

# BOOTSTRAP

2019-20

#### THE NEWSLETTER OF COMPUTER ENGINEERING DEPARTMENT

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**EDITOR:** Publication Team, Computer Engineering Department

The computer engineering department was established in 2009. The department offers regular undergraduate program in "Computer Engineering" having intake of 60.

Our vision is to develop competent citizens who will be valuable contributors in the field of technology and science. And, our mission is to create an environment which will stimulate research, creativity and innovation and to provide students with comprehensive knowledge of the latest developments in Computer Engineering.

The department has young dynamic, qualified teaching and non-teaching faculties with well-equipped laboratories. The teaching faculties are actively involved and also encourage students in research and publishing papers in reputed journals and conferences. The faculty and students have presented and published research papers in reputed conferences and journals like IEEE, IJCA, IJOER, NCRENB, etc.

The department has taken conscious efforts to keep the faculty and students up to date with the change in the technologies and tools. The faculty members and the students are involved in the

organisation of guest lectures, seminars, workshops, conferences, etc. the CSI-VIVA TECH provides a great platform for the students to showcase their knowledge. For this technical events have been undertaken by the department on constant basis.

#### **VISION**

VIVA Institute of Technology strives to impart total quality education by means of equip students with knowledge and skills in their chosen stream, inculcate cultural and ethical values, identify hidden talents, provide opportunities for students to realize their full potential and thus shape them into future leaders, entrepreneurs and above all good human beings.

#### **MISSION**

To develop the standard of the institute above bench mark level, providing students with advanced knowledge and latest technology in the chosen discipline by tapping their hidden and obvious potential, moulding them into good and responsible citizens by playing a meaningful role in industry and society.

#### VISION (COMPUTER ENGINEERING DEPARTMENT)

To develop competent citizens who will be valuable contributors in the field of computer engineering.

#### MISSION (COMPUTER ENGINEERING DEPARTMENT)

- To create an environment which will stimulate research and innovation.
- To provide students with comprehensive knowledge of the latest developments in the field of Computer Engineering.

# PROGRAM EDUCATIONAL OBJECTIVES (PEOS) COMPUTER ENGINEERING DEPARTMENT

- Graduates will have successful career in their chosen field.
- Graduates will work on new and emerging technologies.
- Graduates will pursue higher studies at reputed institutions nationally/internationally.

# PROGRAM SPECIFIC OUTCOMES (PSOs) COMPUTER ENGINEERING DEPARTMENT

- Students will be able to draft and publish research papers at the national or the international level.
- Students will be able to undertake research based projects.
- Students will be able to organise / participate / conduct events like seminars / workshops / conferences.

#### **PROGRAMME OUTCOMES**

Engineering Graduates will be able to:

**PO1: Engineering Knowledge:** apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.

**PO2: Problem Analysis:** identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3: Design & Development of Solutions:** design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

**PO4:** Conduct Investigation of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

**PO5:** Modern Tools Usage: create, select and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

**PO6:** The Engineer and Society: apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7:** Environment & Sustainability: understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8: Ethics:** apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

**PO9: Individual & Team work:** function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings

**PO10:** Communication: communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO11: Project management & Finance:** demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12: Life-long Learning:** recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

# **Departmental Advisory Committee for 2019-20**

Sr. No.	Name	Designation
1	Management	-
2	Dr. Arun Kumar	Principal
3	Ashwini Save	HOD, Computer Engineering Department
4	Sunita Naik	NBA Task Force 1
5	Janhavi Sangoi	Project Head
6	Reshma Chaudhari	NBA Task Force 1
7	Umesh Mohite	CSI Head
8	Dnyaneshwar Bhabad	Placement Coordinator
9	Hemant Panchal	Parent
10	Rajendra Kadam	Parent
11	Sunil Nikam	Parent
12	Rupesh Yadav	Student
13	Sonali Sankhe	Student
14	Onkar Nagarkar	Alumni
15	Ankit Jain	Alumni
16	Ankit Sangoi	Industry Expert
17	Vibhavari P. N.	Industry Expert

## **Student Testimonials**



Name: Vishal J Bangera

**Batch:** 2020

**Designation:** Associate System Engineer Trainee at TCS for

Posten Norge Project

The departments are supportive and encourage extracurricular activities, both technical and non-technical. Different workshops are helped me to gain hands on experience of technologies. They are also focus on academics. Extra sessions are held for students who are weak in any subject. Feedback sessions are held to keep the teaching process up to the mark. Parent teacher meetings are held every year to keep the parents in the loop.



Name: Utkarsha Pravin Pawar

**Batch**: 2020

My four years of computer engineering were an overall bundle of joy, happiness and full of memories. I got abundant knowledge about not only my study course but also about the real-life market demand. Skill training, personality development were the things that were taught the most. My department arranged many workshops related to core technical subjects and those which were demanded by us students as well. Career guidance was looked upon under the training and placement section where in the right path was shown to us with personal guidance and one on one conversation with the student by taking into consideration his/her interest, skills and the type of job the student wants to do. Our faculty used to accompany the students personally on the day of the interview and aptitude as well. To assure better placements college even arranged lectures for confidence boosting, English speaking, verbal, quants and coding as well. The best part about these four years was we had a mentor for every one of us to speak up to the professor personally about the issues or the problems that we are facing. Mentor meetings used to be held occasionally without fail in which the mentor used to take up small group wise activities where in removal of stage fear through public speaking, debates or discussions took place. The mentor used to keep the record of us and timely update was given to HOD. Our HOD

