



Vision of the Department

To be recognized as a Centre of Excellence in the field of Computer Engineering where learners are nurtured in scholarly environment to evolve into competent Computer Engineering professionals to benefit society

Mission of the Department

1. Evolve a curriculum which emphasizes on strong engineering fundamentals with the flexibility to choose advanced courses of interest and gain exposure to tools and techniques in Computer Engineering.
2. Encourage a teaching-learning process in which highly competent faculty share a symbiotic association with the institutes of repute.
3. Facilitate creation and dissemination of knowledge through a digitally-enabled learning environment.
4. Develop academic and infrastructural facilities with modern equipment and other learning resources and encourage reciprocal sharing with other institutes through networking.
5. Establish a centre of excellence to enhance academia – industry partnership and work on collaborative projects.

Programme Educational Objectives (PEO)

1. To enable the pursuit of knowledge in the field of Computer Engineering and contribute to the profession and employability of the students.
2. To engage in research, generate the employment through entrepreneurship and work effectively in multidisciplinary environment.
3. To understand the human, social, ethical and environmental context of their profession and contribute positively to the needs of individuals and society at large.

PROF. DR. SACHIN BOJEWAR

HEAD OF DEPARTMENT, COMPUTER ENGINEERING

Hello Everyone,

At VIT, we are preparing to become a global citizen, acquire the latest technical and cultural skills, and become a leader in each field in the training environment.

VIT is ahead of the competition and takes every step to provide students with the best technical expertise using best practices on campus full of education, affection and fun.

Education for enlightenment, not just for employment-it is at the core of our belief. Therefore, we provide students with modern technical knowledge that blends with traditional Indian values.

I am happy to inform many of the students have actively participated in Smart India Hackathon 2022 and are short listed for the final round. Department also planned 2 days workshop on IOT in collaborating with Grok Learning aiming to give faculty as well as students feel of what is happening in the real world. Department always give importance to practical and hands on practice of engineering knowledge.

WHAT'S INSIDE

Workshop on IOT

Department Staff

- PROF. PRAKASH PARMAR
- PROF. AMIT AYLANI

Student Talk

- Vaishnavi Patil

Departmental Updates

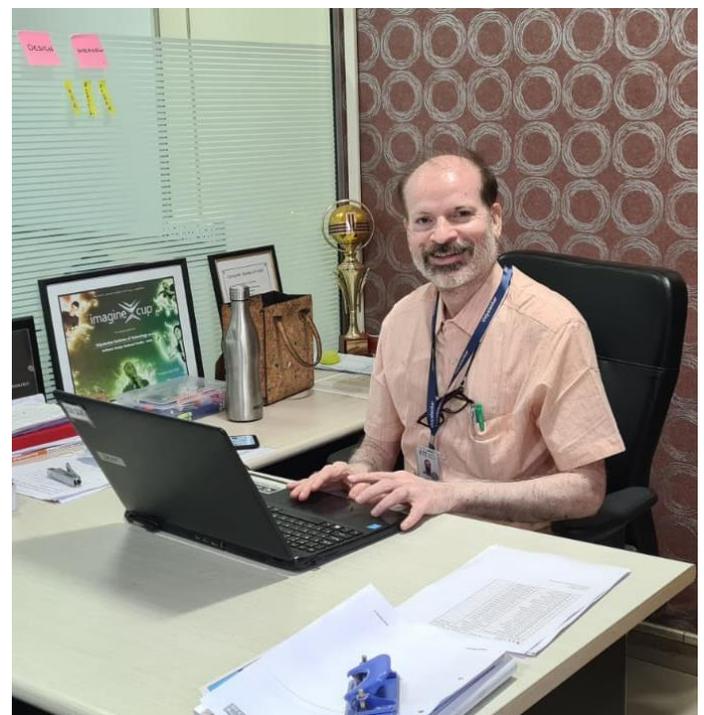
Alumnus Talk

- Shweta Mahajan
- Kalpak Tole

Internship Opportunities
AWS Initiate India

How Alan Turing and His Test
Became AI Legend

Student Article: Dishant Kumar



“ If you think that the internet has changed your life, think again. The Internet of Things is about to change it all over again! — Brendan O'Brien ”

