



Vidya Vikas Education Trust's

# Universal College of Engineering

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Approved by AICTE, DTE, Maharashtra State Government and Affiliated to Mumbai University

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ITS



BYTES

*An Initiative By*



*Department of Information Technology*

## #SATYAVACHAN

**DON'T JUST SET GOALS.  
HUNT THEM.**



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Designed by Ms. Mudra Doshi & Mr. Akshay Agrawal

## India to reach over 900 million Internet users by 2023

With the increasing adoption of connected devices, the number of internet users is on the rise. Cisco's annual report suggests that India will have over 907 million internet users by 2020. The report further states that the number of devices and connections is growing faster than the rate of population, i.e., at 7% CAGR. The forecasts are based on the independent analyst forecast and its own intellectual property. With this number, India's 64% population will come online. Over half a billion Indian citizens are already using internet. There will be 966 million total mobile users by 2023. Smartphones will account for 38% of all networked devices while connected TVs will account for 12%.



The projections also suggest that the country will have 2.1 billion networked devices.



## India to reach over 900 million Internet users by 2023

Anand Bhaskar, Managing Director of Service Provider Sales for Cisco India said "As digital literacy, mobile penetration, and Internet connectivity grow deeper into the hinterland, a massive shift will be created in Internet usage and consumption patterns across the country.

This rise in connectivity and changing consumption patterns will challenge service providers' ability to service their customers in an optimal manner. Flatter and more secure networks leveraging cloud and edge computing, as well as automation to manage the ever-expanding network, is essential for them to keep pace in the digital world.“ Indian users have already adopted the 4G revolution. With many government services becoming online, Indian citizens are adopting the internet at a growing rate. By 2023, 67.2 million users will have 5G connections.

Every one in five Internet users will have a 5G connection. The 4G connections will account for 53.1% of total mobile internet users.

The number of machine to machine (M2M) applications such as smart meters, video surveillance, transportation, healthcare monitoring, will also account for majority of the internet connections in India. The M2M connections will be 25% of total devices by 2023. As far as connected mobile devices are concerned, 697.4 million users will be connected via wired/WiFi device.

### Source:

<https://content.techgig.com/india-to-reach-over-900-million-internet-users-by-2023/articleshow/74221643.cms>

**- MR. AKSHAY AGRAWAL  
(ASSISTANT PROFESSOR)**



# COMPUTER VISION

## What is computer vision?

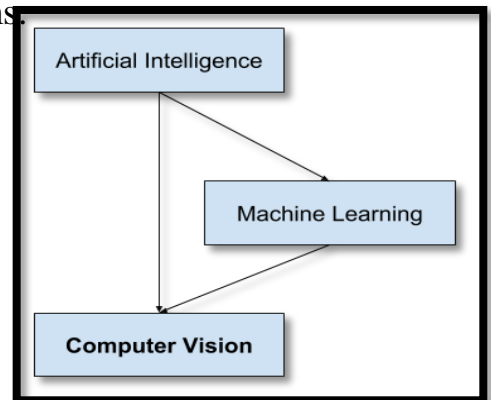
Computer vision is the process of using machines to understand and analyze imagery (both photos and videos). While these types of algorithms have been around in various forms since the 1960's, recent advances in Machine Learning, as well as leaps forward in data storage, computing capabilities, and cheap high-quality input devices, have driven major improvements in how well our software can explore this kind of content.

It is a multidisciplinary field that could broadly be called a subfield of artificial intelligence and machine learning, which may involve the use of specialized methods and make use of general learning algorithms.

The goal of computer vision is to understand the content of digital images. Typically, this involves developing methods that attempt to reproduce the capability of human vision. Understanding the content of digital images may involve extracting a

description from the image, which may be an object, a text description, a three-dimensional model, and so on. Computer vision is the broad parent name for any computations involving visual content – that means images, videos, icons, and anything else with pixels involved. But within this parent idea, there are a few specific tasks that are core building blocks:

- In **object classification**, you train a model on a dataset of specific objects, and the model classifies new objects as belonging to one or more of your training categories.
- For **object identification**, your model will recognize a specific instance of an object – for example, parsing two faces in an image and tagging one as Tom Cruise and one as Katie Holmes.