personally gave attention to every single student of the batch. Attendance follow up, parent teachers meet and student's behavioural aspect with his/her grade improval, active participation was all recorded by HOD mam where she gave personal attention to every student. Extra lectures were taken by the staff for the weak students. Doubt solving lectures too were scheduled accordingly. Inter collegiate activities too were the part of education which included many technical competitions like the hackathon, project presentation and non-technical competitions like the youth festival. All the teachers helped and supported us during the preparation of any competition. They even accompanied the students during the day of the competition. Project guides encouraged us to publish technical papers in the international journal like IEEE and national journal like the NCRENB. Follow up of every small event or projects used to be done every week. College even organised fests, annual day function and events both the technical like the Techfest and non-technical along with sports gathering for the students. The most important thing is college provided with library along with the digital one where the librarian personally used to download and send the e-copy to the students. Canteen facility, huge sports grounds, big campus surrounded by plenty trees in the beauty of the nature and best teachers gave us everything that a student wishes for. The teachers were kind, caring and most importantly helping in nature even gave some financial support to students in need. Talking to our teachers was equal to talking to a counsellor where they explained and gave us the correct path in a friendly way whenever we were in need. Teachers kept the environment of the classroom joyful giving us abundant knowledge. Teaching was great, every professor completed the syllabus and accordingly practicals were performed without fail. Discipline, following rules and regulations were prioritized. Yoga day, swami Vivekananda born day, tree plantation drive, etc were all celebrated with whole enthusiasm. College also arranged guest lectures where they called Dr. Prakash Baba Aamte, etc. College trained us to be better individuals with everything they taught, we are lucky to be a part of this family. All I am today is because of the individual attention that our teachers gave on us and I thank everyone as you all moulded us into the best version of ourselves.



Name: Gaurav Vijay Suryawanshi

**Batch**: 2020

**Designation**: System Engineer at Infosys

I really feel great to write here, I am honored to be an ex-student of the Institute, and Thank you for the efforts that you all have put in me to make sure my future gets brighter than ever, I am really thankful to the department for supporting and always pushing me towards the success, Professors of the department taught us to visualize how success looks. Teaching by the professors was a very enthusiastic and innovative approach which made the subjects more interesting to study and ace the academics, Professors helped me to develop a problem-solving attitude with a positive attitude which will be a life lesson for sure. Apart from teaching and academics, Professors were very kind and talented in other activities, coordinating with students in extracurricular activities helped me to learn interpersonal skills which made the student-

professor relation more friendly and transparent. The Institute has a mentor system where a group of students is assigned to one professor, the department was slightly different, every professor was like a mentor to me.

"The Professors here are astounding and there are always willing to support you in anything you need. It can be overwhelming as a student but also exciting because you know you'll be learning a lot from the professors, department, friends"



Name: Siddhi Naik Batch: 2018 Designation:

I can positively say that computer engineering department has made me a better person. It has helped me develop a positive attitude towards my studies and discover more about myself. Teachers are very caring and interested in student's well-being. The thing I admire the most is the support I received from the department. I wouldn't have been able to achieve what I have achieved without the supportive environment.

## **Department Faculty**



Name: Prof. Ashwini Save

**Designation:** HOD

Qualification: PhD. Comp. Engg. (Pursuing), ME Comp.

Engg., BE Inft, PGDBA

**Research Interests**: Data warehouse, Data Mining, Software Engg, Machine Learning, Deep Learning, AI, Project Mgmt.



Name: Prof. Pallavi Vartak **Designation:** Asst. Prof.

Qualification: ME Inft, BE Comp. Engg

Research Interests: Image Processing, HCI, Project Mgmt



Name: Prof. Sunita Naik **Designation**: Asst. Prof.

Qualification: ME Comp. Engg., BE Inft.

**Research Interests**: Database management System, Data Mining, Image Processing, Distributed Computing



Name: Prof. Janhavi Sangoi Designation: Asst. Prof.

Qualification: ME Comp. Engg., BE(Inft)

Research Interests: Data warehouse, Data Mining, Security



Name: Prof. Reshma Chaudhari

**Designation**: Asst. Prof.

**Qualification**: ME EXTC, BE EXTC

Research Interests: Mobile Communication, Digital Signal

Processing



Name: Dr. Tatwadarshi P. Nagarhalli

Designation: Asst. Prof.

Qualification: PhD Sanskrit, ME Comp. Engg., MA Sanskrit,

PGDBA, BE(Inft)

**Research Interests**: Data Security, Artificial Intelligence, Machine Learning, Data Mining, Project Mgmt, NLP



Name: Prof. Dnyneshwar Bhabad

**Designation**: Asst. Prof.

Qualification: ME Comp. Engg, BE Comp. Engg.

Research Interests: Data Mining, Big Data, Cloud Computing,

IOT



Name: Prof. Umesh Mohite **Designation**: Asst. Prof.

Qualification: ME Comp. Engg., BE Comp. Engg Research Interests: Microprocessor, Data and Network

Security, Cryptography



Name: Prof. Vinit Raut **Designation**: Asst. Prof.

**Qualification**: ME (Comp. Engg.), BE (Comp)

Research Interests: Data Structures & Algorithms, Image

Processing, Cloud Computing, Computer Network



Name: Prof. Saniket Kudoo Designation: Asst. Prof.

Qualification: ME Comp. Engg., BE Comp. Engg.

