

BITS & BYTES



VOLUME 5

Issue 1

2019-20

V. E. S. POLYTECHNIC

Computer Engineering Department

Newsletter: January 2020

This Issue

- © **Message from HOD**
- © **Editor's Pick**
- © **Departmental Activities**
- © **Staff Activities**
- © **Student Activities**
- © **Rhetorica**
- © **Alumni Speaks**

Editorial

Computer Engineering Department, wish to steadily develop the skills of students so that they can excel in their career and professional life. To do this we involve students and ourselves in various development activities apart from regular classroom activities which will help the students to achieve their goals. Thus, we present our Academic year 2019-20 first edition of our department newsletter "BITS & BYTES" an initiative steps towards growth of students, faculty and department.

Message from HOD

Computing software and systems are becoming increasingly integral to our lives, modernizing the way we live, work and communicate. With Young, Dynamic & Dedicated Faculty, Department is committed to provide quality & smart education to the students to cater current and future requirement of Industry. So, here my editorial team presents the detailed achievements of the students & staff during Odd Semester of Academic Year 2019-2020.



Mr. Avinash Dangwani

I/C HOD

CO Department

Vision

To be centre of excellence in the field of computer engineering by providing value based quality technical education

Mission

- ⊗ To impart & inculcate both theoretical as well as practical knowledge in students
- ⊗ To develop competent professionals who are proficient in analysis, design & implementation of broadly-defined computer problems
- ⊗ To create confident youth with a sense of duty, discipline and responsibility.

Programme Educational Objectives (PEOs)

- ⊗ Provide socially responsible, environment friendly solutions to Computer engineering related broad-based problems adapting professional ethics.
- ⊗ Adapt state-of-the-art Computer engineering broad-based technologies to work in multi-disciplinary work environments.
- ⊗ Solve broad-based problems individually and as a team member communicating effectively in the world of work.

Programme Outcomes (POs)

1. Basic knowledge: An ability to apply knowledge of basic mathematics, science and engineering to solve the engineering problems.
2. Discipline knowledge: An ability to apply discipline - specific knowledge to solve core and/or applied engineering problems.
3. Experiments and practice: An ability to plan and perform experiments and practices and to use the results to solve engineering problems.
4. Engineering Tools: Apply appropriate technologies and tools with an understanding of the limitations.
5. The engineer and society: Demonstrate knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering practice.
6. Environment and sustainability: Understand the impact of the engineering solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.
7. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
8. Individual and team work: Function effectively as an individual, and as a member or leader in diverse/multidisciplinary teams.
9. Communication: An ability to communicate effectively.
10. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the context of technological changes.

Programme Specific Outcomes (PSOs)

1. Computer Software and Hardware Usage: Use state-of-the-art technologies for operation and application of computer software and hardware.
2. Computer Engineering Maintenance: Maintain computer engineering related software and hardware systems.

EDITOR'S PICK

Internet Of Things (IoT)

- PREDICTIONS TO LOOK FORWARD TO IN 2020

At present world the internet is no more limited to just computers, smartphones, and tablets. It has now touched hearts of several other devices and is making our lives more convenient by enabling us to communicate with devices with ease and simplicity. The phenomena 'Internet of Things' is an umbrella term used to describe devices that relate to internet. Today, Internet of Things has become a mainstream topic and the technology world is striving hard to make key inroads towards development of IoT.

Flatworld Solutions has provided some predications for Internet of Things which reflects a lot about the future of IoT and how it will look by 2020.

1. By 2020, Internet of Things Will Connect 21 Billion Devices. The IoT has taken the technology world by storm & its limitless applications have fueled its popularity. Hence, every year more and more devices are getting connected with IoT.
2. Cities Will Continue to Become Smart. Modern cities make it easier for citizens to travel and access basic amenities. Thus the system will enable cities to maintain a detailed profile of its citizens and curb crime and other issues.
3. IoT Will See Fragmentation. This fragmentation could also mean that we would see several eco-systems of devices being developed and facilitated under one bigger IoT ecosystem.
4. There Will Be Increase in Security Concerns. As the network of connected devices grows, it becomes daunting to regulate it and to keep the data safe. Companies will have to develop better solutions to ensure that data remains safe and there are no potential leakages in the network.
5. A Boost to Artificial Intelligence. Machine learning is a critical aspect of artificial intelligence and the growth of IoT will boost artificial intelligence as well.
6. Companies Will Have to Develop Data Processing Solutions. The current data processing systems won't be enough and hence companies will have to invest in solutions that are faster and cheaper.

(Source: Flatworld solutions/Articles)

- **Mr. Surendar Rawat**
Faculty & Editor

Vedānta

The Vedanta recognizes no sin it only recognizes error. And the greatest error, says the Vedanta is to say that you are weak, that you are a sinner, a miserable creature, and that you have no power and you cannot do this and that.

The moment I have realized God sitting in the temple of every human body, the moment I stand in reverence before every human being and see God in him - that moment I am free from bondage, everything that binds vanishes, and I am free.

Our duty is to encourage everyone in his struggle to live up to his own highest idea, and strive at the same time to make the ideal as near as possible to the Truth.