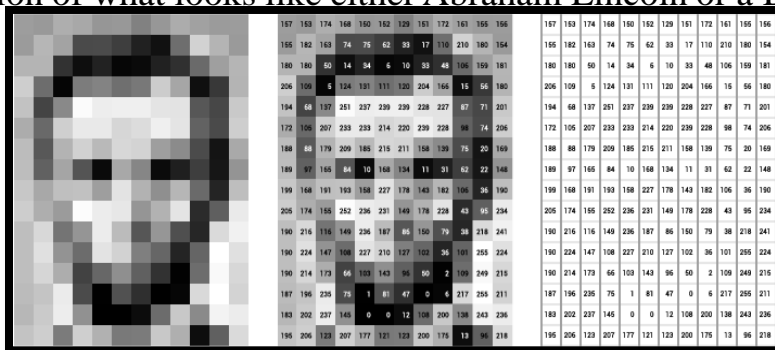
# COMPUTER VISION

## How computer vision works

One of the major open questions in both Neuroscience and Machine Learning is: how exactly do our brains work, and how can we approximate that with our own algorithms? The reality is that there are very few working and comprehensive theories of brain computation; so despite the fact that Neural Nets are supposed to “mimic the way the brain works,” nobody is quite sure if that’s actually true.

For example, studies have shown that some functions that we thought happen in the brain of frogs actually take place in the eyes. We’re a far cry from amphibians, but similar uncertainty exists in human cognition. Machines interpret images very simply: as a series of pixels, each with their own set of color values. Consider the simplified image below, and how gray scale values are converted into a simple array of numbers:

Think of an image as a giant grid of different squares, or pixels (this image is a very simplified version of what looks like either Abraham Lincoln or a Dementor). Each



pixel in an image can be represented by a number, usually from 0 – 255. The series of numbers on the right is what software sees when you input an image. For our image, there are 12 columns and 16 rows, which means there are 192 input values for this image.

### Source:

<https://algorithmia.com/blog/introduction-to-computer-vision>

**- MS. SANKETI RAUT**  
**(ASSISTANT PROFESSOR)**



## 5 Gadgets that you can add to your bucket list this year

### 3. Smart Shoes:

Smart wristbands were the trend of 2019. Fitness freaks will be seen adopting smart running shoes powered by various trackers and sensors. Amazfit, Nike, Adidas will lead the smart shoes market. Chinese tech maker, Xiaomi has also launched a smart running shoes over the past few years.

### 4. Sony PlayStation Controller:

The patent filing by Sony suggests that the company is probably working on a new PlayStation controller. The latest design features two new buttons, and looks remarkably similar to the current DualShock 4.

### 5. Xtra PC:

This is the gem of a device to turn your old PC into a modern computer. If you have an old PC or laptop lying around, you can simply slot this tiny USB drive that contains fast Linux-powered operating system (OS). You don't need any technical skills to upgrade your old PC with this device.

### Source:

<https://content.techgig.com/5-gadgets-that-you-can-add-to-your-bucket-list-this-year/articleshow/73796224.cms>

**- MR. AKSHAY AGRAWAL  
(ASSISTANT PROFESSOR)**



## Coronavirus

Coronaviruses (CoV) are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). A novel coronavirus (nCoV) is a new strain that has not been previously identified in humans. Coronaviruses are zoonotic, meaning they are transmitted between animals and people. Detailed investigations found that SARS-CoV was transmitted from civet cats to humans and MERS-CoV from dromedary camels to humans. Several known coronaviruses are circulating in animals that have not yet infected humans.

Common signs of infection include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties. In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death.