**Experience**: 7 yrs

Research Interests: Cloud Computing, Mobile Computing, N/W

Security, Computer N/W



Name: Prof. Akshata Raut **Designation**: Asst. Prof.

Qualification: ME Comp. Engg., BE Comp. Engg.

**Experience**: 7 yrs

**Research Interests**: Data Mining and Sentiment Analysis.



Name: Prof. Monali Pimpale **Designation**: Asst. Prof.

Qualification: ME Comp. Engg., BE Inft.

**Experience**: 9 years

**Research Interests**: Networking and Machine Learning



Name: Prof. Bhavika Thakur **Designation**: Asst. Prof.

Qualification: ME Comp. Network and Info. Sec., BE Comp.

Science and Technology

**Experience**: 9 yrs

Research Interests: Network Security and Computer Network

# **Recent Publications by Faculty**

Sr. No.	Name of the faculty	Paper Title	Published / Presented
1	Ashwini Save	An Analysis of Drought Detection and Monitoring Techniques	NCRENB
		A Novel Approach for Early Prediction of Drought	ICACCS
		A New Approach to Detect Anomalous Behaviour in ATMs	ICACCS
2	Pallavi Vartak	Face recognition based attendance system	NCRENB
3	Sunita Naik	Netra-A Step towards Assisting Sightless	NCRENB
		A Hybrid Encryption Approach For Secured Authentication And Enhancement In Confidentiality Of Data	ICCMC 2020
4	Janhnavi Sangoi	Comparative Study For Fruit Ripeness Classification	NCRENB 2020
		Layers of WI-FI security	NCRENB 2020
		Wireless Security – An Approach Towards Secured WiFi Connectivity	(ICACCS)
		An Innovative Approach For Fruit Ripeness Classification	ICICCS
5	Reshma Chaudhari	Alcohol Detection System for Bike using Arduino and RF	International Journal of Advance Research, Ideas and Innovations in Technology
6	Dr. Tatwadarshi	Farmatron - Pest Detection and Treatment using AI based Drone	IJRASET
	P.N.	Real Time Machine Translation System for English to Indian language	ICACCS
7	Umesh Mohite	Detecting Alive Human Using Robot for Rescue Operation	NCRENB 2020
8	Vinit Raut	Blind Travelling Assistant	NCRENB 2020
		Vegetables and Fruits Estimation Prediction	NCRENB 2020
		Securing Web Server Against DDoS Attack	NCRENB 2020

# **Faculty Role and Responsibilities**

Faculty	Responsibility
Prof. Ashwini Save	Head of Department
Prof. Pallavi Vartak	Anti-Ragging and Grievances Discipline Alumni
Prof. Sunita Naik	Exam Time-Table
Prof. Janhavi Sangoi	Project Time-Table
Prof. Reshma Chaudhari	Result Analysis
Dr. Tatwadarshi P. N.	NBA Publications Website
Prof. Dnyaneshwar Bhabad	Notices and Minutes of Meeting Department Placement Internship
Prof. Umesh Mohite	CSI Lab Head
Prof. Vinit Raut	Google Drive Virtual Lab
Prof. Saniket Kudoo	Term Test Weak and Bright Students
Prof. Akshata Raut	Files Notice Board Term Test
Prof. Monali Pimpale	Department Library Mentor
Prof.Bhavika Thakur	FE Head

# Training Programs / Seminars / Workshops attended by Faculty

Sr. No.	Name	Training Program
		<ul><li>Leveraging Technology in Education</li><li>NAAC awareness program</li></ul>
		Academics to industry: Pointers to success
1	Ashwini Save	Emergence of Data Analytics and its impact on Data
		Warehouse
		Pantech E-bytes : Live Webinar series
		Python 3.4.3 Spoken Tutorial
		Emotional Intelligence
		Teaching With MATLAB
2	   Pallavi Vartak	Transform your ideas into reality by using 3D Printing
2	ranavi variak	Technology
		Blockchain Technology
		"NAAC: Systematic Data Organization and Presentation"
		• IPR
		Spoken tutorial technology
		Data Science
		IT and IPR 2020
3	Sunita Naik	Exploring Current Trends In Information Technology
		Blockchain Technology
		Transaction Analysis in Education
		Googling Google
		Academics to Industry: Pointers to Success  APA COLOR DE LA C
		NBA Self Assessment Report and its Criteria
		<ul> <li>Big Data And Hadoop</li> <li>Bluetooth control robot</li> </ul>
4	Janhavi Thakur	
4	Jaillavi Tilakui	Spoken tutorial technology      Development of a content & Online Assessment
		<ul> <li>Development of e-content &amp; Online Assessment</li> <li>IT and IPR 2020</li> </ul>
		Will G.
		Webinar Series     NBA Self Assessment Report and its Criteria
		Bluetooth control robot
5	Reshma Chaudhary	FDP on Python
	100mma Chadanary	Innovative Trends In Engineering And Technology
		E-learning tools for effective teaching and learning
		- Literating tools for effective teaching and rearning

