Prof. Sanjay Deshmukh
	Prof. Archana Chaudhari
ANTIRAGGING CELL	Prof. T. D. Biradar
	Prof. V. V. Kelkar
EXAM COMMITTEE	Prof. Venkata A. P. Chavali
NSS PRGRAM COORDINATOR	Prof. Rahul Taware
ANTIRAGGING SQUAD	Dr. Amit Deshmukh
DJSCE NEN	Dr S. H. Karamchandani
SPORTS COMMITTEE	Prof. Ameya Kadam
TECHNICAL CHAIR PERSON	Prof. T. D. Biradar
TIME-TABLE COMMITTEE	Prof. Poonam Kadam
	Prof. Shivani Bhattacharjee
NPTEL and IBM COORDINATOR	Prof. V. V. Kelkar
PLACEMENT COORDINATOR	Prof. Aarti Ambekar
WOMEN DEVELOPMENT CELL	Prof. V. V. Kelkar

3. IETE- SF

The Electronics and Telecommunication Department of Dwarkadas. J. Sanghvi College of Engineering presents Institution of Electronics and Telecommunication Engineers- Student Forum (**IETE-SF**). The student chapter with a working force committee of 22, consisting of **second year** and third **year students**, hosted a few of the most quintessential and technically challenging events. A membership drive was conducted at the start of the year with an overwhelming response. (www.djsceietesf.com)

IETE Organizing Committee Structure

IETE SF Branch Counsellor :- Prof. Anuja Odhekar

Chairman	Parthivi Merchant
Vice-Chairman	Bhavya Sekhani, Avi Doshi
Secretary	Akshil Panchal
Jt.Secretary	Harsh Gohil
Treasurer	Shyamal Oza
DJ-Strike Co-ordinator	Prachi Sadarangani, Mansi Parekh, Devna Dave, Pooja Sadarangani

Head Of Departments :	
Editorial Head	Ashwin Swaminathan
Publicity	Vrutansh Shah, Anuj Sardesai
Marketing	Keagan Pinto, Ansh Disawal
Technical	Amir Khanbati
Infotech	Rushabh Shroff
Creatives	Janvi Chitroda
Events	Dishay Shah, Pooja Sadarangani
Logistics and Inventory	Harsh Sanghvi, Kalpesh Chaudhary
Book Bank	Krina Shah
Component Bank	Dhruv Bhavsar

3.1 Value Added Program

Book Bank

Book Bank is an initiative made by IETE that makes **reference books** available to students at **10% of the original cost**. It improved the core competency and to strengthen the teaching ability. These books are referred by the faculty members and hence it makes the studying process efficient and helps to increase the student's technological knowledge about the subject. It also helps to build a foundation of the concepts that could enhance the practical skills required in the future. It gets updated every year and has several books to offer currently.

Component Bank

DJSCE IETE-SF proudly introduces the **Component Bank Facility,** through which students can benefit by borrowing components they require at a lower price and return them once their job is done. The worry of buying expensive components and then thinking about what to do with them once the project is finished, is eliminated.

4. DEPARTMENT ACTIVITIES UNDER IETE-SF

4.1 DJ Spark

DJ Spark is an annual project based state level competition where students are provided with an opportunity to showcase their technical skills and compete at multiple fronts with other students from all across Maharashtra. In order to participate in DJ Spark, one has to send across a technical paper of any on-going project or any other projectidea which they aim to execute. The technical paper should be in accordance with the IEEE format. After sending the technical paper at the mentioned email-address, they will be subjected to scrutiny and assessment by the faculty of the EXTC department. The short-listed teams will then be given a chance to exhibit their projects at our very own college. In addition to this, their project will also be assigned an ISBN Number, irrespective of whether the team wins the competition, which holds immense value during the course of engineering. On the contrary, those who win the competition are awarded cash prizes and other exciting prizes. DJ Spark proves to be an inspiration to budding engineering students and gives them an incentive to expand their knowledge, indulge in application based learning and flourish. It encourages students to step outside of their comfort zones and build something innovative, catering to an array of applications and at the same time bring about a change in the world.

4.2 Seminar on Technical Paper Writing

Expert: Prof. V. Venkataraman, Assistant Professor, EXTC Department

Date of the event: 15th January, 2020

Number of participants: 45

Objectives of the activity:

- To help understand the relevance of technical paper writing in Engineering.
- To enhance paper presenting skills of students.
- To enlighten students about various aspects of a technical paper.

Content:

The seminar on Technical Paper Writing took place on 15th January. It was conducted by Professor V. Venketramanan, a senior faculty of the department of Electronics and Telecommunication with the main motive of educating students about the various guidelines that lead to the generation of a good technical paper. The seminar commenced with him explaining the relevance of technical paper writing. There are two methods that can be adopted to try and gather the information to start working on publishing the paper. The first is the engineering approach and the second is the scientific approach. The common structure that both of these methods employ are as follows, firstly we must define the need of the project, then a certain amount of background research should be done along with keeping a record of the bibliography. Specify the requirements and define the target user and the customer. This is the most important part of the research. Similar projects that have been submitted in the past must be looked up and research must be done to establish required criteria. He then explained both methods in detail giving examples for both. An important concept in both the methods was iteration. An elaborate explanation was then provided on iteration as well.

He then summarized the entire procedure in short and how to identify the keywords in the given problem statement. This was just the general overview to how one must approach paper writing. After the general overview the professor then moved onto the actual format of a technical paper and explained each section in detail.

Abstract is the first thing that we must work upon. This must be only three hundred words at the most. It must include purpose and design of project, the materials required and concepts used for the project must be included in the abstract. Most importantly we must consider the target audience for the project. An abstract sample was provided with an introduction, methods used, result and a general discussion on the common mistakes students tend to make while writing the abstract. This generally tends to occur in the length or missing information.

Introduction follows Abstract. We must announce the topic in the introduction and give some background on the project. Keywords must be referred to while writing the introduction and a review of literature must also be provided along with the scope of the topic, the outline of the current situation revolving around the topic and advantages and disadvantages we might face on having the project implemented. This must be around 900 words long.The length of the introduction must not exceed 900 words.

Next comes the Review of Literature. Citations must be provided while writing this. Scan through papers written on similar topics before and write about at least three papers that have made projects on similar concepts. Block diagram must come next. The working principle and algorithms for software based projects are to be put in after the block diagram.

For the result, we must include the finding of the study without bias or interpretation and arranged in a logical sequence. Preferably graphs and tables should be used to represent the data. In the conclusion, a summary of all the points covered before must be provided the topic must be restated with a statement based upon evidence provided. Lastly the Future Scope and References must be covered.

The session concluded with Prof. V. Venketramanan talking about how one needs to just start writing and then over time with constant revision, one can finally master the art of writing a good technical paper.

Outcomes:

- Students learnt the dos and don'ts of technical paper writing.

- They were made to realize how technical paper writing is as imperative as the technical project.

- They understood the impact of constant content improvisation and formatting during technical writing.

4.3 Industrial Visit to GMRT, Khodad

Date of the event: 17th January, 2020.

Number of participants: 30-35

Objectives of the activity:

- To enlighten the students about the functioning of GMRT.
- To impart wisdom about radio astronomy and receiver technology.
- To expand the knowledge of students in the field of telecommunication.

Details:

An Industrial Visit was organised on 17th January, 2020 to the GMRT located in Khodad near Pune. GMRT stands for Giant Metre wave Radio Telescope. It is handled by the National Centre of Radio Astrophysics which is a part of the Tata Institute of Fundamental Research, Mumbai. This facility was specially set up for astronomical research.

The GMRT has a Y-shaped array of antennas. About 13 to 14 antennas are concentrated at the centre while the remaining ones are spread out in three different directions. The interferometric array of antennas can estimate readings up to a minimum distance of 25km. Each dish has a diameter of 45m. The design of each dish has been manufactured using the SMART concept. This concept has helped inculcate structural strength and implement weight reductions in the design. SMART stands for Stretch Mesh Attached to Rope Trusses. Due to this, GMRT has proven to be a mechanically strong structure. A grid-like structure is also present at the centre of the dish. The mesh inside this grid is made up of stainless steel wire. This wire is stretched above the rope trusses and thus acts as the reflecting material of the dish.