Standard recommendations to prevent infection spread include regular hand washing, covering mouth and nose when coughing and sneezing, thoroughly cooking meat and eggs. Avoid close contact with anyone showing symptoms of respiratory illness such as coughing and sneezing. The online training – entitled “Emerging respiratory viruses, including nCoV: methods for detection, prevention, response and control” – is currently being produced in all official UN languages and Portuguese.

*A diseased person has a prospect of getting well by personal effort. He cannot borrow health from others. It's no coincidence that four of the six letters in health are “heal”.*

### Source:

<https://www.who.int/health-topics/coronavirus>

**- MS. ADITI MALKAR  
(ASSISTANT PROFESSOR)**



## Who is Happy? The Peacock and the Crow

A crow lived in the forest and was absolutely satisfied in life. But one day he saw a swan. “This swan is so white,” he thought, “and I am so black. This swan must be the happiest bird in the world.” He expressed his thoughts to the swan. “Actually,” the swan replied, “I was feeling that I was the happiest bird around until I saw a parrot, which has two colors. I now think the parrot is the happiest bird in creation.”

The crow then approached the parrot. The parrot explained, “I lived a very happy life until I saw a peacock. I have only two colors, but the peacock has multiple colors.”

The crow then visited a peacock in the zoo and saw that hundreds of people had gathered to see him. After the people had left, the crow approached the peacock. “Dear peacock,” the crow said, “you are so beautiful. Every day thousands of people come to see you. When people see me, they immediately shoo me away. I think you are the happiest bird on the planet.”

The peacock replied, “I always thought that I was the most beautiful and happy bird on the planet. But because of my beauty, I am entrapped in this zoo. I have examined the zoo very carefully, and I have realized that the crow is the only bird not kept in a cage. So for past few days, I have been thinking that if I were a crow, I could happily roam everywhere.” That’s our problem too. We make unnecessary comparison with others and become sad. We don’t value what God has given us. This all leads to the vicious cycle of unhappiness. Learn to be happy in what you have instead of looking at what you don’t have. There will always be someone who will have more or less than you have. Person who is satisfied with what he/she has, is the happiest person in the world.

### Source:

<https://www.moralstories.org/happy-peacock-crow/>

**- MS. ROVINA DBRITTO  
(ASSISTANT PROFESSOR)**

## Each One – Teach One



- Topic: Cordova
- Conducted On: 6th February 2020

### Summary:

- The lecturer for this topic was Abhilasha Varma from TE IT.
- Abhilasha Varma has immense knowledge related to Mobile App Development acquired by attending different workshops, seminars & certifications.
- She taught the students topics like - Introduction of Cordova, How to install Cordova, How to create project in Cordova, How to work on platforms like browser, android, ios in project, How to add plugins like camera, geolocation, file, Introduction to Phonegap, How to convert to app and install in mobile phone using Phonegap.



It was a very important topic and was very well received by the students.