6	Umesh Mohite	<ul> <li>Blockchain Technology</li> <li>IT and IPR 2020</li> <li>Academics to Industry: Pointers to Success</li> <li>Emergence of Data Analytics and its impact on Data Warehouse</li> <li>NBA Self Assessment Report and its Criteria</li> <li>Python 3.4.3 training</li> <li>Spoken Tutorial Technology</li> <li>Role of Engineering in uplifting the industry post COVID19</li> <li>Development of E-Content and Online Assessment</li> <li>Big Data and Hadoop</li> <li>Bluetooth control robot</li> <li>E learning tools for teaching and learning</li> <li>Matlab based teaching learning</li> </ul>
7	Vinit Raut	<ul> <li>NBA Self Assessment Report and its Criteria</li> <li>Python 3.4.3 with Spoken Tutorial Technology</li> <li>Development of E-content and online assessment</li> <li>Advanced CPP</li> <li>"Prayog - Experiments on Click" - Using Virtual Labs</li> <li>Recent Trends &amp; Innovations in Digital Forensic</li> <li>5G communication of next generation</li> <li>Launching an Amazon EC2 Linux instance in an AWS Educate Starter Account</li> </ul>
8	Saniket Kudoo	<ul> <li>NATIONAL WEBINAR on "Role of WIPO In Preservation of Intellectual Property"</li> <li>Webinar on Star Certified DevOps Expert</li> <li>Star Ethical Hacking Expert (EHE)</li> <li>Introduction to Digital Marketing</li> <li>Webinar on Creating Impactful Online Engagement</li> <li>Webinar on GIG Economy</li> <li>5G- The next generation communication</li> <li>Online FDP on Python 3.4.3</li> </ul>
9	Akshata Raut	<ul> <li>NBA Self Assessment Report and its Criteria</li> <li>Bluetooth control robot</li> <li>Big data and Hadoop</li> <li>Python 3.4.3</li> <li>"Transform your ideas into reality by using 3D Printing Technology</li> <li>"NAAC: Systematic Data Organization and Presentation</li> <li>Webinar series on IT &amp; IPR</li> <li>Development of e-content and online assessment</li> <li>Emotional intelligence</li> </ul>

10	Monali Pimpale	<ul> <li>Live webinar series</li> <li>IT AND IPR 2020</li> <li>Transform your ideas into reality using 3D printing</li> <li>Emotional intelligence</li> <li>Make education win during covind-19 and beyond</li> <li>Python 3.4.3 Training</li> <li>NAAC: Systematic Data Organization and Presentation</li> </ul>
		<ul> <li>Blockchain Technology</li> <li>Academics To Industry: Pointers To Success</li> </ul>
11	Bhavika Thakur	<ul> <li>NBA Self Assessment Report and its Criteria</li> <li>Introduction to Machine Learning and Deep Learning Algorithms</li> <li>Development of e-content and online assessment</li> <li>IT and IPR 2020</li> <li>5G-Communication on Next Generation</li> <li>Python 3.4.3</li> <li>Career Edge - Knockdown the Lockdown</li> <li>Role of Engineer in Uplifting the Industry post COVID-19 Lockdown in India</li> <li>Machine Learning and Applications</li> </ul>

# **Laboratories**

No.	Laboratory Name	Lab No.	Location
	Server Room		A-301
1	Database Management System Lab	E1	A-302
2	Data Structures & Algorithm Lab	E2	A-303
3	Software Engineering & Web Engineering Lab	E3	A-304
4	Network Lab	E4	A-305
5	Project Lab	E5	A-307
6	Programming Lab	E6	A-308
7	Operating System Lab	E7	A-309
8	Language Lab	E8	A-310

# **Class Room Details**

No	Class	Room No.
1	S.E. Comp. Engg.	B-302
2	T.E. Comp. Engg.	B-303
3	B.E. Comp. Engg.	B-301

## **Faculty Development Initiatives**

#### 1. Department Library

The department strives to provide with the best possible opportunity for the staff and the students to enhance their knowledge, departmental library is one initiative taken by the department in this regard.

The departmental library is managed by a staff in-charge. The library gives easy access to the books and research projects for both the faculty and students. Currently the departmental library has over 300 books.

## 2. Appraisal System

An effective performance appraisal system is a vital instrument for gauging and improving the performance and contribution of the faculty. The institute has a well-defined appraisal and well formatted appraisal system and it is effectively implemented in the department. Every teaching faculty submits self-appraisal forms to the head of the department. The head of the department evaluates the self-appraisal from filled by the faculty and comments on the performance of the faculty. This form is then sent to the principal.

In presence of head of department principal conducts one to one meeting with all the teachers gives feedback/suggestions/comments on the performance. The performance appraisal is carried out in each semester. In every academic year awareness is also created among the faculty about the importance of performance appraisal, in the department.

## 3. Feedback System

According to the schedule mentioned in academic calendar, HOD of department takes offline feedback from students. Students are provided with a copy of feedback form which assesses the staff on the basis of parameters. Parameters used to assess the faculties are Way of teaching, Extent of understanding the subject & satisfaction, Ability to clear the doubts, Attitude towards the students, Punctuality, Interaction during lecture, Motivation.

Students also give comments about faculties in a written form. Ratings are calculated on the basis of score and comments given by the students. Depending on the comments and ratings by the students, HOD communicates and guides the staff regarding further improvements through corrective actions. Second meeting with the students is conducted in the same semester to assess the effectiveness of the corrective action undertaken.

#### 4. Parents Meet'19-20

Introduction of Computer Engineering Department was given. Parents were introduced with departmental laboratories and facilities. They were made aware of different Department initiatives such as Mentor system, Meetings under mentor system, Cumulative attendance system & terms regarding Attendance. Syllabus of respective classes also Policies regarding K.T. and year drop for student, the Examination pattern, internal exams and university exam schedule and Weightage were discussed.

