



Vidya Vikas Education Trust's

# Universal College of Engineering

( Permanently Unaided | Approved by AICTE, DTE & Affiliated to University of Mumbai )  
(Accredited with B+ Grade by NAAC)

## Coffee & Code ;

An Initiative by the **Department of Computer Engineering**

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### VISION

To be recognized as a department that provides quality technical education and research opportunities that eventually caters to helping and serving the community.

### MISSION

- To groom the students to participate in curricular and co-curricular activities by providing efficient resources.
- To motivate the students to solve real-world problems to help the society grow.
- To provide a learning ambience to enhance innovations, team spirit and leadership qualities for students.

### PROGRAM EDUCATIONAL OBJECTIVES

The graduates will:

- PEO 1) Establish a career in the field of computer engineering
- PEO 2) Pursue higher education or become entrepreneurs
- PEO 3) Be lifelong learners



### V. A. Shiva Ayyadurai

Indian-born American Scientist  
MIT (BS, MS, MEng, PhD)  
Inventor Of Email

“

*Every Human Being is born to innovate..*

”

### Compiled By:

The Department of Computer Engineering

### Designed and Edited by:

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## Industrial Visit at Mahindra and Mahindra, Worli

**DATE:** 13 TH March 2019

**VENUE:** Mahindra and Mahindra Finance Ltd, Worli

**TIMING:** 9:00 am to 5:00pm



An Industrial Visit was arranged at Mahindra and Mahindra Finance Ltd, Worli for Universal College of Engineering. Total 18 students turned up along with 2 faculties Mrs. Kanchan Dabre and Mrs. Snehal Sherkhane.

Dr Suresh Shan addressed us with many insightful stories related to the company and shared his personal knowledge regarding latest and trending technologies.

Students asked questions regarding current market needs and whatever doubt they had were cleared by Dr. Suresh. Apart from this Ms. Aarti took an interactive session on interview demo wherein students participated and showed their skills. The overall visit was very interesting and helpful for the students.



## Seminar on “Speed Reading”

**DATE:** 5th April 2019

**VENUE:** Room No 417

**TIMING:** 11am – 1pm

CSI student’s chapter of Universal College of Engineering organized Speed Reading seminar which was conducted on 5th April, 2019. 28 students attended this seminar that was conducted in the room no 417.



This seminar was conducted by Mr. Sundar Das. Speed Reading is the process of rapidly recognizing and absorbing phrases or sentences on a page all at once rather than identifying individual words. It can be helpful to enhance memory and logic, increase focus and boost confidence





## TA Session on “SVM Classifier”

**DATE:** 15th March 2019

**VENUE:** Room No 417

**TIMING:** 12.45pm – 2.45pm



TA session on “SVM Classifier implementation for Machine Learning” was conducted on 15th March, 2019 by Ms. Niti Patel who is a TA of faculty Mrs. Vishakha Shelke for BE Computer Div B from 12.45 pm to 2.45 p.m. Ms Niti explained the Support Vector Machine Supervised machine learning algorithm to all the students. In the session following topics were covered by 2 BE project demo where Complete working of 2 projects was shown to students

1. How to develop Machine Learning application?
2. How to implement selected Machine learning algorithm in coding?
3. What are the advantages of using Machine learning techniques?

## TA Session on “Basics of Arduino UNO”

**DATE:** 12th April 2019  
**VENUE:** Room No 506  
**TIMING:** 3.00pm – 4.00pm



Aiming to make aware students about the hardware component Arduino, PH sensor and Temperature sensor, a one-hour lecture on 'Basics of Arduino UNO' was held on April 12, 2019 at Universal College of Engineering. (Room No-520 at 3:00pm).The purpose of this lecture was to get students to know more about the hardware and its interfacing with different components.

The lecture was conducted by Mr. Amit Gupta an Teaching Assistant of Mrs. Silviya Dmonte for subject Computer Organization and Architecture.students attend the lecture where from second year and third year.