The GMRT is based on the principle of interferometry which involves interference of electromagnetic waves to extract information. These electromagnetic waves assist the GMRT to study astronomical objects and celestial bodies. Another criterion on which the functioning of GMRT is based is Amplitude Modulation. The bandwidth of the signal is divided into 50MHz, 120-250MHz, 250-500MHz, 550-900MHz, and 1.4-1.5 GHz. All six bands are featured to operate simultaneously and have good polarisation characteristics.

The electronics involved in the dishes are very indigenous and uniquely developed. It has a ten receiver structure system inbuilt. This receiver system includes a superheterodyne receiver. This receiver adopts the method of frequency mixing to convert a received signal into an IF signal. The GMRT also contains low noise amplifiers, mixers, IF amplifiers and bandpass filter. Motors are used for detecting the azimuth, deviation and the feed of the celestial body.

To establish communication between other dishes and the centre, optical fibres are used. They are present on the surface of the dishes and link the entire array of antennas with one another. The waves from the dishes of antennas are focussed at one point in order to make observations. The multiplication of radio signals from different antennas over several hours leads to the formation of the radio signal of a celestial body with a very high resolution. This radio signal of an astronomical object is then studied and various conclusions can be drawn from the same.

Outcome:

- Students acquired information about the working and telemetry of GMRT.
- They witnessed the antennas present at the GMRT and understood its functioning.
- They learnt about new concepts related to the field of telecommunication which can be utilised in future projects.

4.4 Seminar on Placement Guidance – IETE Fortnight

Expert: Prof. Tushar Sawant, Assistant Professor, EXTC Department

Date: 1st February 2020.

Number of students participated: 100

Year: S.E and T.E

Objectives of the activity:

- To help students understand the dynamics, intricacies, structure and culture of the placement process
- To prepare students both for technical and non-technical placement aspects
- To deliver placement information from a candidate placed in a Superdream Company personally

Details:

The workshop conducted by Prof. Tushar Sawant's held on Saturday, 1st February, 2020. The workshop began with the professor telling the students about the standard placement test structure including the aptitude test, group discussion and finally the personal interview. The professor primarily suggested that one must either study for their master's entrance or take up a job but never both because it can become tedious to manage. EXTC students were told to put in extra efforts in order to compete with Computer and IT students. He later discussed how on-campus placements have better monetary benefits as well as other facilities as compared to off-campus placements. Students who were planning to do master's later in life were encouraged to work in start-ups and small businesses.

A special guest Ms. Pooja Jha, an alumna of the college, currently working at Quantiphi, was invited to speak a few words about her placement experience. The four types of packages that were spoken about were Super dream, Dream, Normal and Mass Recruiter packages. She started off by emphasizing the importance of having a great personality in comparison to having a stellar academic record. It was discussed that more and more students today apply for non-technical jobs more than ever before and how students can prepare their non-technical profile by getting

certifications online about accounting, analysis etc. Non-tech placements offered are mainly divided into three major categories: Sales and Marketing, Consulting and Analytics. Students looking for non-tech jobs specifically were urged to look into creating financial research papers, patents and get used to "Guesstimates" - problems which include estimating the particular figure of objects by considering various factors and parameters for the given situation.

For building one's Résumé, both for technical and non-technical interviews, a few points were discussed. Volunteer work is applauded as it shows good character. One should never put his/her picture on their CV. If any individual is interested in going for both placements, then he/she must have two different résumés highlighting skills and experiences pertaining to the specific field of application. The importance of having a great LinkedIn profile and how it can be used as an excellent tool for job hunting was touched upon. Professor Sawant concluded the seminar on a positive note and kindly gave the students the presentation to go through at their comfort. The seminar was very informative and covered all aspects of the placement process thoroughly.

Outcomes:

- Students were provided with an in-depth insight into the placement process
- Students gained confidence regarding the common questions asked in aptitude tests

After discussing the nature of tech and non-tech profiles, students gained clarity about the career path they want to pursue

4.5 Workshop on MATLAB Software- IETE Fortnight

Expert: Dr. Sunil H. Karamchandani, Associate Professor andProf. V. Venkatramanan, Assistant Professor, EXTC Department.

Date: 2nd February 2020.

Number of participants: 25+

Year: F.E and S.E

Objectives of the activity:

- To teach the students the basics of MATLAB and how to formulate programs using the same
- To help students acquire knowledge beyond their syllabus
- To explain the advantages of MATLAB over other programming languages

Details:

The workshop conducted by Prof.Venkatramanan and Dr. Sunil H. Karamchandani was held on Sunday 2nd February 2020. They mainly focused on the basic applications of the MATLAB software. The workshop commenced with the basic understanding of MATLAB and an overview of what was to be covered in the workshop. Holding a MATLAB Workshop was necessary as it has an array of applications throughout the course. Prof.Venkatramanan enlightened them about the basic commands in MATLAB like *clc*, which is used to clear the screen and *spy*, a command which displays the wolf to name a few. These commands are some of the starting points in MATLAB. One can type their entire code in command window. Command history is inclusive in the default layout. It shows all past commands. One can copy past commands into command window. Double-click will execute the command. He then moved on to the MATLAB GUI. He explained path changing in MATLAB and how it is imperative to maintain proper case since MATLAB is case sensitive. It holds only the most recent result and a semi-colon at the end of the line will supress the output. The applications include script files and debugging.Workspace present on the right corner of the layout will display the variable and the answer entered in the command window.

This was then followed by solving standard matrix calculations like addition, multiplication and subtraction of matrices and how they could be executed on the software. Next, he moved on to the sorting of a matrix. The default system settings of the sort command and how to put into the system the sorting command of choice was shown. Students were also given a puzzle to solve in order to make the session very interactive and intriguing. Students Arman Lalani and DipeshDarda assisted Prof.Venkatramanan in conducting the workshop by teaching students about the Hardware Support Packages available in MATLAB and SIMULINK to program hardware devices. They demonstrated how to program Arduino and Raspberry Pi using the same. A simple blink LED model was made and deployed on Arduino Uno. They then explained the motion detection algorithm and explained the MATLAB code for the same. They also gave an overview of Raspberry Pi as a mini board computer, how it is useful and how to get started with it.

Post break, Dr. Karamchandani took over the seminar. He explained the usefulness of MATLAB in the field of telecommunication, signal processing as well as in plotting of graphs, drawing multiple functions in the same graph, setting colours and setting axis scales. He also taught how to plot bar graphs, draw contours, etc. The session was concluded by explaining the basics of SIMULINK. The seminar was very informative and was a great insight into MATLAB basics.

Outcomes:

- The students had mastered the syntax of MATLAB
- The students were able to code basic programs in MATLAB
- The students were motivated to attempt more complex programs using MATLAB after learning the basics
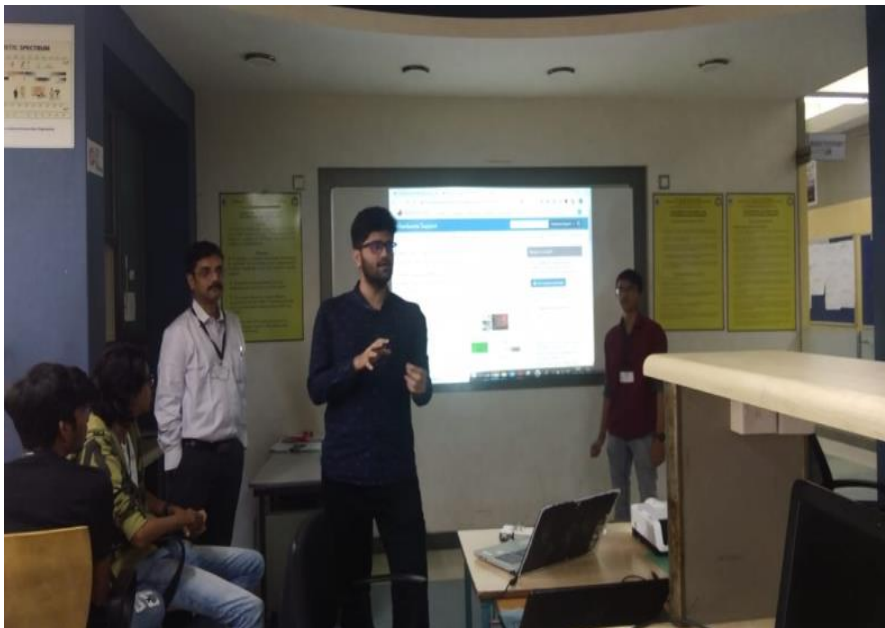
4.6 Workshop on Antenna Design using Computer Simulation Technology Software –IETE Fortnight