College timing, ID card is compulsory in the college premises, Mobile phones are not allowed in college premises and Instructions regarding dress code were given. Placement Selection Process, Activities conducted for training the students, previous placement records. We plan industrial visits only for one day.

Parents were requested to Understand the structure of engineering course, Stay connected with mentors and other teachers, Communicate with students regularly regarding academic activities. Motivate students for participating in the co-curricular, extra-curricular activities. Staff members have interacted with parents to solve their doubts. Details were discussed.

Valuable suggestions were taken from parents. Curriculum feedback was taken from all the attendee parents. All the parents interacted with respective mentors and assessed their student's progress.

## 5. Technical Magazine

(HTTP://WWW.VIVA-TECHNOLOGY.ORG/NEW/TECH-NEXT)



## A Biannual Technology Review Magazine

We live in a time where technology is an indispensable part of our everyday life. It is impossible to imagine our daily routines without these technologies, right from the coffee maker machine to the mobile devices to the computers; especially internet has become a necessity. And these technologies have undergone and undergo, changes and updates on a very frequent basis. For this reason, a Technical magazine is like a holy book for the people who follow technology as a passion.

Steve Ballmer says "The number one benefit of information technology is that it empowers people to do what they want to do. It lets people be creative. It lets people be productive. It lets people learn things they didn't think they could learn before, and so in a sense it is all about potential."

Keeping this in mind the Computer Engineering Department, VIVA Institute of Technology published the first Technical Magazine in the institute called the 'TECH-NEXT: A Biannual Technology Review Magazine' to empower the Faculty and Students to be creative and productive; providing a platform to showcase their knowledge about the new technologies which are becoming or which will become an integrated part of our life, and help others to learn about these technologies.

TECH-NEXT is a Technology Review Magazine Published by Computer Engineering Department of VIVA Institute of Technology. The Magazine is published twice in a year. The Magazine was launched on 23rd September 2016 in the presence of Management members of VIVA Trust, Principal of VIVA Institute of Technology and staff members of Computer Engineering Department.

The department was also able to secure International Standard Serial Number (Online) for the technical magazine as well, ISSN (Online): 2456-5105.



## **Initiatives for Students and CSI**

## 1. Technical Magazine

Tech-Next: A Biannual Technology Review Magazine is published by the Computer Engineering department of VIVA Institute of Technology. Views and opinions expressed in the Tech-Next are those of individual authors and contributors and it is not in any way a reflection of official policy or views of the editors or publishers. This should not be construed as legal or professional advice. The publisher, editors and the contributors are not responsible for any decisions taken by the readers on the basis of these views and opinions. Although every care is taken to ensure genuineness of the writings in this publication, the Computer Engineering department of VIVA Institute of Technology, does not attest to the originality of the respective authors content. Instructors are permitted to photocopy the articles for non-commercial purposes with proper acknowledgement of the authors.

Students took great interest in this initiative and in the first issue of the second volume majority of the technical articles published were from the students. In the second volume more than 90% of the articles have been contributed by the students



## 2. Technical Faceoff (Monthly Event-2) – 09/08/2019

The CSI-VIVA TECH successfully organized the event Technical Faceoff at Computer Engineering Department, VIVA Institute of Technology. The event was organized by CSI-VIVA TECH and was attended by Computer Engineering students. The event was conducted to encourage students and to improve their technical knowledge and presentation skills.

It covered various requirements for engineering students of technical knowledge about various fields of computer engineering; Faceoff was a debate between the two groups for testing student's knowledge on current technologies as well as their presentation style. This event helped students to increase their confidence level and knowledge about the latest technologies. There was a large participation from students of S.E, T.E and B.E Computer Engineering. Winners were felicitated with Certificate.

Overall it was an interactive event.



## 3. Guest Lecture on Compiler Designing - 04/03/2020

The CSI-VIVA Tech successfully organized the guest lecture on Compiler Designing at VIVA Institute of Technology. The lecture was conducted by Prof. Lynette Lopes, DJ Sanghavi College of Engineering, Mumbai and was attended by Computer Engineering Students from T.E. She has a vast knowledge about this subject and also has experience in conducting guest lectures for the same.

She covered all the basic topics and parsing techniques of compiler design. She shared her research work on compiler design. The lecture certainly enabled students to implement their own compiler for a simple procedural language, using a self-learning platform.

Overall, it was an interactive session.



## 4. Workshop on Advanced IOT- 27/02/2020 & 28/02/2020

The CSI-VIVA Tech successfully organized the workshop on Advanced IOT (Internet of Things) at VIVA Institute of Technology, Computer Engineering Department. The workshop was conducted by Tech Cryptors and was attended by Computer Engineering Students from T.E and S.E. The deliverer had experience in their field and had a vast knowledge about the subject. They were also experienced in conducting workshops for the same and well versed about the topic. In the workshop, they covered all the topics for the advanced IOT and also helped clear the basics. They covered various topics in detail. In this session, they also covered use of IOT for better user Interface. Various topics such as home automation, Wi-Fi connectivity with devices, etc. were performed. At the end of the workshop they also conducted a small competition among participating groups. They conducted the whole workshop by maintaining constant interaction with the students and also cleared their doubts.

Overall it was an interactive session.



## 5. Seminar on Data Science Using Python - 17/09/2019

The CSI VIVA-tech successfully organized the seminar on Data Science using Python at the Computer Engineering Department, VIVA Institute of Technology. The seminar was conducted by CSI VIVA-tech and was attended by Computer Engineering students and Prof. Shraddha More of St. Johns College of Engineering was the lecturer for the day.