2-Days Hands-on IoT Applied Learning Workshop



DATE: 9th and 10th June, 2022
SPEAKER: Dr. Pankaj Borkar

The department of Computer Engineering, Vidyalankar Institute of Technology in association with Grok Learning Pvt. Ltd. organized 2-Days Hands-on IoT Applied Learning Workshop. The speaker of the event was Mr. Nitin Komawar Director of Grok Learning Pvt. Ltd. The session began with an introductory note by Prof. Suvarna Bhat. Then Dr. Sachin Bojewar Head of Computer Engineering Department, VIT explained the need of the hour to get acquainted with this domain and how this really will be a sector that will be quintessential soon. Day 1 was at VIT campus in M312 Lab, Mr. Nitin Komawar introduced Grok IoT platform, and discussed how to build an IoT application on it. Speaker and his team discussed various sensors like motion, temperature, moisture, and their real-time application. They demonstrated how to build a Home Security using a Camera on their Grok IoT platform. Discussed how to use Circuit Designer IDE and write code for the same. Some of the participants modified it by adding a buzzer to the same. Day 2 was at Grok Learning Pvt. Ltd., Sion. Speaker and his team demonstrated how they have built different applications on Grok IoT Platform like Smart Agriculture, Hydroponics, Smart Door Lock, Smart Fan, Smart ink Mixer, and Smart hand Sanitizer Dispenser. They also demonstrated how to use a 3-D Printer to build a prototype model

VIT Vidyalankar Institute of Technology
Accredited A+ by NAAC

GROK LEARNING

Vidyalankar Institute of Technology's Department of Computer Engineering in association with Grok Pvt. Ltd. presents

2 Days Hands-On IoT Applied Learning Workshop
Help students to become Industry-Ready.

9TH & 10TH JUNE 2022, VIT CAMPUS

10 AM TO 1 PM

Build IoT Solutions for different Industry Domains

REGISTER WITH US
(REGISTRATIONS OPEN TILL 7TH JUNE, 2022)

Department Staff

PROF. PRAKASH PARMAR
ASSISTANT PROFESSOR



EDUCATION QUALIFICATION:
PURSUING PhD

WORKING EXPERIENCE:
10 YEARS

AREA OF SPECIALIZATION:
DATA SCIENCE
MACHINE LEARNING
DEEP LEARNING

PROF. AMIT AYLANI
ASSISTANT PROFESSOR



EDUCATION QUALIFICATION:
M.E. Computer Engineering

WORKING EXPERIENCE:
7 YEARS

AREA OF SPECIALIZATION:
UI/UX
NETWORKING
WEB DEVELOPMENT



My teacher gave me the best gift of all: Believing in me! –
Heidi McDonald



Student's Speak

Vaishnavi Patil

Coming from an environment of a diploma college, which you could call a small pond, it was daunting for me to take the leap into degree college as a direct second-year student. A new journey, vastly contrasting surroundings can be unsettling for even the best. With the advent of the Covid-19 lockdown, online teaching was the new normal. But VIT has excelled in factoring a smooth transition into the vast world of engineering. The faculty and students were both welcoming and warm. The quality and method of teaching by the CMPN faculty is unconventional as well as effective.

VIT has truly been a multi-faceted institute, as they put equal emphasis on cultural and extracurricular activities as academics. By organizing online events such as Friday Paathshaala, Sport it Up and offline events such as VEMPS, Just Jams, and Yoga Day, they truly ensure the all-round development of their students. I feel truly grateful to be a part of such an esteemed institution.



Departmental Updates

1. Prof. Ravindra Sangle published paper Multi Object Detection using Gaussian Mixture Model with Convolved Moving Window Architecture Integrated by Kalman Filter for Background Subtraction Method in International Journal of Mechanical Engineering ISSN: 0974-5823 in June 2022.
2. Gravit Hingad , Shreyas Suresh , Mahesh Pathare , Amit Nerurkar published paper Impact of Social Commerce on Consumer Buying Behaviour in India in INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY ISSN:2278-0181 in April 2022.