Experts: Dr. Amit A. Deshmukh, Head of EXTC Department, Prof.Anuja Odhekar,Branch Counsellor, Prof.Ameya Kadam, Assistant Professor, Prof.Venkata A.P Chavali, Assistant Professor, Prof. Poonam Kadam, Assistant Professor, Prof.Aarti C. Ambekar, Assistant Professor, Prof. Sanjay B. Deshmukh, Assistant Professor.

Date: 5th and 7th March, 2020

Number of students participated: 140

Year: T.E

Objectives of the activity:

- To help students identify different kinds of antenna structures
- To explain in detail the procedure involved in fabricating an antenna
- To familiarise students with the CST Software and design an antenna using it

Details:

The Antenna Design Workshop was held on Thursday, 5th March and Saturday, 7th March. The workshop was conducted specially in interest of Third Year students of EXTC as it illustrates some of the most important topics that fall under the scope of their compulsory course subject Antenna and Wave Propagation. It was primarily conducted by Prof.AnujaOdhekar, Branch Counsellor and Prof.Ameya Kadam; supervised by Dr. Amit A. Deshmukh, Head of Department EXTC and assisted by Prof.Venkata A. P. Chavali, Prof. Poonam Kadam and Prof. Sanjay B. Deshmukh. The students were first given a brief introduction about various kinds of antennae and the selection criteria of each. During the course of the workshop, students were also shown actual models of microstrip antennae to help them visualise the purpose of the same. Different kinds of applications were discussed and the requirements of each application were listed.

Next, the structure of the rectangular microstrip antenna (RMSA) was explained. The standard procedure for the design of an RMSA was revised and solved on paper. The students were then

introduced to the CST Studio Software. It is a software package that can simulate and solve various kinds of electromagnetic problems including particle physics, magnetostatics and many more. Students were instructed to open the Microwave & RF Domain tab. There they could choose any type of spatial structure. As the design of RMSA was being discussed, students proceeded with the planar structure option. The time domain option was selected for further operations and then a settings window opened wherein students could enter the fixed dimensions and the units for variables in use. Finally, the range of frequencies was defined and the fields to be displayed were chosen.

Once all the prerequisite data had been entered, the software created a basic 3D model of the antenna. Students were encouraged to observe the same analytically. They then proceeded to change the values and observe the changes visually, as reflected by the 3D model. The software has a library of different kinds of materials that can be used to design the antenna. Students experimented using various substrate options till they found the best match as per their requirements. PEC (Perfect Electric Conductor) and FR4 (Lossy) were the substrate materials that were used in the end.

Next, a patch was created using cylinders. The dimensions – inner and outer radii and the range of height – were set. The material was chosen and the result was previewed. Similarly, the feed was designed, added to the model and observed. The theory of different types of feed lines was also explained simultaneously. Inner and outer conductors may be made of different materials. The Teflon Conductor (PTFE) was also explained in detail. Once the design procedure was completed, the model was simulated. The results of the simulation were compared with the theoretical evaluation done on paper in the beginning of the workshop, which were found to be accurate to a few decimal points. The main advantage of implementing the CST Studio was highlighted. The calculations required at each step of designing are extremely time-consuming and complex when done manually. The workshop concluded with a discussion of other applications of the software. The students were also given a few problems to solve manually at their comfort and implement them later using the software.

Outcomes:

- Students could successfully understand the need for customising an antenna as per their intended application

- Students were familiarised with various options of design parameters practically

- Students got a better understanding of the subject which would help them in their examination
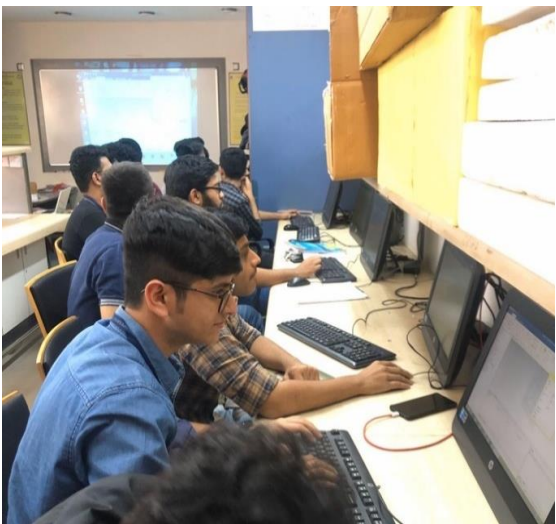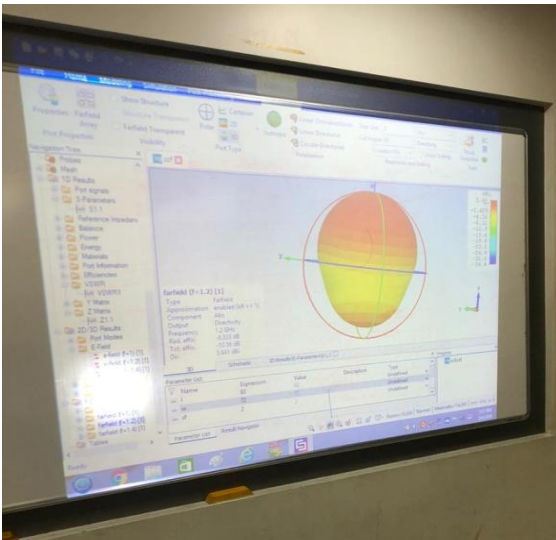
4.7 DJS ARYA

DJS Arya is the official cannister satellite team of Dwarkadas Jivanlal Sanghvi College of Engineering.Our team is a part of Electronics and Telecommunication department and is associated with the IETE-SF committee. We design small prototypes of satellites called a canister satellite. We participate in the international CanSat competition which is held in the United States of America every year. We represent our college and our nation at this international level competition with more than 400 teams participating in it. DJS Arya started off as a final year project of a group of engineering students and we went from there to participating and attaining success on an international level competition. After the success of this final year project, we participated in the competition for the first time in 2019 with only 10 students working on the canister satellite. Now, we are a team of over 20 members from different departments of the college coming together to learn and make something different and achieve greater heights.

Competition Details

The American Astronautical Society (AAS), National Aeronautics and Space Administration (NASA) and American Institute of Aeronautics and Astronautics (AIAA) organize an annual student design-build-launch competition for space-related topics. Similar competitions exist for other fields of engineering (robots, radio-control airplanes, racing cars, etc.) but most space-related competitions are paper design competitions which though worthwhile do not give students the satisfaction of being involved with the end-to-end life cycle of a complex engineering project, from conceptual design, through integration and test to actual operation of the system and concluding with a post-mission summary and debrief. This competition fulfils that need.

This annual competition is open to teams from universities and colleges. Teams must be able to design and build a space-type system, following the approved competition guide, and then compete against each other at the end of the two semesters to determine the winners. Rockets will be provided but teams are responsible for funding the construction of their CanSat and all travel/lodging expenses.