The students got an idea about the prerequisites needed in Data Science Using Python and also discussed various fields and domains in engineering. It was an interactive seminar session where students put forth their questions and opinions and got their doubts cleared regarding Data Science Using Python. There was large participation from students of T.E and B.E Computer Engineering.

Overall it was an interactive and helpful seminar.



#### 6. TECHNICAL PAPER PRESENTATION - 30/01/2020

The CSI VIVA-Tech successfully organized the 2<sup>nd</sup> Inter Collegiate Technical Paper Presentation, VIVA Institute of Technology. The event was conducted by CSI VIVA-tech and was attended by Computer Engineering students. The event was conducted to encourage students and to improve their presentation skills.

It covered the most important prerequisite for engineering students i.e. presentation skills which many engineering graduates are lacking now in the industry and also the students learnt how to write a technical paper. Students were required to write a technical paper about current latest engineering trends and innovations and present it in front of other students through Power point presentation. There was large participation from students of S.E, T.E and B.E Computer Engineering. Winners were felicitated with Certificate.

Overall, it was an interactive event



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## 7. Seminar on Cybersecurity - 12/03/2020

The CSI VIVA-tech successfully organized the seminar on Cybersecurity at the Computer Engineering Department, VIVA Institute of Technology. The seminar was conducted by CSI VIVA-tech and Mr. Nishant Sawant and Mr. Vishal Shah from Meta Infotech were the lecturers for the day. The lecturers were very well versed in their domain knowledge and also shared their experience of working in the Cybersecurity industry.

The students got an idea about the prerequisites needed in Cybersecurity and also discussed various fields related to Cybersecurity. The students were also explained about the current needs and trends of Cybersecurity and about the modern day tools of Cybersecurity. It was an interactive seminar session where students put forth their questions and opinions and got their doubts cleared regarding Cybersecurity. There was large participation from students of the Third Year and Second Year Computer Engineering Department and MCA.

Overall it was an interactive and helpful seminar.



# BE Projects 2019-20

Sr.	Guide Name	Project Title
No.		
1	Ashwini Save	<ul> <li>A novel approach for early prediction of drought</li> <li>A new approach to detect anomalous behavior in ATMs</li> </ul>
2	Pallavi Vartak	<ul> <li>Face recognition based attendance management system.</li> <li>SLAT: Sign Language Analyser and Translator</li> </ul>
3	Sunita Naik	<ul> <li>NETRA: A step towards assisting sightless</li> <li>A hybrid encryption approach for secure authentication and enhancement in confidentiality of data.</li> </ul>
4	Janhavi Sangoi	<ul> <li>Wireless security - An approach towards secured WiFi connectivity</li> <li>An innovative approach for fruit ripeness classification.</li> </ul>
5	Reshma Chaudhary	<ul> <li>Alcohol Detection System for Bike using Arduino and RF</li> <li>Search and Rescue operation during Natural Calamities using Unmanned Arieal Vehicle(UAV)</li> </ul>
6	Tatwadarshi P.N.	<ul> <li>FarmaTron - Pest detection and treatment using AI based Drone.</li> <li>Real Time Machine Translation system for English to Indian language</li> </ul>
7	Dnyaneshwar Bhabad	<ul> <li>Abhiswarika : An intelligent waste classifier and collector bot</li> <li>An Automation of Traffic Management System For Better Efficiency And Emergency Services</li> </ul>
8	Umesh Mohite	<ul> <li>Alive human detection robot for rescue operation</li> <li>Embedded System For Criminal Fingerprint Identification</li> </ul>
9	Vinit Raut	<ul> <li>Securing Web Server Against DDoS Attack</li> <li>Vegetables and Fruits Estimation Prediction</li> <li>An Application for Travelling Assistant for Blind</li> </ul>
10	Saniket Kudoo	<ul> <li>IOT based smart cultivation: A crop recommendation system</li> <li>Ethereum EVM: Plebiscite System using Face Recognition</li> <li>Fraudulent Detection of Computer-manipulated Documents using Image Processing</li> </ul>

# **Student Achievements for AY: 2019-20**

Event Name	Smart India Hackathon 2019 hardware edition (SIH 2019)
Team Members	Tanmay Talele, Manish Chavan, Aashish Jethwa, Sanika Patil, Juilee Bhombe
Brief Description	Team Quebik developed an innovative technology which converts traffic signals into a unified smart system.  Leveraging the much-talked-about Internet of Things (IoT), they solved traffic congestion which is a daily occurrence for the traffic harassed citizen. Every junction (traffic signal) has a camera with Raspberry Pi sensors fixed. This records data like traffic density and type of vehicles on the road. Based on this data, it sets timers on signals and shared this data with other signals.
Benefit to Society	To solve traffic congestion
Venue/Organization by Date	Reva university, Bangalore on 8th July- 12th July
Position Obtained	1st Rank (with cash prize Rs. 75,000/-)
Photographs	MHRD MIC PRINT DESIGNATION AND AND AND AND AND AND AND AND AND AN

Event Name	52 <sup>nd</sup> Inter Collegiate/ Institute/ Department Cultural Youth	
	fest 2019	
Team Members Neeraj Guhagarkar, Vishal Rasal		
Brief Description	Western Group Song	
Benefit to Society		
Venue/Organization by Date	Abhinav college of Arts, Commerce and Science, Bhayander	
Position Obtained	3 <sup>rd</sup> Rank	