Know an Alumnus

Shweta Mahajan

Graduating Batch, 2017

Software Engineer- Draftkings, USA

My journey started in 2014, I was a small-town girl when I took admission in Vidyalankar and I can say that VIT provided wings to my dreams. The campus, the professors and the fellow students, they boosted my confidence and helped me become what I am today. The best thing about my journey at VIT were the professors, their acumen in the subjects and the way they treated me.

It made me feel very confident in whatever I did. Today I've successfully established myself as a Software Engineer working for a Leading Gaming Company in United States and VIT has played a major role in shaping my career. It's always nostalgic whenever I visit Vidyalankar campus or speak to any of the professors. I'm especially thankful to Amit Nerurkar Sir, Dr. Umesh Kulkarni Sir, Sanjeev Dwivedi Sir, Ravindra Sangle Sir, Prita Patil Ma'am, Sachin Deshpande Sir, Amit Dhanwani Sir and all the faculty members; who pushed me harder to achieve my goal and at the same time gave all the support in any means whenever I needed.

I always feel very proud to be the part of Vidyalankar family. Thanks to VIT!



“ Success is not the key to happiness. Happiness is the key to success. If you love what you are doing, you will be successful. -Albert Schweitzer ”

Know an Alumnus

" Don't try to be perfect. Just try to be better than you were yesterday!"

Hi, this is Kalpak Sanjay Tole, an alumnus of Vidyalkar Institute of Technology, Mumbai; graduated in the year of 2020 as a Computer Engineer. Technology has always been my passion and a dream to make it as a source of fuel for my career. From a young age I knew I wanted to be an engineer, not only because I was inspired by my relatives but also since I had an itch of creating and crafting things and getting satisfaction out of it. That's what an engineer does; and when I look back, I realize that VIT has been totally the right choice for me!



Kalpak Tole

As I said I have a craving for deep-diving into technology and what better branch than CMPN to explore the field. I remember when I had just entered Semester III, I saw Prof. Rugved Deolekar shouting at students to wear their ID Cards. But once we got to experience his skills and fluency on subjects like DSA and AOA, we realized that all this discipline was beneficial for us, not only during our college times but also for our future. In FE, my senior and now good friend Akshay Dangare introduced us to a committee called CSI. Interested by their plan of conducting various technical workshops and seminars during the entire First Year, I took CSI's membership. Later when I came to SE, I got the chance of joining as a workforce member in the Tech Team of CSI and became a part of Tech Team of another committee called CESA. Working under a part of a team, that too a technical team under the guidance of Prof. Amit Nerurkar, Prof. Mohini, Prof. Suja Jayachandran and Prof. Divya Surve was an experience I will remember throughout! Later when I entered my third year of engineering, I got the biggest opportunity - I became the Chairperson of CESA - our own Computer Department's committee! I got the chance of looking up close into how a committee works internally and how things are managed behind the scenes. I got the chance of drafting publicity messages, doing face to face publicity by going into various classrooms, selecting venues for workshops, managing permissions by interacting with the higher authorities and many such opportunities. And then came a time where I got to conduct a workshop on 3D Animation, all by myself! From attending workshops in Semester, I, to conducting them in Semester V, it was an amazing journey - like a dream come true; and all of this was possible due to the constant efforts by the Computer Department!

Just before Semester VII began, we had an opportunity to attempt the TCS Digital test directly due to the premium status of VIT. I gave the test, got selected for the interview; gave the interview and even got an offer from TCS! The Computer Department and the Placement Cell were so very helpful during these crucial times. Semester VII and VIII are the most significant semesters as we have a major and necessary task of "BE Project". But luckily, I had the guidance of Prof. Kavita Shirsat and it made us cruise through all the hardships faced during those times.