Faculty guides

1. Dr. Amit A. Deshmukh (HOD, EXTC department)

2. Prof. Tushar Sawant (Professor, EXTC department)

3. Prof. V. Venkataraman an(Professor, EXTC department)

4. Prof. Aarti Ambedkar (Professor, EXTC department)

Core Team Members

Sr. No.	Team Designation	Core Member Name	Past designations
1.	Team Captain	Vedant Awasthi	Vice Captain of DJS Skylark, the official Aero team of the college
2.	Team Manager	Niti Doshi	Vice Captain of DJS Kronos, the official All-Terrain-Vehicle team of the college
3.	Technical Head	Dishant Shah	College Tech Sec for 2019, Co-Chairperson for DJSCE IETE-SF committee, Team leader of one of the winning teams in SIH 2019.

Team History/Past Achievements

Results of CanSat competition 2018-19

This team, though relatively new has already started creating ripples across the state. What began as a mere final year project of a few BE students is now a worldwide phenomenon within its second year itself of reinstation as an official college team. The team's growth has been exceptional and it achieved 24th rank in PDR and 34th rank overall (Worldwide) in 2018-19, which marked its first year as an official college team. It was also one of the six teams that represented India on an International platform in this competition, and one of the only few teams whose payload was deployed as expected and autogyro functioned as per mission requirements.

CanSat 2020 PDR round results

DJS Arya has participated in the 2019-20 CanSat competition which will be held in the Virginia University, United States of America. On 1st February 2020, we completed the first important step towards moving ahead in the competition which was the submission of the PDR document. After waiting patiently, we reaped the rewards of our hard work as we got selected for the next round held in the United States of America. DJS Arya stood 13th all over the world in the PDR round of the Cansat competition 2020, out of more than 400+ teams participating, leaving behind our last year's score and improving our rank considerably.

CanSat 2020 CDR round results

The next stage of the competition is the CDR. Due to the ongoing COVID-19 pandemic and the state of lockdown, our resources were limited. But we continued to work from home and put in our best efforts into making our CDR. It paid off when we secured the 2nd rank all over the world, and the 1st rank in India, in the CDR round.

CanSat 2020 Overall results

The COVID-19 pandemic resulted in the cancellation of the final launch phase. Hence, the results were evaluated on the basis of the previous rounds. Although our work conditions were restricted, we managed to work together and got into the top 10 teams worldwide. We bagged the 9th position overall which was a huge jump from our previous year's ranking.

Department of Electronics & Telecommunication Engineering   Academic Year 2019-20

4.8 DJS Antariksh:

DJS Antariksh is the official Rover Challenge team of Dwarkadas J. Sanghvi College of Engineering. The Team aims to participate in namely two major challenges, European Rover Challenge and Indian Rover Challenge. The year 2019-2020 is the foundation year for the team. The team not only comprises of students from EXTC department but also from other departments of the college. The team aims to participate in all the rover challenge competitions.

- **Motto:**

  To Decipher Unimaginable: The motto clearly highlights the Team's perspective to build next generation Martial Rover and decipher many Martian secrets.

- **Vision:**

  To design an exceptional rover that is highly efficient and multifunctional by mastering science and technology with significant progress

- **Mission:**

  To deliver outstanding performance in the field of space exploration and sustain an enriching environment through diversity and teamwork.

  Work Strategy :
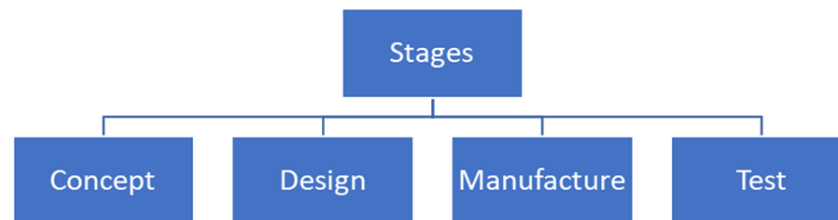
Faculty guides:

1. Dr. Amit A. Deshmukh (HOD, EXTC department)
2. Prof. Tushar Sawant (Assistant Professor, EXTC department)
3. Prof. V. Venkataramanan (Assistant Professor, EXTC department)
4. Prof.Yukti Bandi (Assistant Professor, EXTC department)

Core Team Members:

Sr. No.	Team Designation	Core Member Name	Past designations
1.	Team Captain	Rohit Kalkundre	2 Years of Experience in Electronics Department in DJS Kronos
2.	Team Manager	Omkar Malwade	2 Years of Experiencein Electronics Department in DJS Kronos
3.	Vice-Captain Integration Head	Vivekanand Sahu	2+ Years of Experience in Electronics Department in DJS Racing
4	Vice-Captain Integration Head	Siddhant Salvi	2 Years of Experience in Electronics Department and Core team member in DJS Kronos
5	Coding Head	Nishi Modi	Worked on Various ML Projects, ML/ Intern
6	Mechanical Head	Neel Busa	Vice-Captain of DJS Kronos, 2 Years' Experience in Team
7	Mechanical Head	Priyam Shah	2 Years of Experience in Mechanical Department as Fabrication Head in DJS Kronos
8	Marketing Head	Shyamal Oza	Treasurer of DJSCE IETE-SF Committee, Business Analyst Intern

Future Prospects

We further aim to participate in various similar rover challenges like IRC and URC. DJS Antariksh has laid the foundation stone for developing a Technology Driven Rover that would contribute to space exploration and surely would bring laurels to college

5. ACHIEVEMENTS

5.1 Faculty Publications- Conferences / Journals

Sr No.	Name of the Faculty	Title
1.	Dr. Amit Deshmukh	1. Amit Deshmukh, Sanjay Deshmukh "Proximity Fed Rectangular Microstrip Antenna Using Parasitic Semi-Circular Shaped Patches", CSCITA 2020, organised by SFIT on 3-4 April 2020, IEEE publication
		2. Wideband Designs of Sectoral Microstrip Antennas Using Parasitic Arc Shape Patches Progress In Electromagnetics Research C,Jan 2020.
		3. Modified Ground Plane Multi-Band Rectangular Microstrip Antennas with Reduced Cross Polar Radiation, PIER-C, Jan 2020
		4. Compact Wideband Microstrip Antenna With Modified Ground Plane, IJMOT, May 2020
		5. Gap-coupled Designs of Star shape Microstrip Antennas For Dual band and Wide band Circular Polarized Response,
		6. Modified Rectanglar Microstrip Antenna for wideband response with conical radiation pattern, CSCITA 2020, organised by SFIT on 3-4 April 2020, IEEE publication
		7. Analysis of Wang shaped Broadband Microstrip antenna, ICAST-2020, organised by K J Somaiya Institute of Engineering and Information Technology on 28 th May 2020, SSRN, Elsevier publication
		8. Slot Loaded Triple Band Microstrip Antenna for GSM Applications, CSCITA 2020, organised by SFIT on 3-4 April 2020, IEEE publication

		9. Om shape Microstrip Antenna for Dual Polarized Wideband and Multiband Response, ICAST-2020, organised by K J Somaiya Institute of Engineering and Information Technology on 28 th May 2020, SSRN, Elsevier publication
2.	Prof. V V kelkar	1. DCT Based Reversible Watermarking Technique For Medical Images With Improved Quality Of Watermarked Image" , ICRTECC-20 e-conference June 2020, Chennai
3.	Dr. Sunil Karamchandani	1. Face Sketch-Image Recognition for Criminal Detection using a GAN Architecture" in Springer Fourth International Conference on ICT for Intelligent System, Ahmedabad, May 2020.
		2. Holistic Siamese Model Optimized for Aged Face-Sketch Similarity Detection" in 3rd IEEE International Conference On Computing, Power and Communication Technologies, Gucon,2020.
4	Prof Sanjay Deshmukh	1. Amit Deshmukh, Sanjay Deshmukh "Proximity Fed Rectangular Microstrip Antenna Using Parasitic Semi-Circular Shaped Patches", CSCITA 2020, organised by SFIT on 3-4 April 2020, IEEE publication
		2. Wideband Designs of Sectoral Microstrip Antennas Using Parasitic Arc Shape Patches Progress In Electromagnetics Research C, Jan 2020.
5.	Prof. Poonam Kadam	1. Modified Ground Plane Multi-Band Rectangular Microstrip Antennas with Reduced Cross Polar Radiation, PIER-C, Jan 2020
		2. Compact Wideband Microstrip Antenna With Modified Ground Plane, IJMOT, May 2020