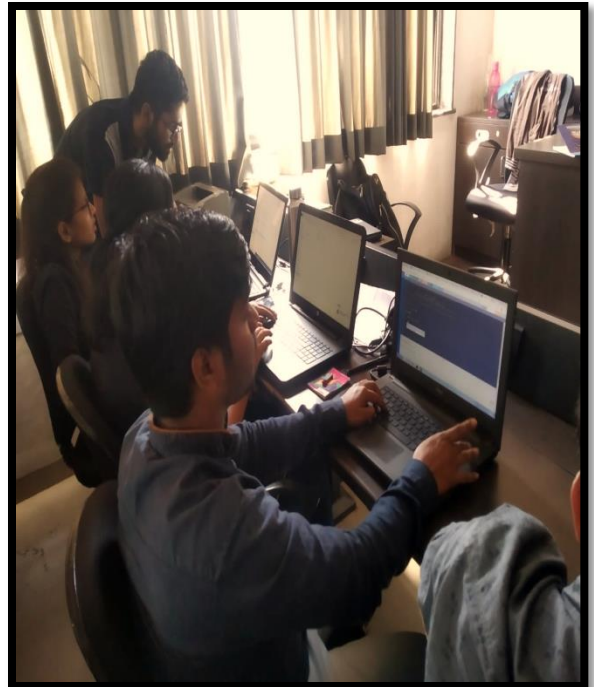
## Each One – Teach One



- Topic: Android App Development
- Conducted On: 20th February 2020

### Summary:

- The lecturers for this course were - Aditya Singh & Rishav Mandal from TE IT.
- They have immense knowledge in the field of Mobile App Development. They have participated and won in many competitions among which - Hackstomp 2019 was one.
- In the topic, Aditya Singh & Rishav Mandal have covered some major topics of Android development as it used in Industry Level Application.
- They taught Android Permissions, Android Layouts, Android XML designing, Android dynamic control creation, Android Signed APK generation, Android App Deployment on Playstore, Android Manifest File Importance, Materialize UI designing, Snackbar and Toast alert using Coordinator Layout, Java Section, Validating of User controls from server, Firebase Authentication, Firebase NoSql database, Android Security Modules, Etc.



The students enjoyed the session and gained knowledge throughout. This is very useful while creating projects and also when entering the industry. .

# **HACKSTOMP 2019 - 2020**

On February 13<sup>th</sup> and 14<sup>th</sup> , Universal College of Engineering, Department of Information Technology under ITSA organized HACK-STOMP, a 24hrs Non-stop coding competition for Engineering students all over Mumbai under the theme “#INNOVATIONFORINDIA”



There were 50 teams, 200 students participated in the competition proposing and implementing their ideas to innovate India. The participants were from various colleges like, Vidyavardhini College of Engineering and Technology,, Shree L R Tiwari College of Engineering, Shah & Anchor Kutchhi Engineering College, St. John College of Engineering and Management and Universal College of Engineering, Xavier's institute of engineering, Ramrao Adik Institute of Technology, Theem College Of Engineering, Thakur Ramnarayan College, KJ Somaiya Institute of Engg. & I.T, Shri Bhagubhai Mafatlal Polytechnic, Sardar Patel Institute of Technology, Fr Conceicao Rodrigues College of Engineering and Government Polytechnic Mumbai .

The event was inaugurated by Campus Director Dr. J. B. Patil sir, Head of the Department Mrs. Yogita Mane and Event coordinator Mrs. Mudra Doshi. The projects for first round was evaluated by internal faculties, second round was evaluated by Mr. Karan Wagh, Mr. Saurabh Mhatre, Mr. Manjot Singh Bajwa during the first day. The evaluation was done by Mr. Rishikesh Lohote, Mr. Keval Morakhia and Mr. Kalpesh Vartak (System Administrator at Capgemini and Founder & CEO of Kalpesh InfoTech) during the 2<sup>nd</sup> Day (14<sup>th</sup> Feb) .