- **Swami Vivekananda**



Testimonials

VES Polytechnic is a place of learning, fun, culture, lore, literature and many such life preaching activities. Studying at the VES Polytechnic brought an added value to my life. It gave me an opportunity to meet different kind of people and learn a number of things.

“Failure is simply the opportunity to begin again, this time more intelligently”



- **Dhruv Aswani**
CO2I

Staff Activities

Apart from the student's development, the department also focuses on faculty development so that the teachers can adapt themselves with the technological changes. Hence the department encourages the staff to participated in training programs, conference and workshops.

Training Attended

- ⊗ Deepa Gupte attended one day Workshop on Baseline Exam at MSBTE on 24th July 2019.
- ⊗ Asavari Salve & Sonali Pawar participated in three day Industrial training at L & T Training Institute from 29th – 31st July 2019.
- ⊗ Dashrath Kale participated in one week Industrial training at Sumago Infotech, Panchavati, Nashik, Maharashtra from 29th – 2nd August 2019.
- ⊗ Dashrath Kale completed Swayam Online Course Organized by H.H.B. Garhwal Univeristy from July – October 2019.
- ⊗ Neha Mulchandani, Meena Talele, Jaishree Anerao & Asavari Salve attended one day MSBTE Capacity Development Workshop for Polytechnic Teachers held on 8th October 2019 and organized by VES Polytechnic.
- ⊗ Mahadeo Narlawar, Neha Mulchandani & Meena Talele attended one day workshop on NPTEL-MOOC's on 19th October 2019 organized by Saraswati Institute of Technology.
- ⊗ Shubhangi Chintawar attended one day workshop on Machine learning & Deep Learning held at VESIT, Mumbai on 30th December 2019.

Testimonials

VES Polytechnic is one of the highly reputed polytechnic in Mumbai. I am really lucky and it is a very great experience for me to be studying in this institution. The institute provides all round development of students. The faculties at CO department are very good and they ensure that each and every student should learn and excel in their studies.

“An investment in knowledge always pays the best interest”



- **Nikhil Vaishya**
CO2I

Students Activities

Co-Curricular Activities

CSI

- ⊗ Seminar on Basic Data Science by Prakshal Doshi on 7th September 2019 for first year CSI students.
- ⊗ Seminar on Basic Android App Development using Firebase by Ayush Suri on 25th September 2019 for first year CSI students.
- ⊗ Quiz competition was held on 29th September 2019 with 4 rounds: 1: Technical Quiz, 2: Blind Fold Typing, 3: Crypt Your Mind, Final Round: Reverse Blind Fold Typing.

TPP

- ⊗ Sarwasvi Ingoley, Riddesh Shah & Dhanvi Sheth (CO5I) won the 1st prize in Intra-departmental Technical Paper Presentation held on Engineer's Day.
- ⊗ Sahethi Depuru Guru, Sarthak Dhargalkar, Dhruv Shah & Bhavesh Galani (CO5I) won the 2nd prize in Intra-departmental Technical Paper Presentation held on Engineer's Day.
- ⊗ Glen Dhingra, Vivek Gonal, Vivek Gonal, Isha Jain & Hanshika Jasuja (CO5I) won the 3rd prize in Intra-departmental Technical Paper Presentation held on Engineer's Day.

Prizes

- ⊗ Kesav Pai, Vrajesh Hedge and Soham Dixit won 1st prize in Quiz Competition organized by CSI held on 25th September 2019.
- ⊗ Chirag Chugh, Dev Ahuja and Chirag Narang won 2nd prize in Quiz Competition organized by CSI held on 25th September 2019.
- ⊗ Sakshi Kirmathe and Kinjal Singh won 3rd prize in Quiz Competition organized by CSI held on 25th September 2019.

Students Activities

Workshop

- ⊗ Manan Shah attended one day 'Python Online Course' organized by UDEMY on 2th July 2019.
- ⊗ Manan Shah participated in 'Aryabhata National Maths Competition' organized by AICTSD on 17th September 2019.
- ⊗ Divyal Chheda participated in two day workshop on 'Andriod App Development' organized by Kyrion Technologies Pvt Ltd from 24th – 25th August 2019.
- ⊗ Manan Shah participated in two day workshop on 'Machine Learning' organized by Kyrion Technologies Pvt Ltd from 24th – 25th August 2019.
- ⊗ Sakshi Talreja participated in two day workshop on 'Andriod Development' organized by KJSIEIT from 19th – 20th September 2019.
- ⊗ Priyanka M, Ritesh D and Amisha A attended two day workshop on 'Blockchain & Social Causes' organized by TSEC Hackathon from 20th – 21st September 2019.
- ⊗ Shraddha Manan Shah participated in two day workshop on 'Machine Learning' organized by Kyrion Technologies Pvt Ltd from 24th – 25th August 2019.
- ⊗ Manan Shah attended one day workshop on 'Python Online Learning' at Deep Learning Prerequisites organized by Udemy on 2nd August 2019.