6.	Prof. Anuja Odhekar	1. Gap-coupled Designs of Star shape Microstrip Antennas For Dual band and Wide band Circular Polarized Response,
10.	Prof. Venkata APC	1. Modified Rectanglar Microstrip Antenna for wideband response with conical radiation pattern, CSCITA 2020, organised by SFIT on 3-4 April 2020, IEEE publication.
		2. Analysis of Wang shaped Broadband Microstrip antenna, ICAST-2020, organised by K J Somaiya Institute of Engineering and Information Technology on 28 th May 2020, SSRN, Elsevier publication.
12.	Prof. Aarti G. Ambekar	1. Slot Loaded Triple Band Microstrip Antenna for GSM Applications, CSCITA 2020, organised by SFIT on 3-4 April 2020, IEEE publication
		2. Om shape Microstrip Antenna for Dual Polarized Wideband and Multiband Response, ICAST-2020, organised by K J Somaiya Institute of Engineering and Information Technology on 28 th May 2020, SSRN, Elsevier publication

5.2 FDP Attended by Faculty Members

Sr No.	Name of the Faculty	Title
1	Prof. Tanaji Biradar	1. FDP on PYTHON from 03/05/2020 to 07/05/2020 by Spoken Tutorial IITB
		2. One Week FDP on "OUTCOME BASED EDUCATION: A STEP TOWORDS EXCELLENCE,11-15 MAY 2020 Under MargdarshanSchme of AICTE,New Delhi
2	Prof. Vishakha Kelkar	1. FDP on Campuswide MATLAB Tools from 23/04/2020 to 24/04/2020 from Cummins COE,Nagpur
		2. Certificate of completion of PYTHON 3.4.3 training and test on 09/05/2020 ,IIT Bombay
3	Dr. Sunil Karamchandani	1. FDP on SCILAB from 26/05/2020 to 30/05/2020 by Spoken Tutorial IITB
4	Prof. Sanjay Deshmukh	1. FDP on SCILAB from 26/05/2020 to 30/05/2020 by Spoken Tutorial IITB
5	Prof. Poonam Kadam	1. FDP on SCILAB from 26/05/2020 to 30/05/2020 by Spoken Tutorial IITB
		2. FDP on 'Improving Teaching Learning Experience using Best Practices' from 15/06/2020 to 19/06/2020
6	Prof. Anuja Odhekar	1. FDP on SCILAB frm 26-05-2020 to 30-05-2020 by Spoken Tutorial
7	Prof. Rahul Taware	1. FDP on "Opportunities & Challenges in Electronics and allied Industries in India, 25th To 30th May 2020, VESIT, Chembur.
		2. FDP on Advances in Internet of things, 29th May to 2nd June 2020, FCRCE, Bandra.
		3. FDP on SciLab, 26th to 30th May 2020, DJSCE
		4. FDP on PLC & SCADA traing, 1st to 12 June 2020, VCET, Vasai.

		5. FDP on Recent trend in power system, 22nd to 26 th June 2020, sharad Institute of technology & college of engineering, Ichalkaranji.
		6. FDP on security issues & role of cryptography in communication, 22nd to 26th June 2020, SNDT, Mumbai.
		7. FDP on Real Time Hardware-in-the-Loop (HIL) Simulation for Power Electronics & Power Systems Confirmation, 28th to 30th June 2020, SGSITS Indore
8	Prof. Shivani Bhattacharjee	1. FDP on PHYTON from 03/05/2020 to 07/05/2020 by spoken tutorial IIT B
		2. FDP on SCILAB from 26/05/2020 to 30/05/2020 by spoken tutorial IIT B
		3. FDP on Sensor, IOT and Machine learning from 1/6/2020 to 05/06/2020 by KJSCE,Vidyavihar
		4. FDP on Advance Technologies in IT from 09/05/2020 to 12/05/2020 by VIT,Mumbai
		5. FDP on Campuswide MATLAB Tools from 23/04/2020 to 24/04/2020 from Cummins COE,Nagpur
		6. FDP on improving teaching learning experience using bestpractice from 15th-19th june 2020 organized by IT dept, DJSCE
9	Prof. Ameya Kadam	1. FDP on PYTHON from 03/05/2020 to 07/05/2020 by Spoken Tutorial IITB
		2. FDP on SCILAB from 26/05/2020 to 30/05/2020 by Spoken Tutorial IITB
10	Prof. Ranjushree Pal	1. FDP on PYTHON from 03/05/2020 to 07/05/2020 by Spoken Tutorial IITB
		2. FDP on SCILAB from 26/05/2020 to 30/05/2020 by Spoken Tutorial IITB

		3. FDP on Campuswide MATLAB Tools from 23/04/2020 to 24/04/2020 from Cummins COE,Nagpur
11	Prof. Venkata APC	1. FDP on SCI LAB from 26th MAY t0 30th MAY by Spoken Tutorial, IIT BOMBAY
		2. FDP on Technology for health care from 8th June to 10 June by GMRIT
		3. FDP on Electronic System Design, modeling and simulation from 8th June to 10 June 2020 by PHCET, Rasayani
		4. FDP on improving teaching learning experience using bestpractice from 15th-19th june 2020 organized by IT dept, DJSCE
12	Prof. Mrunalini Pimpale	1. FDP on python from 03/05/2020 by spoken tutorial IITB.
		2. FDP on data science from 26 May to 30 May 2020
		3. FDP on machine learning and deep learning application in engineering and science.
		4. FDP on Electronic System Design, modeling and simulation from 8th June to 10 June 2020 by PHCET, Rasayani
13	Prof. Archana Chaudhari	1. FDP on SCILAB from 26/05/2020 to 30/05/2020 by Spoken Tutorial IITB organised by DJSCE
		2. FDP on python from 15/06/2020 to 19/06/2020 by spoken tutorial IITB organized by Thakur College of Engineering
14	Prof. Aarti Ambekar	1. FDP on SCI LAB from 26th MAY t0 30th MAY by Spoken Tutorial, IIT BOMBAY
		2. FDP on Technology for health care from 8th June to 10 June by GMRIT

		3. FDP on Electronic System Design, modeling and simulation from 8th June to 10 June 2020 by PHCET, Rasayani
		4. FDP on improving teaching learning experience using bestpractice from 15th-19th june 2020 organized by IT dept, DJSCE
15	Prof. Yukti Bandi	1. FDP on Data Science from 26th-30th May 2020
		2. FDP on Electronic System Design, modeling and simulation from 8th June to 10 June 2020 by PHCET, Rasayani
		3. Certificate of completion of PYTHON 3.4.3 training and test on 09/05/2020 ,IIT Bombay
16	Prof. Revathi A. S.	1. FDP on Data Science from 26th-30th May 2020
		2. Certificate of completion of R programming and test on 08/05/2020 ,IIT Bombay
17	Prof. Tushar Sawant	1. FDP on SCILAB from 26/05/2020 to 30/05/2020 by Spoken Tutorial IITB