Event Name	52 <sup>nd</sup> Inter Collegiate/ Institute/ Department Cultural Youth
	fest 2019

Team Members	Sunetra Mhaskar, Bhagyashree Gangan		
Brief Description	Skit Group A (Marathi)		
Benefit to Society			
Venue/Organization by Date	Abhinav college of Arts, Commerce and Science, Bhayander, August 19, 2019		
Position Obtained	1st Rank		

Event Name	52 <sup>nd</sup> Inter Collegiate/ Institute/ Department Cultural		
	Youth fest 2019		
Team Members	Vishal Rasal		
Brief Description	Natyasangeet Vocal Solo		
Benefit to Society			
Venue/Organization by Date	Abhinav college of Arts, Commerce and Science,		
	Bhayander, August 19, 2019		
Position Obtained	2 <sup>nd</sup> Rank		

Event Name	52 <sup>nd</sup> Inter Collegiate/ Institute/ Department Cultural Youth fest 2019	
Team Members	Vishal Rasal	
Brief Description	Indian Light Vocal Solo	
Benefit to Society		
Venue/Organization by Date	Abhinav college of Arts, Commerce and Science, Bhayand August 19, 2019	
Position Obtained	3 <sup>rd</sup> Rank	

Event Name	52 <sup>nd</sup> Inter Collegiate/ Institute/ Department Cultural Youth fest 2019			
Team Members	Vishal Rasal			
Brief Description	Indian Classical Vocal Solo			
Benefit to Society	-			
Venue/Organization by Date	Abhinav college of Arts, Commerce and Science, Bhayander, August 19, 2019			
Position Obtained	2 <sup>nd</sup> Rank			

Event Name	52 <sup>nd</sup> Inter Collegiate/ Institute/ Department Cultural Youth fest 2019		
Team Members	Rutika Naik, Swikruti Kore		
Brief Description	Indian Folk Dance		
Benefit to Society	Enriching new generations with cultural heritage		
Venue/Organization by Date	Abhinav college of Arts, Commerce and Science, Bhayander, August 19, 2019		
Position Obtained	Consolation Prize		

eYIC 2019-20 (e-Yantra Ideas Competition)
1. Rahul Mishra 2. Aditi Tare 3. Simran Thakur 4. Vishal
Bangera
Project on "Abhiswarika: An Intelligent Waste Collector and
Classifier Bot"
Nowadays, trash has become a problem in the society and the
ecosystem due to the way people get rid of it. This project is can replace the traditional way of dealing with waste.
K.J. Somaiya College of Engineering, Mumbai on 27 <sup>th</sup> & 28
February 2020
Participation

# **Toppers**

## Academic Year 2019-20

## BE

Rank	Student Name	CGPI/SGPI
1	/THAKUR RUCHA VIVEK	9.38
2	/MAITY PALLAVI KAMAL	8.84
3	/JOSHI KIRTI MANOJ	8.71

## TE

Rank	Student Name	CGPI/SGPI
1	KANOJIA AMIT CHAGANLAL PREMA	10
1	/ MALGUNDKAR HARSHALI SUNIL BHARATI	10
2	/ NAIK RUTIKA GANESH REKHA	10
3	SHETTY DEVASHISH PRAVIN SANGEETA	10
4	VAISHAMPAYAN SWANAND SUHAS SAYALI	10

## SE

Rank	Student Name	CGPI/SGPI
1	SAMANI MOHAMMAD HAMID AMJAD ALI SALIMUNISSA	10
2	GUPTA AMIT MUNNA URMILA	9.56
3	LIMBAD DEEP DHARMENDRA GEETA	9.56
4	PATIL YASH SUBHASH BHAVANA	9.48

# Placement Record 2019-20

SR NO.	NAME OF STUDENT	COMPANY	DESIGNATION	PACKAGE
1	PATIL JAY AJAY	Amazon.in	Linux and Hardware Engineer- Intern/Trainee	5 LPA
2	BILLAVA PALLAVI JOGA	LTI	Graduate Engg Trainee (I)	3.5 LPA
3	CHAVAN SNEHAL BABURAO	LTI	Graduate Engg Trainee (I)	3.5 LPA
4	GAWAD PRATIK LAXMAN	LTI	Graduate Engg Trainee (I)	3.5 LPA
5	KANSARA MANTHAN SANJAY	LTI	Graduate Engg Trainee (I)	3.5 LPA
6	MALGAONKAR HEMANGI SUDHIR	LTI	Graduate Engg Trainee (I)	3.5 LPA
7	THAKUR RUCHA VIVEK	LTI	Graduate Engg Trainee (I)	3.5 LPA
8	PATIL SAURABH ARUN	LTI	Graduate Engg Trainee (I)	3.5 LPA
9	GAWAD PRATIK LAXMAN	TCS	Assistant System Engineer-Trainee	3.37 LPA
10	THAKUR RUCHA VIVEK	TCS	Assistant System Engineer-Trainee	3.37 LPA
11	MAITY PALLAVI KAMAL	TCS	Assistant System Engineer-Trainee	3.37 LPA
12	MOGAVEERA PRAJWAL MUTTHA	TCS	Assistant System Engineer-Trainee	3.37 LPA
13	PATEL HARDIK MOHAN	TCS	Assistant System Engineer-Trainee	3.37 LPA
14	SUGDARE AAKASH MANGESH	TCS	Assistant System Engineer-Trainee	3.37 LPA
15	CHAVAN SNEHAL BABURAO	Capgemini	Analyst	3.8 LPA
16	MAITY PALLAVI KAMAL	Capgemini	Analyst	3.8 LPA
17	PATEL HARDIK MOHAN	Capgemini	Analyst	3.8 LPA
18	TALELE TANMAY LILADHAR	Capgemini	Analyst	3.8 LPA
19	TARE ADITI DEEPAK	Capgemini	Analyst	3.8 LPA
20	VAGAL SANKET DILIP	Capgemini	Analyst	3.8 LPA
21	VYAS RAJ BANWARI	Capgemini	Analyst	3.8 LPA
22	JOSHI KIRTI MANOJ	Capgemini	Analyst	3.8 LPA