Extra-Curricular Activities

Expert Lectures

- ⊗ Premanand Shenoy, Coordinator, Lakshya Team, delivered lecture on 'Attitude and Attribute required for Business' under EDP for CO5I students organized by VES Polytechnic on 2nd August 2019.
- ⊗ Varsha Ganatra, HOD-Commerce, VESASC, delivered lecture on 'ABC of Business Money Matter' under EDP Activity-1 for CO5I students organized by VES Polytechnic on 17th September 2019.
- ⊗ Premanand Shenoy, Coordinator, Lakshya Team, delivered lecture on 'Attitude and Attribute required for Business' under EDP for CO5I students organized by VES Polytechnic on 17th September 2019.

Testimonials

I am very glad to be part of one of the most esteemed institute. The dedication of the staff is appreciable.

The supporting staffs have always available for our needs. The facilities provided by the department are at par with the requirements. The staff apart from the educational needs also fulfils our need as a mentor and helps us to overcome a number of personal and social problem.

“Educating yourself does not mean you were stupid in the first place, it means that you are intelligent enough to know that there is plenty left to learn”



- **Divyal Chheda**
CO4I

Rhetorica

Vehicle Ignition & Security Using RFID Technology

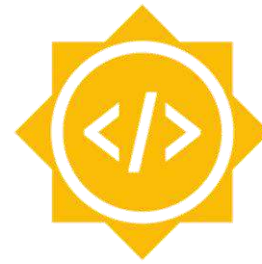


In today's world car security is at risk. Many robberies are taking place due to less security in high end and mid segment cars. There is no proper way to secure our car. Using RFID technology we can secure our vehicles.

Traditional key system is not that much secure as the key can be stolen or there may be a situation when the key gets stuck into key hole or it breaks or bends. If the key is stolen the intruder can misuse or steal the vehicle. To avoid such circumstances, we have designed a new security system for cars. In this security system there is a RFID scanner which scans RFID cards which acts as a key to start the ignition. The same key can be used to get entry into the vehicle. Multiple copies of a key can be easily made which is totally risky nowadays. No copy of RFID can be made easily. By chance if anyone gets the RFID key he/she cannot enter into the vehicle without actual key. There will be two set of RFID key one will be used to enter into the vehicle and another will be used to start the ignition.

Advantage of this system is that there is two step verification while entering into the vehicle. If we want to start the ignition then we have to put the card in front of the RFID scanner and if we want to turn off ignition it will be switched off using the same RFID card or directly by turning the key off.

- *C05I, Shreyas Kelkar
Isha Jogekar
Yash Patel*



Google Summer of Code

The Google Summer of Code (GSoC) program gives university students the opportunity to gain real-world experience by working on a three month coding project with one of more than 200 open source organizations under the guidance of a mentor.

For 15 years GSoC has brought thousands of students into open source software development.

Program Goals

- To motivate university students to begin participating in open source software development.
- To give students exposure to real world software development scenarios (testing, version control, software licensing, etc.).
- To help students develop their technical skills and build their networks.
- To help open source projects bring in new developers into their communities.
- Create more open source code for everyone.

Eligibility and application

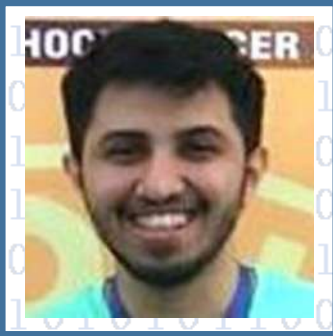
Candidates must be:

- Enrolled in or accepted into an accredited university program as of May 6
- 18 years or older on date they register for program
- Not be a resident of an United States embargoed country
- Eligible to work in the country in which they reside for duration of program

*adapted from
<https://buildyourfuture.withgoogle.com/programs/summer-of-code/>

*Surendar Rawat
- Faculty*

Alumni Speaks



It gives me immense pleasure to write something about my college and especially about my department. Computer Department of VES Polytechnic is committed to the all-round development of students, i.e., in terms of academics, cultural programs, technical workshops, CSI activities. I feel proud in appreciating our HOD Mr. Avinash Dangwani for his guidance and most experienced, young, knowledgeable & enthusiastic teachers who are always ready to work for us and gave the best.

AYUSH SURI

Being a renowned Polytechnic college in Mumbai, college focuses much on discipline and student's studies. College provides facilities like proper environment in classroom, facility of projector, water cooler, etc. College has given lot of opportunities to build our career. It was easy for me to achieve opportunities and success because of the hard work of teachers. I really thank all my teachers of computer department for standing beside us whenever we needed your support. Miss you all.

PALAK DAVDA



The college has really helped me a lot for ensuring my journey in these 3 years of diploma. I really miss the years I spent in diploma with my friends as the passage has been excellent and enjoyable. I would like to give full credit to my faculties and the other members of this institution for their support and motivation. I express my deep full gratitude and salute all my teacher's for the effort and pains that they took for us to ensure that we score good in board exams.

ROSHINI KATARIA

Editorial Members



Students Team Member

1. **Diyal Chheda (CO4I)**
2. **Nikhil Vaishya (CO2I)**
3. **Sonnal Katara (CO2I)**
4. **Druv Aswani (CO2I)**

(Clockwise from top left)

Staff Incharge

Mr. Surendar Rawat