# HACKSTOMP 2019-20



## WINNERS



**Team Name:** Lemon Software

**College Name:**

Shree L. R. Tiwari College of Engineering

**Name of the student:**

1. Akshay Karpe (Universal College of Engineering)
2. Avinash Chaurasiya
3. Harshit Singh
4. Pintu Prasad



## 1<sup>ST</sup> RUNNER UP

**Team Name:** CODESQUAD

**College Name:** K.J. Somaiya Institute of Engg. & I.T

**Name of the student:**

1. Burhanuddin Udaipurwala
2. Idrees Dargahwala
3. Shivam Bhanushali
4. Meet Bhanushali (UCoE)

## 2<sup>ND</sup> RUNNER UP

**Team Name:** ENCEPHALON

**College Name:** St. John College of Engineering

**Name of the student:**

1. Abhishek Bhanushali
2. Pathak Pratik
3. Shirley Pereira

## 3<sup>RD</sup> RUNNER UP

**Team Name:** VARIABLES UNDEFINED

**College Name:** SFIT

**Name of the student:**

1. Piyush Surkar
2. Karan Suhas
3. Shivam Sinha
4. Mahesh Makwana

## CONSOLATION

**Team Name:** PENTIUM

**College Name:** Universal college of Engineering

**Name of the student:**

1. Kunal Vishwasrao
2. Rahil mehta
3. Satish Aoudichya





# **STUDENT'S PLACEMENT**



**HEARTIEST CONGRATULATIONS..!!!**

Sr. No.	Name of the student	Company	Package (in LPA)
1.	Vadhiya Bhavin	Nimap Technologies	3.25
2.	Tawade Ganesh		
3.	Kotian Akshay		
4.	Margaj Gaurang	Neosoft Technologies	3.6
5.	Trivedi Nilang		
6.	Karia Rushiraj	LTI	3.6
7.	Praveen Prince	TCS	3.65
8.	Kudturkar Saurabh	Infosys	3.65
9.	Saw Chandan	Paramatrix	3.6
10.	Suvarna Shipra	Q Spiders	3.5
11.	Pednekar Kajal		
12.	Modi Tanvi		
13.	Vaity Sampada		
14.	Sinha Aakash	Swabhav Techlabs	3.5
15.	Sinha Aakash	Zycus	4.00
16.	Sinha Aakash	BridgeLabz	4.00
17.	Patil Saurabh		
18.	Tawade Ganesh		
19.	Anakal Swati		
20.	Rathod Saurabh		
21.	Limbachiya Swatiben		
22.	Shinde Ruhi		
23.	Tawade Ganesh	Capgemini	4.25

***“This prestigious milestone will definitely act as a fillip in your progress...!!!”***



# **STUDENT'S ACHIEVEMENT**



## **HEARTIEST CONGRATULATIONS..!!!**

**MR. MEET BHANUSHALI, T.E. (IT) WON N CODE  
EVENT AT VYRO 2K20.**

**MS. RUCHITA PANCHAL, B.E. (IT) WON SELFIE  
MANIA EVENT AT VYRO 2K20.**

### **Short Biography of Mother Teresa**

•Mother Teresa (1910–1997) was a Roman Catholic nun who devoted her life to serving the poor and destitute around the world. She spent many years in Calcutta, India where she founded the Missionaries of Charity, a religious congregation devoted to helping those in great need. In 1979, Mother Teresa was awarded the Nobel Peace Prize and became a symbol of charitable, selfless work. In 2016, Mother Teresa was canonized by the Roman Catholic Church as Saint Teresa.

•Mother Teresa was born in 1910 in Skopje, the capital of the Republic of Macedonia. Little is known about her early life, but at a young age, she felt a calling to be a nun and serve through helping the poor. At the age of 18, she was given permission to join a group of nuns in Ireland. After a few months of training, with the Sisters of Loreto, she was then given permission to travel to India. She took her formal religious vows in 1931 and chose to be named after St Therese of Lisieux – the patron saint of missionaries.

•On her arrival in India, she began by working as a teacher; however, the widespread poverty of Calcutta made a deep impression on her, and this led to her starting a new order called “The Missionaries objective of this mission was to look after people, who nobody else was prepared to look after. Mother Teresa felt that serving others was the teachings of Jesus Christ.



#### **Source:**

[https://www.biographyonline.net/nobelprize/mother\\_teresa.html](https://www.biographyonline.net/nobelprize/mother_teresa.html)

**- MS. MUDRA DOSHI  
(ASSISTANT PROFESSOR)**

# UPCOMING EVENT'S





**Universal College of Engineering**  
Accredited with B+ Grade by NAAC  
 (Permanently Unaided | Approved by AICTE, DTE & Affiliated to University of Mumbai)  
 Near Bhajansons and Punyadham, Kaman Bhiwandi Road, Vasai, Palghar-401208.



**DTE Code: 3460**

## IETE - ISF invites you to participate in 6<sup>th</sup> National Level Project Exhibition cum Poster Presentation

**About the Event**  
 Our college hosts this National Level Event annually, for the budding and aspiring engineers, researchers of our country to help them understand the connection between science, technology and real-life situations. The key purpose for hosting this event is to provide a platform to intellectuals for showcasing their brilliant ideas in the form of projects and poster. Participation being from across the country, it gives an opportunity to every participant to gauge themselves about their standing in India. Our transparency in judging and awarding has been appreciated by most of the participating institutions and we have a progressive rise in the count of the registrations, **391 groups (1,630 participants) in 2018 and 553 registrations (1632 participants) in 2019** from across India.