5.3 STTP Attended by Faculty Members

Sr. No.	Name of the Faculty	Title
1	Prof. Tanaji Biradar	1. Recent Trends and Applications of Machine Learning and Deep Learnig in IT, organized By IT deprtment, RAIT , Navi Mumbai, 25-29 May 2020
2	Prof. Vishakha Kelkar	1. ADSP-Road map to Machine Learning 7th -11th Jan at DJSCE
3	Dr. Sunil Karamchandani	1. Recent Trends and Applications of Machine Learning and Deep Learnig in IT, organized By IT deprtment, RAIT , Navi Mumbai, 25-29 May 2020
4	Prof. Poonam Kadam	1. ADSP-Road map to Machine Learning 7th -11th Jan at DJSCE
5	Prof. Anuja Odhekar	1. ADSP-Road map to Machine Learning 7th -11th Jan at DJSCE
6	Prof. Rahul Taware	1. STTP on "Sensor, IoT & Machine Learning" from 1st June 2020 to 5th June 2020 conducted by, K. J. Somaiya College of Engineering, Vidyavihar, Mumbai
7	Prof. Shivani Bhattacharjee	1. ADSP-Road map to Machine Learning 7th -11th Jan at DJSCE
8	Prof. Ameya Kadam	1. ADSP-Road map to Machine Learning 7th -11th Jan at DJSCE
9	Prof. Ranjushree Pal	1. ADSP-Road map to Machine Learning 7th -11th Jan at DJSCE
10	Prof. Venkata APC	1. STTP on Sensor, IOT & Machine Learning 1st June to 5th June at KJSCE
11	Prof. Archana Chaudhari	1. STTP on "Sensor, IoT & Machine Learning" from 1st June 2020 to 5th June 2020 conducted by, K. J. Somaiya College of Engineering, Vidyavihar, Mumbai

		2. AICTE-ISTE approved online STTP on "Outcome Based Education (OBE) & NBA" from 29th June to 3rd July 2020, organized by Shree L. R. Tiwari College of Engineering
12	Prof. Yukti Bandi	1. ADSP-Road map to Machine Learning 7th -11th Jan at DJSCE
13	Prof. Revathi A. S.	1. ADSP-Road map to Machine Learning 7th -11th Jan at DJSCE

5.4 Webinars Attended by Faculty Members

Sr. No.	Name of the Faculty	Title
1	Dr. Amit Deshmukh	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE.
2	Prof. Tanaji Biradar	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE.
		2. National Webinar on "Cyber Crime during Corona virus era: its prevention and protection" Organized by Mithibai College, 7th May 2020.
		3. One Day National webinar on " Data Science and Application, by Government College of Engineering Aurangabad and Karad ,on23rd May 2020
		4. One Week Webinar series on " Technical Advancement In Field of Electronics and Telecommunication Engineering, organized by VCET , Vasai, from 5-9 May 2020
3	Prof. Vishakha Kelkar	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
4	Dr. Sunil Karamchandani	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
5	Prof. Sanjay Deshmukh	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
6	Prof. Poonam Kadam	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
7	Prof. Anuja Odhekar	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
8	Prof. Rahul Taware	1. Webinar series on Recent trend in microwave engineering & IoT, 6th & 7th June 2020, DJSCE,
		2. National webinar on Data science, Artificial Intelligence & Robotics, 2nd June, NMCCE

		3. Webinar on Vogue of Embedded System, 27th May to 29th May 2020, VCET, Vasai.
		4. Webinar on "building electrical design and drafting", 27th May 2020, organized by Amruthvani College of Engineering, Ahmednagar.
		5. Webinar on Intellectual Property Rights, 25th May 2020, organized by shri chhatrapati shivajiraje college of engineering, pune.
		6. Webinar on startup life cycle & patent Registration, 25th & 26th May 2020, organized by Atharv College of Engineering
		7. Webinar series on technology advancement in the field of electronics and telecommunications Organized by VCET, Vasai.
		8. Webinar on 5G communication of next generation, 14th May 2020, organized by VIT, Mumbai.
9	Prof. Shivani Bhattacharjee	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
10	Prof. Ameya Kadam	1. Two Days Webinar on 3D EM Simulation Involving CST Software", Organized by Department of Electronics and Communication Engineering, Sri Venkateswara College of Engineering, Sriperumbudur on 18.05.2020 and 19.05.2020.
		2. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
11	Prof. Ranjushree Pal	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
12	Prof. Venkata APC	1. Math works webinar on Industrial trends in Machine Learning using MATLAB on 3rd June 2020 by PCCOE

Page 38

		2.	Recent Trends in Microwave Engineering and Internet of Things on 6th and 7th June 2020 by DJSCE
		3.	"Art and Callenges of writing Papers for IEEE Transactions" as a part of IEEEBangalore Webinae Learning series organised by IEEE Bangalore section on June 8th 2020
		4.	Webinar on "Libraries and Tools for Machine Learning" held on 18th June 2020 from 05:00 pm to 06:00 pm by Mr. Santosh Chapaneri, Assistant Professor, Dept. of EXTC, SFIT.
		5.	Webinar on Language Acquisition with AI agents in immersive environments organised by DBIT hel on 18.6.2020
		6.	Webinar on nano satellite launching organised by GMRIT, Rajam, AP on 18.6.2020
13	Prof. Archana Chaudhari	1.	Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
		2.	Webinar Series "Beyond the Bondaries-Reinventing Horizon " Attended four sessions 1. Fly High Innovatin and startups on 18th May 2. Power of collabration: Research, Technology and Business on 19th May 3. Back to basics -Helth, Happiness and Peace on 20th May 4. New normal in Education on 30th May 2020 organized by SKIT Management and Gramothan, Jaipur
		3.	Webinar series on Technological advancement in the field of Electronics and Telecommunication Engineering organized by Vidhyavardhini's College of Engineering and Technology

		4. Webinar on " Digital Transformation" organized by Department of Electrical Engineering and Electronics & Communication Engineering PIET Jaipur, on May 29th,2020
		5. IEEE Bombay sections webinar on "Conference Leadership Program II " organazed by Vidhyalankar Institute of Technology on 24th March 2020
		6. Webinar organized by IEEE STANDARDS ASSOCIATION & MHRD PMMMNMTT FDC, Shivaji University, Kolhapur on "IEEE 802.11 and Building Wireless Community Networks", held on 22nd May 2020.
		7. Industry Scenario after COVID-19 on 20th and 21st May 2020 organized by GCOERC Nashik
		8. Webinar on Teachers are Leaders on 23rd May 2020 organized by IQAC, BVCOE
		9. Webinar on Advanced Power Electronics Converters for Renewable Energy Systems on 26th June 2020 organised by Tagore Engineering College
14	Prof. Aarti Ambekar	1. Math works webinar on Industrial trends in Machine Learning using MATLAB on 3rd June 2020 by PCCOE
		2. Recenct Trends in Microwave Engineering and Internet of Things on 6th and 7th June 2020 by DJSCE
		3. Art and Callenges of writing Papers for IEEE Transactions" as a part of IEEEBangalore Webinae Learning series organised by IEEE Bangalore section on June 8th 2020
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		to 06:00 pm by Mr. Santosh Chapaneri, Assistant Professor, Dept. of EXTC, SFIT.
		5. Webinar on Language Acquisition with AI agents in immersive environments organised by DBIT hel dated 18.6.2020
		6. Webinar on nano satellite launching organised by GMRIT, Rajam, AP dated 18.6.2020
		7. Webinar on 'cyber security' organized by FAMT,ENTC department, Ratnagiri dated 20th June 2020
15	Prof. Yukti Bandi	1. "Covid-19",Consideration for Vaccine on 12th May 2020
		2. Machine Learning and Artificial Intelligence from 23rd May, 2020 to 27th May, 2020 by SPIT, Mumbai
		3. Recent Trends in Microwave Engineering and Internet of Things on 6th and 7th June 2020 by DJSCE
16	Prof. Revathi A. S.	1. "Four day webinar series on machine learning and artificial intelligence " organised by SPIT from 23/5/2020to 26/5/2020
		2. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE
		3. National Webinar on "Data Science, Artificial Intelligence and Robotics : Future and Prospects" organized by IQAC and Department of BSC IT of Narsee Monjee College of Commerce & Economics on Tuesday, June 02, 2020.
17	Prof. Tushar Sawant	1. Recent Trends in Microwave Engineering and IoT on 6th and 7th June 2020 by DJSCE

5.5 Coursera Courses Taken by Faculty Members

Sr No.	Name of the Faculty	Course Name
1.	Prof. Vishakha kelkar	1. 11 weeks course on MAchine Learing ;Stanford Univeristy ; Completed on June 6, 2020..
2.	Prof. Ameya Kadam	1. 7 week course on Linear Circuits 1: DC Analysis by Georgia Institute of Technology from 24th May-15th June 2015 Completed on June 1, 2020.
		2. 5 week course on Linear Circuits 2: AC Analysis by Georgia Institute of Technology from 24th May-15th June 2015 Completed on May 29, 2020.
		3. 5 week course on Mathematics for Machine Learning: Linear Algebra by Imperial College London from 24th May-15th June 2015 Completed on May 25, 2020.
		4. 3 week course on Fibonacci Numbers and the Golden Ratio by The Hong Kong University of Science and Technology from 24th May-15th June 2015 Completed on June 4, 2020.
		5. 5 week course on Matrix Methods by University of Minnesota from 24th May-15th June 2015 Completed on June 2, 2020.
		6. 4 week course on Basic Data Descriptors, Statistical Distributions, and Application to Business Decisions by Rice University from 24th May-15th June 2015 Completed on June 4, 2020.
		7. 4 week course on Matrix Algebra for Engineers by The Hong Kong University of Science and Technology from 24th May-15th June 2015 Completed on June 1, 2020.

