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Oracle Projects for JAVA

PROF. DR. SACHIN BOJEWAR

HEAD OF DEPARTMENT, COMPUTER ENGINEERING

Hello Everyone,

I welcome all the understudies & their guardians to the Department of Computer Engineering. We are committed to giving not as it were the specialized instruction to our understudies but moreover the administration qualities through which they can make work to others.

Department is completely focused in grooming the students not only academically but also making them industry ready and for this many extra and co-curricular activities are conducted. In this semester DAB(Department Advisory Board) meeting was conducted whose members from industry and academics gave multiple inputs for improving our teaching learning process.

Like the last semester department organized audit course on Web development in collaboration with KidsGalaxy, for the upcoming semester the department is planning for Hands on Audit course on IOT in collaboration with Grok Technologies.

All our faculty members are focused on delivering the best content and we are focusing on going from Good to Great!



“The coming era of Artificial Intelligence will not be the era of war, but be the era of deep compassion, non-violence, and love.”
 -Amit Ray

WORKSHOP ON DID YOU GIT IT? by CSI-VIT

DATE: October 7th, 2021.
 SPEAKER: Andrea Griffiths

Ms. Andrea Griffiths, is a Senior Product Manager at GitHub, began the event by giving us a brief idea on the Hacktober Fest and moved on to discuss about Git. Git is a Distributed Version Control System and consists of various branches, it can handle everything from small scale to large projects with a lot of speed and efficiency despite being small. She then proceeded on the topic of Collaboration and GitHub. GitHub is the home for open source, it's a co-hosting platform for collaboration. She then elaborated on the three aspects GitHub concentrates on - Building the Technology Platform, Nurturing the Community for Developers and Providing Access to Community Opportunity. Further, she spoke about the Key components of GitHub – Commits, Issues, Pull Requests and Releases. She also created a demo Repository for us to grasp in a better way. We then created a license for the project and learnt about the draft pull request.

Advancing to the top three points for not only the Hacktober Fest but also conventional collaboration:

GitHub CLI, GitHub Discussions, GitHub.Dev-
 Link: <https://youtu.be/ohzsC37bjCw>

Department Staff

PROF. AVINASH SHRIVAS
 ASSISTANT PROFESSOR



EDUCATION QUALIFICATION:
 PURSUING PhD

WORKING EXPERIENCE:
 25 YEARS

AREA OF SPECIALIZATION:
 OPERATING SYSTEMS
 DISTRIBUTED SYSTEMS
 ARTIFICIAL INTELLIGENCE
 MACHINE LEARNING

PROF. SNEHAL ANDHARE
 ASSISTANT PROFESSOR



EDUCATION QUALIFICATION:
 PURSUING PhD

WORKING EXPERIENCE:
 10 YEARS

AREA OF SPECIALIZATION:
 OPERATING SYSTEMS
 MOBILE COMMUNICATION
 WIRELESS SENSOR NETWORK



Only those who will risk going too far can possibly find out how far one can go.

-T.S Eliot



Student's Speak

Shivani Palve

I am grateful to the Vidyalkar Institute of Technology for the opportunity to express my appreciation. The 3 years were a high and low ride of assignments, exam pressure, vivas, and practical exams, all of which were made easier by the Computer Engineering Department's faculty members. Apart from the studies, the department also encourages students to participate in cultural and technical events and join committees like the Student Council, CSI-VIT, TEDxVIT. I want to thank Prof Amit Nerurkar for igniting interest in Artificial intelligence and soft computing. He taught us the theory behind how human behavior is mimicked by computers and gave us the necessary practical exposure with the help of real-world examples and use cases.

The department has always aided students in participating themselves in hackathons, competitions and interactive webinars. The department also tries to arrange a series of guest lectures by industry professionals and alumni.

Subjects like data structure and algorithms, advanced algorithms, cryptography, and system security forgive their students more practical knowledge about these concepts. VIT offers the best classrooms, labs, playground, clean washrooms, seminar hall, and gaming area for facilities. I would want to thank all the professors and staff at VIT for these incredible three years.



Departmental Updates

- Akshay Prabhu, Niranjana B, Chinmay Tiwari and Prof. Amit K. Nerurkar presented paper Title “Improving commercial success of music on streaming platforms using data science” in ICAC3-21 in November 2021.
- Dr. Umesh Kulkarni attended AICTE-Workshop on Universal Human Values in Higher Education (08-12 Nov 2021) and AICTE-Workshop on Examination Reforms (16th to 18th November 2021)
- Prof. Prakash Parmar conducted Guest Lecture on “Software Design & Modeling” in webinar series of IT Learning 2021 on 7th October 2021 at Sinhgad Institute.
- Prof. Suvarna Bhat presented paper titled Personality Recognition For Candidate Screening in 4th International Conference on Futuristic Trends in Networks and Computing Technologies.
- Prof. Swapnil Sonawane completed course on Introduction to Blockchain conducted by E & ICT Academy, Indian Institute of Technology Kanpur in October 2021.
- Prof. Amit K. Nerurkar completed two credit course on Research and Publication Ethics in November 2021.
- Department conducted DAB meeting in December 2021.
- Prof. Prita Patil got selected as the Primary Evaluator for the Toycathon-2021



The expert in anything was once a beginner.
– Helen Hayes



Know an Alumnus

Sneha Bodke

My name is Sneha Sudhakar Bodke, I graduated from Vidyalkar Institute of Technology (Affiliated with the University of Mumbai) in 2019 with a Bachelor of Engineering in Computer Engineering.