Last but not the least, I would like to thank all the professors as well as the nonworking staff of my Computer Department for molding me into a human being whom I am proud of! I have so many happy memories of my college and my engineering journey that I always think of even today, that put a smile on my face. I always loved to come to VIT and henceforth also will take out time to visit my college and remember the good old days! As I always say, it would never be #OneLastTime , but always be #OneMoreTime !

“

Always bear in mind that your own resolution to succeed is more important than any one thing.

Abraham Lincoln

”

Internship Opportunities workshop



DATE: June 10th, 2022
SPEAKER: Mr. Vinit Jain

Department of Computer Engineering organized a seminar focusing on the internship opportunities. The total no. of students registered was 145 including CMPN, INFT, EXTC.

The speaker of the event was Mr. Vinit Jain, CEO & founder Antennae Ventures.

The event began the importance of project & internship. He further explained the benefits of coding and improve your programming skills. He will share upcoming internship JD in various area.

After the wonderful confabulation, the session was opened to the audience to clear their queries and Mr. Jain patiently addressed every question.

By the end of the session the students had a good basic idea about the internship and startups. The examples the speaker gave were very relatable and easy to understand. The seminar was an interactive and motivational session.

NBA Accredited

Department of computer engineering and department of information technology is accredited by NBA (National Board of Accreditation) for three years.



AWS Initiate India



Date: 29th June 2022

The department of Computer Engineering, Vidyalankar Institute of Technology deputed Prof. Suja Jayachandran and Prof. Divya Surve to attend AWS Initiate India Event in Taj Lands' End, Mumbai.

Agenda of the event was Empowering Organizations to build India of Tomorrow. It had two tracks -Government Track and Education Track. The Keynote speaker was Smt. Ashwini Bhide I.A.S. Additional Municipal Commissioner, BMC. She discussed how AWS empowered organizations. Then the discussion was on Demystifying Cloud-Breaking Down Innovation Barriers in Government with the cloud.

Post Lunch in Education Track, Mr. Amit Nevatia, Education to Workforce Lead, AWS discussed various opportunities of AWS like Training and upskilling faculty, staff and students AWS educate, AWS training and certification, AWS academy, and NEP Accelerate Program (NEPAP). He also discussed AWS DeepRacer Student League-India 2022. The next speaker was Mr. Ameya Vanjari, Head of Technology & Innovation at Tata Strive has discussed different courses offered in educational organizations. Panel discussion was on how to use technology to drive impact and innovation. The next discussion was on Personalized Adaptive Assistant: A real-time teaching-learning support by Ms. Sucheta Shivakumar and Mr. Amar Deo from The Learning Mates. They discussed how Learning Mates helps teachers to monitor learners and provide them with an adaptive learning environment.

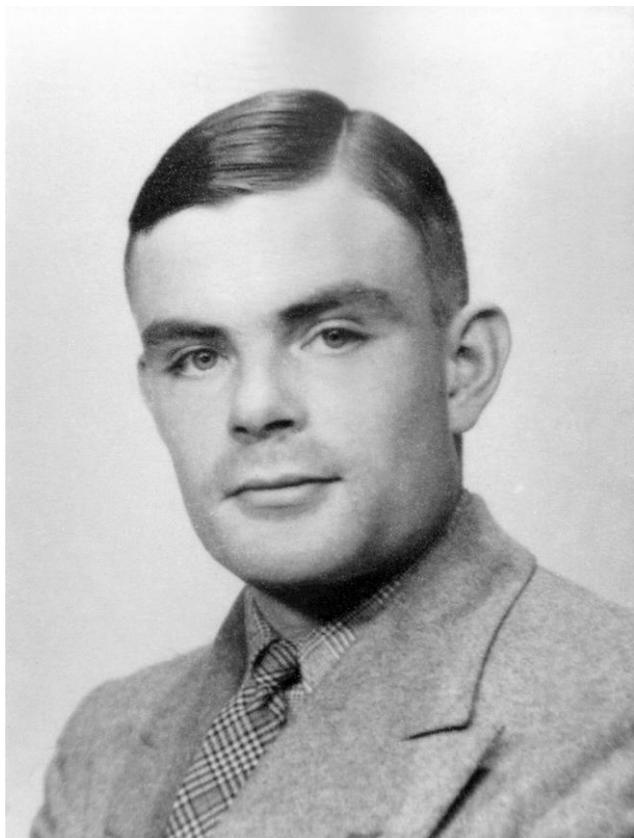
“

Sometimes it is the people no one can imagine anything of who do the things no one can imagine.