## Computer Engineering Department

23	KAMBLI KAUSTUBH DEEPAK	Capgemini	Analyst	3.8 LPA
24	SUGDARE AAKASH MANGESH	Capgemini	Analyst	3.8 LPA
25	GUPTA DEEPAKKUMAR ACHCHHELAL	Nimap	Trainee Soft. Engg.	1.92 LPA
26	VANJARE OMKAR SANJAY	Nimap	Trainee Soft. Engg.	1.92 LPA
27	SHWETA DUBEY	Nucsoft Ltd.	Software Engineer	3.2 LPA
28	RAUT ADITYA ANIL	QAD	Intern	2.1 LPA
29	JADHAV PRADNESH SANJAY	QAD	Intern	2.1 LPA
30	JADHAV PRADNESH SilverlInk SANJAY		IT Recruiter	1.8 LPA
31	CHASKAR RUTUJA	SilverlInk	IT Recruiter	1.8 LPA
32	RAUT MEET JITENDRA	SilverlInk	IT Recruiter	1.8 LPA
33	MARTHAK HARSH PANKAJ	Quality Kiosk	Digital Quality Engg.	2.25 LPA
34	PANGA RAHUL BABU	Quality Kiosk	Digital Quality Engg.	2.25 LPA
35	GUPTA MOHITKUMAR JAYPRAKASH	Quality Kiosk	Digital Quality Engg.	3 LPA
36	RATHOD JAYDEEP VITTHAL	TCS		
37	RAUT ADITYA ANIL	TCS		

# **Recent Publications by Students in AY: 2019-20**

Sr. No	Author 1	Author 2	Author 3	Author 4	Paper Title	Published / Presented
1	Manthan Kansara	Pallavi Maity	Hemangi Malgaonkar	Ashwini Save	An Analysis of Drought Detection and Monitoring Techniques	National Conference on "Role of Engineers in Nation Building"
2	Manthan Kansara	Pallavi Maity	Hemangi Malgaonkar	Ashwini Save	A Novel Approach for Early Prediction of Drought	ICACCS 2019
3	Tanmay Talele	Manish Pawar	Sanket Vagal	Dr. Tatwadarshi P.N.	Farmatron - Pest Detection and Treatment using AI based Drone	IJRASET
4	Nishant Pimple	Utkarsha Pawar	Tejashree Salunke	Janhavi Sangoi	Wireless Security – An Approach Towards	ICACCS 2019
5	Rucha Thakur	Gaurav Suryawans hi	Hardik Patel	Janhavi Sangoi	An Innovative Approach For Fruit Ripeness Classification	ICICCS 2019

6	Aditya Parab	Prajwal Mogaveera	Abhishek Nikam	Ashwini Save	A New Approach to Detect Anomalous Behaviour in ATMs	ICACCS 2019
7	Meet Jitendra Raut	Sugam Mahesh Chaudhari	Aditya Anil Raut	Reshma Chaudhari	Alcohol Detection System for Bike using Arduino and RF	ICACCS 2019
8	Meet Jitendra Raut	Sugam Mahesh Chaudhari	Aditya Anil Raut	Reshma Chaudhari	Alcohol detection system for bike using Arduino and RF	International Journal of Advance Research, Ideas and Innovations in Technology
9	Mohitkum ar Gupta	Shyam Gupta	Rahul Panga	Sunita Naik	Netra-A Step towards Assisting Sightless	National Conference on "Role of Engineers in Nation Building" organized by VIVA Institute of Technology, Mumbai
10	Raj Vyas	Kirti Joshi	Hitesh Sutar	Dr. Tatwadarshi P.N.	Real Time Machine Translation System for English to Indian language	ICACCS 2019
11	Deepakku mar Gupta	Prakash Gupta	Rakesh Yadav	Umesh Mohite	Detecting Alive Human Using Robot for Rescue Operation	ICACCS 2019

#### BOOTSTRAP, 2019-20

#### Computer Engineering Department

12	Raj Mhatre	Shashank Angane	Pallavi Vartak	Face recognition based attendance system	International Journal of Advance Research, Ideas and Innovations in Technology
13	Pallavi Billava	Srishti Bangera	Sunita Naik	A Hybrid Encryption Approach For Secured Authenticatio n And Enhancement In Confidentialit y Of Data	4th International Conference on Computing Methodology and Communication (ICCMC 2020)
14	Nishant Jitendra Pimple	Utkarsha Pravin Pawar	Tejashree Ashok Salunke	Layers of WiFi Security	National Conference on Role of Engineers in Nation Building - 2020

# **Contact**

Computer Engineering Department

VIVA Institute of Technology

Shrigaon, Virar (E) 401305

Tel: 0250 – 7770002544 (ext. 161/140)

www.viva-technology.org