Students attend the lecture where make aware about the microcontroller Atmega 328P, its working, pin diagram. Interfacing of Arduino UNO with Temperature and Humidity sensor (DHT 11) and Interfacing of PH sensor with Arduino UNO was also explained. Students where shown practical implementation of that. The main focus was done on the programing language of Arduino called d processing. The lecture was concluded by giving more stress to implement such projects and integrate it with software.



## National Board of Accreditation (NBA) Workshop

**DATE:** 29th April and 5th May 2019

**VENUE:** Room No 218 and 219

**TIMING:** 9.00am – 5.00pm

Our institute had arranged for a workshop on NBA. The experts for the workshop were:

- 1) Dr. Sharad Mhaiskar
- 2) Dr. Meena Chintamaneni
- 3) Mr. Nilesh Mohile

Topics discussed in the workshop were:

- 1) What is accreditation? , 2) Why accreditation?, 3) What is OBE?
- 4) Vision, Mission statements, 5) How to formulate Vision, Mission
- 6) What are PEOs?, 7) Processes for PEOs, 8) what are POs
- 9) Course Outcomes, 10) CO attainment



## Smart India Hackathon 2019

Smart India Hackathon is World's Biggest Open Innovation Model that aims to provide platform for technology students to offer innovative solutions for pressing problems which we face in our daily lives, thus inculcating a culture of product innovation and a mind-set of problem solving. After the grand success of Smart India Hackathon 2017 & 2018, the third edition of this initiative was launch in August 2018. The primary objective of SIH2019 is to harness the creative energy and ability to our technology students across all technology institutions (more than 50 lakh students from 6000+ institutions) to think out-of-the-box and offer innovative solutions for the development of our nation.

### Benefits of SIH 2019

- Opportunity to create world class solutions for challenges faced within the Private sector organizations, NGOs & union ministries
- Helps the Private sector hire the best minds from across the nation
- Smart India Hackathon 2019 would have 2 sub-editions – Software edition (a 36-hour software product development competition)(2nd and 3rd march 2019) and Hardware edition (a 5 days long hardware product development competition)

### About SIH 2019:

2,00,000+ students have submitted the idea i.e out of 57,897 teams 34,000 teams have been selected to be part of SIH 2019 grand finale at 48 nodal centers in different cities in India.

### Summary of participation:

Comps	21
IT	4
EXTC/ETRX	5
Total teams Registered	30

### No. of Solutions submitted:

Department	Software solutions	Hardware solutions
Comps	40	7
IT	13	0
ETRX/EXTC	8	2
Total	61	9

**Total solutions submitted from UCOE: 70**



# DEPARTMENTAL ACHIEVEMENTS(Cont.)

## Teams selected for SIH 2019 grand finale:

Sr No.	Team Name	Team members	Faculty Name	Nodal Centers
1	Team Webdroid	Sagar Mistry Aaditya Gosalia Yash Kuvawala Keyu Jain Gunjan Mehta Prasad Nikumbh	Rucha Pathari	Kochi
2	The Bro code	Dharmit Shah Sandeep Kumar Somil Shah Dhruv Seta Kartik Shah Tanvi Ambre	Vishakha Shelke	Nagpur
3	Truecoders	Jisha Chirayath Yash Arawal Ayush Shetty Mahesh Mistry Vipul Bhoir Mohd Tanveer	Apurva Chaudhari	Kerla
4	Cryptic Coders	Bharat Nisar Kush Vaishnani Neha Singh Jinal Darji Ayush Ladha Akhil Thakkar	Aniket Kore	Pune
5	Coding Champs	Akash Bhimani Dristi Goda Sainath Chilukuri Shruti Suvarna Santoshi Bisht Urmila Patel	Dhwani Barot	Nagpur
6	Web_devs	Raj Shah Sanket Magodia Chinmay Parab Vikas Pandey Rushabh Mehta Kinal Jogani	NA	Chennai



Team 1



Team 2



## Campus Connect Program got published in 'Hindustan Times'

Universal College of Engineering had organised "Campus Connect Program" with D-Link in association with CSI. The report was published in Hindustan Times newspaper dated 22nd April 2019, Page 6. The idea behind this seminar was to improve the Information and Communication Technology (ICT) skills among its students.