— Alan Turing

”

How Alan Turing and His Test Became AI Legend



None of the chatbots have succeeded. The best performer, a conversational chatbot called Mistuku, has only achieved a rating of "33-percent human." But when I went online to chat with her, I was impressed by her natural-language responses and deep knowledge (albeit probably too deep for a typically dopey human).

And when I asked her if a chatbot will ever pass the Turing Test, she had the perfect answer:

"You be the judge of that" test. Simple in theory, but nearly impossible in practice.

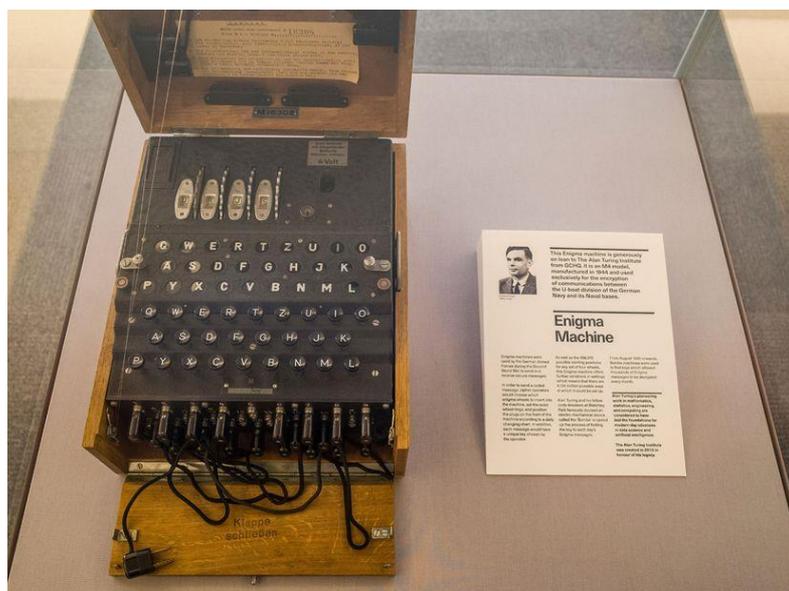
Source:
<https://electronics.howstuffworks.com/future-tech/alan-turing-test.htm>

The Turing Test is legendary in the field of artificial intelligence. First proposed by the visionary British mathematician Alan Turing in a landmark 1950 paper, the test provides a practical (and pretty fun) way to determine if a computer has achieved human levels of intelligence. Turing called it "the imitation game." If a computer — through a text-only chat — can convince a human that it's a real person, then it passes Will a Computer Ever Pass the Turing Test?

When the Turing Test was first published in 1950, Turing himself was confident that "intelligent machinery" (as he called it) would be able to win the imitation game within 50 to 100 years. Will his predictions come true?

We already have superintelligent computers capable of outwitting the smartest players in other types of games. In 1997, IBM's Deep Blue defeated the reigning chess champion Garry Kasparov, and Watson beat the record-breaking "Jeopardy!" champion Ken Jennings in 2011.

But the imitation game raises the bar high on artificial intelligence and no computer has come close to convincing ordinary humans that it's one of them. At least not yet. An annual contest called the Loebner Prize conducts its own Turing Tests on the top chatbots to see if the latest AI software can convince a panel of judges that it's more human than its human competitors.



An enigma machine is displayed outside the Alan Turing Institute entrance inside the British Library, London.



Within a few decades, machine intelligence will surpass human intelligence, leading to The Singularity — technological change so rapid and profound it represents a rupture in the fabric of human history.