3.	Prof. Ranjushree Pal	1. Advanced Machine Learning and Signal Procesing ,IBM Coursera from15/05/2020 to 22/06/2020(4 weeks)(completed early on 01/06/2020)
		2. Natural Language Processing with Tensorflow from deeplearning.ai, Coursera from16/05/2020 to 23/06/2020(4 weeks)(completed early on 04/06/2020)
		3. A.I. for everyone from deeplearning.ai, Coursera from 05/06/2020 to 05/07/2020(4 weeks)(completed early on 07/06/2020)
		4. Neural Network and Deep Learning from deeplearning.ai, Coursera from 07/06/20 to 07/07/20(4 weeks)(completed early on 14/06/20)
		5. Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization from deeplearning.ai,Coursera from 15/06/20 to 07/07/20(3 weeks)completed early on 22/06/20
		6. Programming for Everybody (Getting Started with Python),University of Michigan, Coursera from 23/06/20 to 18/08/20(7 weeks) completed on 24/06/20
4.	Prof. Yukti Bandi	1. 6 week course on Python data structure by University of Michigan Completed on June 12, 2020.
		2. "6 week course on "Programming for Everybody (Getting Started with Python) by University of Michigan Completed on June 6, 2020.

5.6 Faculty Award

Sr. No.	Name of Faculty	Description
1	Dr. Amit A. Deshmukh, Prof. Venkata A. P. Chavali and Prof. Arati Ambekar	Received Best Paper Award for their paper "Modified Rectangular Microstrip Antenna for Wideband Response with Conical Radiation Pattern", which was presented by Prof. Venkata A. P. Chavali at the 3rd International Conference on Communication System, Computing & IT Applications organized by St. Francis Institute of Technology, Borivali on 3rd and 4th April 2020
2	Prof. Vishakha Kelkar	Certificate of Appreciation for her role as SPOC for the SWAYAM-NPTEL Local Chapter

5.7 Interaction of faculty with outside world

Sr. No.	Name of Faculty	Description
1.	Dr. Amit Deshmukh	As examiner for PhD annual progress seminar evaluation at MPSTME, Mumbai on 30th May 2020
		M. Tech. Thesis Examiner at DIAT Pune in May 2020 exam on 29th May 2020

5.8 Students Internship

Sr No	SAP ID	Year /Div	Name of Student	Industry	Area	Date And Duration	Expert /Guide-*From Industry*
1	60002160014	BE-1	Maitriya Damani	Automation & Control Systems, Pune	Automation	10th June to 12th July 2019	Mr. Saurabh Ahelleya
2	60002160013	BE-1	Viren Contractor	IT consultancy	Web development	10th june to 13th August 2019	Mr. Maulik Bengali
3	60002160052	BE-1	Atulya Kumar	Banking and Finance	IT, Finance Technology	19th July to 19th August 2019	Mr Kosuru Ayyappa
4	60002160007	BE-1	Akshay Bhogan	IT Consultancy and Services	Machine learning, Software Development	17th December 2019 to 7th February 2020	Mr. Maulik Bengali
5	60002160050	BE-1	Sanjeet Krishna	Fintech	Machine Learning, Image Processing, Automation,	15th June 2018 to 5th September 2018, 18th June 2019 to 15th August 2019, 16th December 2019 to 31st January 2020	Mr Govind Dalwani

6	60002160005	BE-1	Viren Baria	IT Consultancy and Services	Computer Vision, Machine Learning	17th December to 7th February	Mr. Maulik Bengali
7	60002160012	BE-1	Parth Chudasama	IT Consultancy & Services	Python & Web development	10th june to 13th August 2019	Mr Maulik Bengali
8	60002160062	BE-1	Hetvi Mehta	Edu-Tech	Product & Business Development, Content Creator	9th Dec,2019 - Ongoing	Mr. Mikin Lala
9	60002160017	BE-1	Bhargav Desai	Automation & Control Systems, Pune	Automation	10th June to 12th July 2019	Mr. Saurabh Ahelleya
10	60002160106	BE-2	Muddassir Shaikh	Healthcare Services	Data Analysis	17 June to 16 August 2019	Mr. Tushar Cherekar
11	60002160110	BE-2	Abhishek Shinde	Electronics Engineering Works	Research and development	14 December to 15 January 2019	
12	60002170107	TE/2	Shyamal Oza	IT Solutions	Business Analyst	02-12-2019 (1 month)	
13	60002170091	TE2	Ritika Mondal	IT	Product Development	02-12-2019 (1 month)	
14	60002170094	TE/2	RuchiUpadhyay	IT	Web Development	02-12-2019 (1 month)	

15	60002170023	TE1	Chaitanya Sharma	IT	App Development	16-12-2019(6 months)
16	60002170069	TE/2	Nishi Modi	IT	Computer Vision	01-06-2019(2 months)
17	60002170101	TE/2	Sankalp Sharma	IT	Cloud computing	16-12-2019(1 month)
18	60002170097	TE/2	Rutu Waghela	IT	Web Development	28-8-2019(6 months)
19	60002170087	TE/2	Rani Saklecha	Pharmaceutical	Marketing and Research	01-01-2020(2 months)
20	60002170074	TE 2	Paras Patel	IT	Data Analyst	01-11-2019(1 month)
21	60002170070	TE2	Niyati Shah	Art & Crafts	Marketing	02-04-2020(1 month)
22	60002170096	TE/2	Rushabh Shroff	IT	Full Stack Developer	01-06-2019(3 months)
23	60002170117	TE/2	Vatsal Gupta	Entrepreneurship	Data Analyst	10-04-2019(2 months)
24	60002170117	TE/2	Vatsal Gupta	Entrepreneurship	Business Development	25-11-2019(1 months)
25	60002188024	TE/2	Kushal Thakkar	Entrepreneurship	Python	30-11-2019(1 week)

26	60002170062	TE/1	Mansi Parekh	Collegepond	Digital Marketing	01-06-2019(6 months)	
27	60002170108	TE/2	Siddhant Salvi	IoT	Product development	30-03-2020 (2 months)	
28	60002170086	TE/2	Rajit Subin	IT	Data science	17-06-2019(1 month)	
29	60002170089	TE/2	Rishabh Mansukhani	Finance	Sales and marketing	03-06-2019(1 month)	
30	60002170089	TE/2	Rishabh Mansukhani	IT Distributor	Marketing	09-12-2019(1 month)	

5.9 Courses Taken by Students

Sr. No.	courses	Class	Courses register	Courses completed	Received certificate
1	NPTEL	ALL	104	---	---
2	Coursera	SE	167	167	39
		TE	33	33	11
		BE	76	76	17

5.10 Student Award

Bhargav Desai

Bhargav, final year student of EXTC department won a very Prestigious Award "Aegis Graham Bell Award for National Talent Hunt in Artificial Intelligence & Data Science"

The Award was handed over to him at New Delhi Municipal Council (NDMC) Convention Centre on 27th February 2020 by Honorable Minister for Road Transport & Highways of India, Shri Nitin Gadkari.