### campus cocktail

## Gen DIY: Students get hands-on training in tech

HT Correspondent

htmetro@hindustantimes.com

**MUMBAI:** A few colleges in the city's suburbs recently organised events to impart hands-on training to their students in some of the emerging technologies.

The events, organised in collaboration with the Computer Society of India (CSI) and D-Link Academy, were aimed at improving digital literacy among students through project-based learning.

The industry-academic collaboration also sought to improve the employability of the students.

Earlier this month, the information technology (IT) department of MGM's College of Engineering and Technology, Navi Mumbai, held an Android Application Development Workshop. Participants were introduced

to Android and the related software for developing mobile applications. Students then developed a few basic Android applications to insert the audio and video and to get permission for internet cameras and sensors.

"The idea behind the workshop was to encourage an aptitude for application development among students from the initial stages of their education. The students will soon be in a position to develop their own apps," said Sudhanshu Ojha, D-Link Academy.

Similarly, Universal College of Engineering, Vasai, had recently held a seminar to



Students of Universal College of Engineering, Vasai, at the seminar on Information and Communication Technology (ICT). HT

improve Information and Communication Technology (ICT) skills among its students.

The seminar taught students

how to design, build and manage ICT networks. They also learnt valuable tips for problem-solving, collaboration and critical

THE EVENTS WERE AIMED AT IMPROVING DIGITAL LITERACY AMONG STUDENTS THROUGH PROJECT-BASED LEARNING

thinking.

"It was an industry-connect initiative. Students will now be working on developing a laboratory, which can facilitate communication between students and faculty members, within the college campus," said Kanchan Dabre, an assistant professor at the college.

**HINDUSTAN TIMES CAMPUS COCKTAIL IS ON FACEBOOK**



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What more can colleges do to improve their students' practical knowledge?

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## Python as one of the most popular programming languages

Python is one of the most popular programming languages. It's known for its large collection of utility libraries, and because the language is interpreted on the fly, Python programs can be quicker to debug than those that must be compiled before execution. Python can be found at companies such as Instagram, Google, Spotify, and YouTube.

As Python's domination of the desktop and the cloud continues, two camps— MicroPython and CircuitPython—are working on hardware-centered versions of the interpreted language for embedded projects such as microcontroller-based gadgets. Traditionally, the tight computing constraints of embedded hardware favors compiled languages, but more-powerful microcontrollers are shifting that equation.

CircuitPython's development is spearheaded by Scott Shawcroft, of the open-source hardware company Adafruit Industries. (Adafruit's CEO, Limor Fried, is a member of IEEE Spectrum's editorial advisory board, but she had no involvement in the preparation of this article.) "[Adafruit's] audience is people who have never programmed in their lives," says Shawcroft, explaining that CircuitPython makes it easy to get a simple project running. "I love folks just being able to jump right in." Shawcroft says he took an interest in programming in his teens as "part of the first generation that got into programming through the Web.

Shawcroft went on to intern at Creative Commons and Google while obtaining a computer engineering degree, and he joined the Google Maps team in 2009 for a six-year stint. He left in 2015 to launch a drone flight-controller company.

"I made a small production run in 2016, and like 10 people bought it," Shawcroft says, chuckling. Shawcroft came to the attention of Adafruit's creative director, Phillip Torrone, by participating in the company's weekly live video series "Show and Tell," which invites people to share their projects. "Eventually I said on one, 'I need a job!'" he says. Torrone contacted Shawcroft about porting the then two-year-old MicroPython, a leaner version of Python developed by physicist Damien George, to a particular microcontroller.