— Ray Kurzweil



Student Article: AI writes Poems/Songs

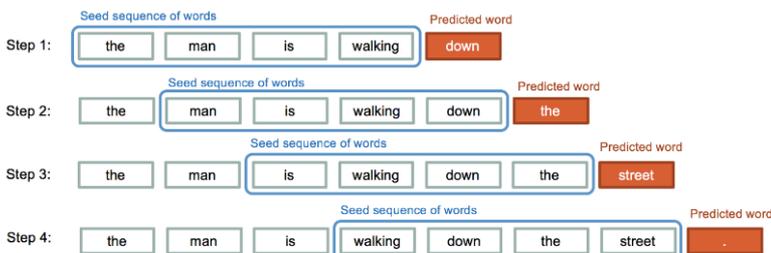
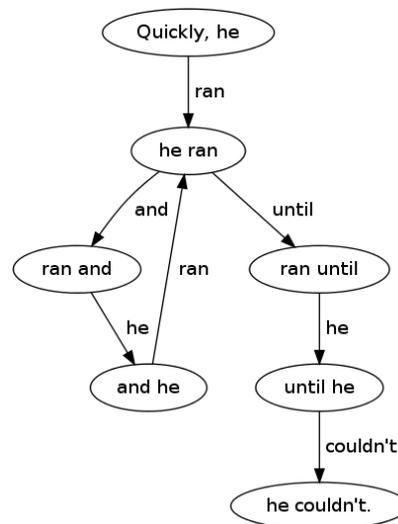
Ever wondered how Artificial Intelligence would be able to write poetries and songs? Well, with enormous amount of progress in language-generating AIs over the past couple of years, AI is now capable of writing astoundingly convincing essays as well as poems, resultantly being a tool to be used by 5th graders for their school homework!

A team of researchers from Microsoft and Kyoto University developed a poet AI good enough to fool online judges. It's the latest step towards artificial intelligence that can create believable, human-passing language, and, man, it seems like a big one. Google's new AI tool, Verse by Verse, allows users to compose a poem using "suggestions" from classic American poets. OpenAI's GPT-3, for example, is a language generator that's been trained on 570 gigabytes of text. The AI generates these suggestions based on what it's gleaned from reading the poets' respective oeuvres. I.e., the program uses machine-learning algorithms to identify the language patterns of a particular poet's work, then applies those to text it generates as the suggestions. Can we try creating a simple AI based software to write poems? Certainly, we can! Our algorithm's motive would be to consider what words typically appear together to establish rules on rhyming and meter/length. This software would be capable of generating poem stanzas with rhyming schemes and a "meant to be meaningful" sequence of words.

It analyses the words and the probability of occurrence of two consecutive words. The generation is randomized and based on the probability of each word. This can be achieved using markovify library in python. Another way of generating sentences is by using the modified version of Recurrent Neural Networks, i.e. the Long Short Term Memory (LSTM) networks, which are capable of learning long-term dependencies, for creating a Sequential model, to remember the previous 'n' inputs for prediction of next words in the sequence, hence providing us with the rhyming scheme, and poem-like sequence in a stanza.



Dishant Kumar TE-B



Apart from this simple way, with average results, pre-trained generative transformer models are currently being used, as mentioned before, about the GPT (generative Pre-trained Transformer), for generating human-like text by performing transfer-learning.

Let's do some research, and let's give it a try, our own AI poet. Thanks for giving it a read!

UPCOMING EVENTS

- CSI WILL HOST A NATIONAL CONFERENCE CYBERFRAT IN SEPTEMBER 2022
- DEPARTMENT WILL CLUSTER MENTOR WORKSHOP FOR A.Y. 2022-23 IN JULY 2022
- TOPPER'S FELCITATION WILL BE ORGAINZED IN AUGUST 2022
- ORIENTATION OF NEW SEMESTER WILL BE HOSTED IN JULY 2022

“Perfection is achieved not when there is nothing more to add, but rather when there is nothing more to take away.” – Antoine de Saint-Exupery

THE
EDITORIAL TEAM

PROF. AMIT K. NERURKAR

Chief Editor