Four years of Engineering journey could not have been possible without the continuous support and motivation from the Computer Engineering Department. I feel proud of being a part of this department, as it not only inculcated good educational values but also helped in the overall development of my personality. When I entered the college during my first year of engineering, I was quite intimidated by the college environment and my peers, but soon Professors like Mr. Amit Nerurkar made us all feel at home, he taught us the Structured Programming Approach in Semester 2 in a very lucid manner, and along with that he also welcomed us wholeheartedly to be a part of the Computer Engineering Department. He exposed us to a plethora of co-curricular as well extracurricular opportunities that the department had to offer. Proactive participation in Computer Engineering Students' Association, a student body responsible for organizing educational workshops and seminars, helped me boost my confidence and instilled in me valuable leadership and communication skills. Along with co-curricular and extracurricular activities, I grabbed an opportunity to work with Professor Kavita Shirsat of the Computer Engineering Department for a final year engineering project. During the time that I spent while working with her, I was amazed by her energetic and goal-driven nature.



She assisted us in tackling and exploring computer science research topics in-depth, thereby helping us understand our mistakes and guiding us through project period. All the professors from Computer Engineering Department have always been kind and helpful, They made us feel so comfortable that they not only resolved our queries related to curriculum but also at times helped us if we were facing any personal issues.

The most remarkable highlight of my engineering journey was the TEDxVIT event, one of its kind, organized for the first time in our college in January 2018. When the event was finalized, our department took the initiative to make the event successful, along with professors from our department, we handled responsibilities like Sponsorship, Publicity, Event Management and managing the guest speakers of the event. Through our combined efforts and dedication, the event was so successful that its next iteration was held in January 2019 as well. This department nurtured me to become an independent responsible adult and the credit goes to all the professors and my peers of the Computer Engineering Department

“ Be dependent on yourself and know that courage has to be born within you. It takes time but you have to work for ”
 – Sudha Murthy

Webinar on CYBER-SECURITY by CESA



DATE: October 16th, 2021.
 SPEAKER: Mr. Parshwa Bhavsar

In India, cybersecurity is a booming industry. The demand for cyber security professionals has increased exponentially in recent years, and this trend is expected to continue for many coming years. There are several different roles as per your expertise and skills.

Parshwa Bhavsar who is one of the top security researchers in India, a bug bounty hunter and a certified ethical hacker.

Sir started by sharing how he got into this field and his experience in the field. He told the students how a day in life of a cybersecurity engineer looks like. He spoke about ethical hacking and types of hackers. He also explained the phases of ethical hacking in detail. He suggested a few extensions for browser which seemed helpful. Later he explained how the students can begin their cybersecurity journey by web application penetration testing. Later, he explained the skills required such as programming skills and problem-solving skills to become an ethical hacker along with advantages of ethical hacking. He told the participants about the job titles in the field and the best certifications one can get. The session ended after clearing few queries of the participants.

Link: <https://youtu.be/1SMp6puf120>

Use of Robotic Process Automation (RPA)

Like AI and Machine Learning, Robotic Process Automation, or RPA, is another technology that is automating jobs. RPA is the use of software to automate business processes such as interpreting applications, processing transactions, dealing with data, and even replying to emails. RPA automates repetitive tasks that people used to do.

Although Forrester Research estimates RPA automation will threaten the livelihood of 230 million or more knowledge workers or approximately 9 percent of the global workforce, RPA is also creating new jobs while altering existing jobs. McKinsey finds that less than 5 percent of occupations can be totally automated, but about 60 percent can be partially automated.