"I hadn't heard of MicroPython, but I was instantly sold on the idea of putting Python on hardware," Shawcroft says. "Limor said it would take about three weeks, but I did it in half that time because I couldn't put it down." Adafruit agreed to set Shawcroft up with enough work to keep busy full time, and he was only to work on MicroPython. So George started receiving a lot of code submissions from Adafruit, and he had "some apprehension about us coming in and changing things," says Shawcroft.

In talking with George about technical considerations, Adafruit realized that its perspective on the future of the language differed from his.

For those interested in contributing to a language like CircuitPython, Shawcroft says the key is practice. "Write a lot of code, and participate in communities like Adafruit as much as possible," he says. "I used to be one of those people who said you have to love it, and that's not fair. If you love it, it's just easier to want to practice."

—JULIANNE PEPITONE.



## 4 Inventions by Young Indian Geniuses This Year

### ***'Goggles for the Blind'***

Anang Tadar, a Class XI student from Arunachal Pradesh, has developed a pair of glasses to help the visually-impaired navigate "hands-free". Tadar's goggles, referred to as G4B, use echolocation technology – which mimics the way bats sense their surroundings – to alert visually-impaired wearers to objects within 2 metres of its field view.



### ***'World's Smallest Satellite'***

Rifath Sharook, an 18-year-old from Karur in Tamil Nadu, scripted history in June after NASA sent a 3D-printed satellite he helped build into space. The 'KalamSat', named after APJ Abdul Kalam, is the world's smallest satellite – with a weight of 64grams.



### ***'Bee Saver Bot'***

Twelve-year-old Kavya Vignesh hopes to save bees from going extinct. The Delhi girl and her team built a bee saver bot, nicknamed 'Light-night McQueen', on the Lego Mindstorms EV3 robotics kit.



### ***'Skin Patch to Detect Silent Heart Attacks'***

Akash Manoj, a Class X student from Tamil Nadu, has developed a skin patch that can detect 'silent heart attacks'. His skin patch, that can be attached to the ear or the wrist, will release a 'positive' electrical impulse, which will attract the negatively charged protein released by the heart to signal a heart attack



# His story at a glance

Mr. Shiva Ayyadurai was born on December 2, 1963, in Bombay, India, to a Hindu Tamil family. He moved along with his family to the United States when he was seven.

He grew up to be a good student and studied computer programming at a special summer program at the Courant Institute of Mathematical Sciences of New York University (NYU).

He attended Livingston High School in Livingston, New Jersey. While studying there he also volunteered at the University of Medicine and Dentistry of New Jersey (UMDNJ).



One of his supervisors there, Dr. Leslie P. Michelson, recognized his abilities and challenged him to recreate an electronic system replicating the conventional paper-based communication system.

Ayyadurai, just 14 years old at that time, envisioned a system to quickly and easily send digital messages. He began his project by performing a thorough study of the UMDNJ's paper-based mail system which was the same as that used in offices and organizations around the world.

Then he proceeded to build an electronic mail system that incorporated a set of Integrated System Components in addition to the functional parts of the paper mail system to create a highly-reliable and easy to use mail system.

He called this system "EMAIL" and applied for a copyright which he received in 1982. He was 18 years old at that time.

He pursued his undergraduate degree in electrical engineering and computer science from the Massachusetts Institute of Technology (MIT) and earned a master's degree in visual studies from the MIT Media Laboratory on scientific visualization. He also received another master's degree in mechanical engineering, also from MIT.

## Major Works

At the age of 14, he created the world's first email system for which he was recognized by the Westinghouse Science Talent Search. He developed the electronic version of the paper-based interoffice mail system then in use at the University of Medicine and Dentistry of New Jersey where he volunteered as a high school student.

## Philanthropic Works

He supports several arts and non-profit organizations such as the Guggenheim Museum, Very Special Arts, National Public Radio and the National Geographic Society. He also supports Shanthi Foundation, which raises money to provide scholarships for education of orphaned girls.

## Awards & Achievements

In 1981, Shiva Ayyadurai was awarded an Honors Group award for "The Software Design, Development and Implementation of a High-Reliability Network-Wide Electronic Mail System."