**Prize Money**

Level	Prizes	Category 1	Category 2	Category 3	Category 4
UG	Winner	3000/-	3000/-	3000/-	3000/-
	1 <sup>st</sup> Runner Up	2000/-	2000/-	2000/-	2000/-
	2 <sup>nd</sup> Runner Up	1000/-	1000/-	1000/-	1000/-
Diploma	Winner	3000/-	3000/-	3000/-	3000/-
	1 <sup>st</sup> Runner Up	2000/-	2000/-	2000/-	2000/-
	2 <sup>nd</sup> Runner Up	1000/-	1000/-	1000/-	1000/-
Consolation Prize		7000/-			

**Eligibility Criteria**  
 1. Diploma Students  
 2. UG Students (FE, SE, TE, BE)

**Categories:**  
 Category 1: - Electronics and all applied branch  
 Category 2: - IT / Computer  
 Category 3: - Civil  
 Category 4: - Mechanical / Automobile

**Instructions**  
 1. Maximum 4 students per team (A team of 2, 3 or Individual entries accepted).  
 2. No restrictions on presentation format.  
 3. Time for event will be from 9 am to 5 pm.  
 4. Participants need to carry their college I-cards.  
 5. **All the participants will get National Level Participation certificate.**  
 6. Simulation based projects are also welcome, idea based models are accepted (Poster/Partial projects).  
 7. Poster with details of the project can be prepared on cardboard or chart paper (any size).  
 8. The organizer shall not be obliged/ responsible to provide other utilities like air compressor, oscilloscope, computer, stabilizer, etc.  
 9. E-Projects requiring computer must bring laptops and other required accessories.  
 10. Judging will be completely based on merit of the project's idea.

**Registration Details (Per participant):**  
 Online link for registration: <https://bit.ly/6NLPECP>

**Registration Charges:**  
 Diploma = Rs. 50 per Participant  
 UG = Rs.100 Per Participant  
 Spot Entries are also allowed with registration charges  
 Diploma = Rs. 100 Per Participant  
 UG = Rs. 200 Per Participant

**About the College**  
 Universal College of Engineering was established in 2012 as a part of Vidya Vikas Education Trust's, affiliated to University of Mumbai. With its unique location, our College offers a spacious and serene learning environment. Our College offers B.E. courses in Civil, Computer, I.T., ExTC and Electronics Engineering. Our Campus boasts of spacious classrooms, well equipped laboratories, state-of-the-art presentation equipments, an expensive library, intimate tutorial rooms and Literati cafe.

**EVENT DATE**  
**13<sup>th</sup> March 2020**  
**Last Date for Registration**  
**11<sup>th</sup> March 2020**



Scan for College Location

**Student Coordinator**  
 Harshit Singh : 7798968631  
 Akhil Thakkar : 7028769376  
 Utsav Bheda - 7977036526  
 Nishant Vekariya - 9028759596  
 Swami Samant-9920265084  
 Shubham Patil -9130503042

**Venue**  
 Universal College of Engineering  
 Near Bhajansons and Punyadham,  
 Kaman-Bhiwandi Road, Vasai.

**Bus facility from Borivali, Vasai and Thane on first cum first serve basis.** (30 to 45 minutes from Borivali, Vasai and Thane railway station)

Scan for previous edition



You can send your articles to the following email id's:  
[mudra.doshi@universal.edu.in](mailto:mudra.doshi@universal.edu.in) or [akshay.agarwal@universal.edu.in](mailto:akshay.agarwal@universal.edu.in)

**Kaman - Bhiwandi Road, Survey No. 146 (Part), Village: Kaman,  
 Taluka: Vasai, District: Palghar – 401208.**