For you as an IT professional looking to the future and trying to understand latest technology trends, RPA offers plenty of career opportunities, including developer, project manager, business analyst, solution architect and consultant. And these jobs pay well. An RPA developer can earn over ₹534K per year - making it the next technology trend you must keep a watch on



<https://www.simplilearn.com/top-technology-trends-and-jobs-article>

“ Security used to be an inconvenience sometimes, but now it’s a necessity all the time. ”
 -Martina Navratilova

WORKSHOP ON REACT.JS BY CESA



DATE: October 25th, 2021.
 SPEAKER: Mr. Praveen Kumar Purushothaman

The event started with Mr. Praveen Kumar sharing his success story and he also mentioned his hobbies and liking and disliking in the field in a humorous manner. Starting with the workshop he introduced the audience with a website which had various fields of Computer Science and their Roadmap. He showed the students the roadmap for Full-Stack developers and gave a clearer idea of React JS. He introduced the audience with his own website where he mentioned the details of which tools, extensions and software he uses. Sir then demonstrated the code for creating Registration Form using React and Bootstrap. He also showed his own created repositories on GitHub. Sir made the webinar very easy and understandable for the students as he showed the program step by step along with proper code and software with the best versions to be used. He also made interesting changes in fonts and background color. He shared with the audience in the session some important tips regarding the versions of software used in the YouTube Live chat. Along with React the speaker also gave a little bit of an idea about CSS and MySQL. Sir also answered many doubts and queries asked by the audience throughout the session.

Link: <https://youtu.be/ByLcKW-WY8A>

Huh, What! What Name? by CSI

DATE: October 19th, 2021.
 SPEAKER: CSI-VIT team members

The department of Computer Engineering and CSI-VIT organized an interactive event on a popular gaming software ‘Codenames’ sponsored by SYBGEN. The event was conducted on Microsoft Teams.

·The event began at 5:00 pm with the anchor Ishita Shah briefing the contestants with the rules & regulations of the game with an onscreen demonstration.

·The game as explained consisted of 2 teams competing against each other in an array of breakout rooms until only the top two teams competed for the title of the ‘winner’.

In each room, every team had a ‘spymaster’ whose role consisted of providing clues to his/her teammates who undertook the role of ‘operatives’. The team who first guessed all the allotted words qualified and proceeded to the further stages.



“

All our dreams can come true, if we have the courage to pursue them.
-Walt Disney

”

Student Article: The transition towards a Typed JavaScript by Akshay Prabhu

The world of programming has always been fast paced with languages evolving. However, an increasingly popular trend has been a shift towards preferring statically typed languages. Take Python, incredibly popular for its ease of learning thanks to being duck typed, has added support for type hints. Introduced in PEP 484 back in September 2014, it allows optional typing hinting for Python. While the default implementation does not enforce these type hints, it is certainly a step towards making programming at scale an easier task.

This is significantly more pronounced in the JavaScript ecosystem. TypeScript is a strongly typed programming language that is a superset of JavaScript and can be compiled into JavaScript. It has seen significant adoption across the industry. Originally released by Microsoft in 2012, it has seen several iterations, adding many powerful features including being able to prevent a variable from being assigned a “null” value. Several projects and libraries have adopted it including the Deno project, a NodeJS alternative that treats TypeScript as a first class citizen. There are several advantages to this: To start with, TypeScript can catch mistakes as you program and augments the intellisense of existing code editors. This can improve productivity. For companies working at a scale with hundreds of developers across several teams, TypeScript can be a boon as it makes it simpler for a dev to go through the code and identify the shape of objects and functions. Several companies including but not limited to Microsoft, Google, Slack and Twitch have been using TypeScript in their codebases. In the Stack Overflow 2020 Developer survey, TypeScript beat Python, and was voted to be the second most loved programming language, right after Rust.

For those sold on the concept, but on the edge, TypeScript is fully compatible with JavaScript code, this means you can add TypeScript to your codebase gradually instead of having to completely convert your codebase to TypeScript.



Akshay Prabhu
BE-A

As a result you can even use packages from say NPM which currently do not have types without breaking compatibility. Furthermore, you can customize how strictly you want the transpiler to enforce certain rules by managing a tsconfig file. As over time your codebase switches, you can increase the enforcement to be more strict. For those concerned about tooling, there has been wide support in most associated tooling, from eslint’s linting to webpack bundling. Compile targets can also be modified based on the preferences. This includes being able to compile to pre ES6 versions of JavaScript to maintain support for legacy browser versions.

Oracle Projects focused on facilitating innovation for Java

1. Valhalla, focused on introducing value types to Java
2. Panama, which is about updating the form function for Java
3. Loom, which focuses on scaling Java
4. Amber, which is focused on finding ways to simplify the language
5. Metropolis, which is trying to see how much of the JVM can be written in Java so that both JVM and Java can evolve faster

UPCOMING EVENTS

- IDEA PRESENTATION COMPETITION WILL BE CONDUCTED IN FEBRUARY 2022.
- DEPARTMENT WILL CONDUCT AUDIT COURSE ON IOT FOR TE IN JANUARY 2022
- HOST 24 HOURS HACKATHON IN MARCH 2022
- CSI WILL HOST A NATIONAL CONFERENCE CYBERFRAT IN March 2022

“Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience, and the passion to reach for the stars to change the world.”

-Harriet Tubman

THE
EDITORIAL TEAM

PROF. AMIT K. NERURKAR

Chief Editor