Additionally, awarded a 100% scholarship for a PGDM programme worth 7 Lakhs at the Aegis School for Data Science
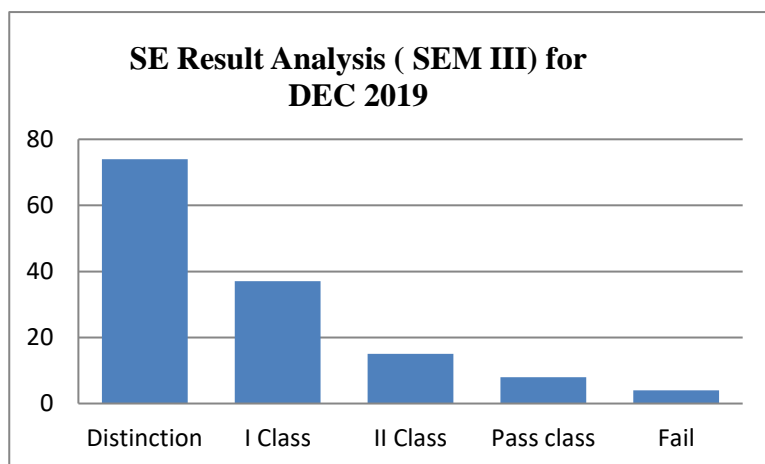
6. Result Analysis

Class: - SE

No. of students: 138

	Distinction	First class	Second class	Pass class	Fail
SE Result Analysis (SEM III) MDEC 2019	74	37	15	8	4

Subject	Appeared	Pass	Fail
Applied Mathematics III	138	137	1
Electronic Devices and Circuit	138	131	7
Digital System Design	138	133	5
Circuit Theory and Network	138	129	9
Electronic Instruments and Control	138	136	2

SE Result Analysis (SEM III) for DEC 2019

Name	Rank	CGPA
Kirkire Saniya, Paresh Vandana	First	9.84
Shah Vatshal, Uday Bhavesha	Second	9.77
Kamat Aditya, Sandeep Mamata	Third	9.69

Class: TE

Total No. of students = 149

	Distinction	First class	Second class	Pass class	Fail
TE Result Analysis (SEM V)-DEC 2019	81	46	14	2	6

Subject	Appeared	Pass	Fail
Microprocessor and Peripherals Interfacing	149	145	4
Digital Communication	149	146	3
Electromagnetic Engineering	149	145	4
Discrete Time Signal Processing	149	144	5
Data Compression and Encryption	149	140	9

TE Result Analysis (SEM V) for DEC 2019
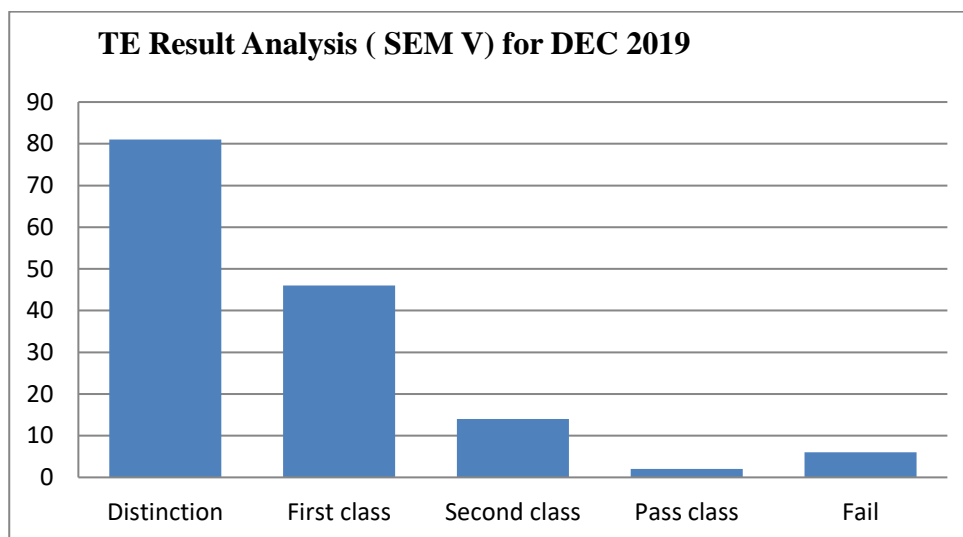
Name	Rank	CGPA
Modi Nishi, Amish Alpa	First	9.95
Roy Sayantan, Subrata Debjani	Second	9.88
Salvi Siddhant, Shekhar Priyanka	Third	9.85

Class: BE

Total No. of students = 146

	Distinction	First class	Second class	Pass class	Fail
BE Result Analysis (SEM VII)-DEC 2019	78	45	17	1	5

Subject	Appeared	Pass	Fail
Image and Video Processing	146	143	3
Mobile Communication System	146	144	2
Optical Communication	146	143	3
Microwave Engineering	146	142	4
Neural Network and Fuzzy Logic	109	108	1
Embedded Systems	25	24	1
Big Data Analytics	12	11	1
Cyber Security & Laws	10	10	0
Management Information System	77	75	2
Operation Research	59	57	2

BE Result Analysis for (SEM-VII) DEC-2019
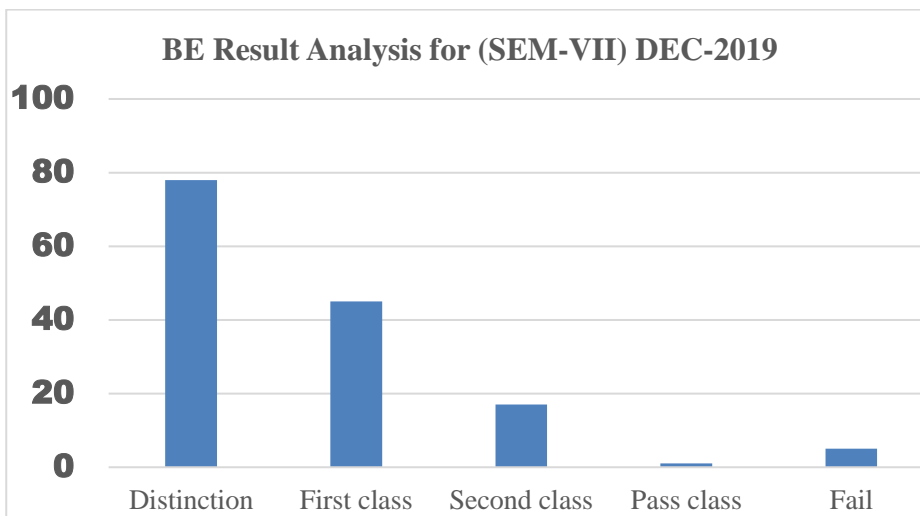
Name	Rank	GPA
Dalmet Wallace	First	9.48
Pratik Sankhe	Second	9.46
Rumi Desai	Third	9.41

7. Placement Data

Total no. of Students placed Company wise = 114

Sr. No.	Company Name	No. of Students Placed	Salary Per Annum(LPA)
1.	ZS	4	8.9
2.	GEP	4	8
3.	TCS digital hiring	1	7.5
4.	Edelweiss	4	7
5.	Cactus	1	7
6.	Quantiphi	5	6.5
7.	Think Analytics	2	6.5
8.	OFSS	3	5.8
9.	LTI	11	5
10.	Amdocs	1	5
11	Codalyeztech	1	5
12.	Media.net	1	4.5
13	ENY	7	4.25
14.	Deloite	3	4.12
15.	Lido	2	3.6
16.	TCS Ninja	12	3.5
17.	Reliance Jio	6	3.5
18.	Infosys	28	3.15
19.	Avalon Global Research	1	3.0
20.	ABM Knowledge	2	3.0
21.	ICICI Prudential	1	2.65
22.	Square Yard	12	2.25
Minimum CTC in LPA: 2.25 LPA		**Maximum CTC in LPA : 8.9 LPA**	