

### ZEAL POLYTECHNIC

DEPARTMENT OF COMPUTER ENGINEERING



# NEWS LETTER

2020-2021 1st issue



achievements, moments and much more...



### **Principal's Message**



DR. CHANDRAKANT N. KULKARNI

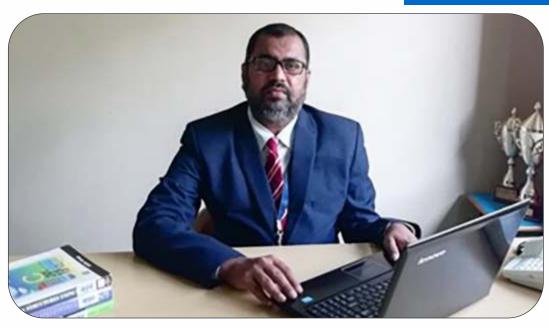
Principal, Zeal Polytechnic, Pune

We provide best platforms to budding engineers to acquire technical knowledge, motor skills and soft skills which are utmost demands of the industry. Uniqueness of our institute is a caring, nurturing culture that recognizes the various aspects of each student and encourages them to bloom to their fullest with confidence.

We are also committed to very good quality of teaching-learning process with having maintained high grade discipline among the staff and students and to achieve sky-scraping point superiority in academic by maintaining a conductive atmosphere for studies, state-of art laboratories communication center and digital library. MOUs have been signed with reputed organization to impart cutting edge technologies through extensive courses.

In another view, we aim at development of our student at different levels by the proper encouragement, guidance, support and generation of in-house recourses for sports, cultural, yoga, meditation etc followed by giving them a confidence to feel free at home. These efforts have resulted in more placements and we are keen to argument it further. We are quite self-assured for the molding and nurturing of our students as a young, bright, dynamic, talented & professional technocrats and a responsible gentle citizen by raising the our actions to at high quality technical education.

### **H.O.D.'s Message**



**PROF. SHAKIL TAMBOLI** 

BE, ME (Computer) Zeal Polytechnic, Pune

Welcome to the vibrant and dynamic Department of Computer Engineering at Zeal Polytechnic, Pune! In an era where technology evolves at an unprecedented pace, our department takes pride in nurturing the next generation of innovative minds in the realm of computing. We are committed to providing a robust academic foundation combined with practical exposure, enabling our students to thrive in the ever-changing tech landscape.

At Zeal Polytechnic, our distinguished faculty members bring a wealth of industry experience and academic expertise to the classroom. We believe in cultivating an environment that encourages curiosity, critical thinking, and creativity among our students. Our focus extends beyond traditional learning methods, emphasizing hands-on experiences through state-of-the-art laboratories and collaborative projects.

The field of Computer Engineering is at the forefront of innovation, and our curriculum is meticulously crafted to stay abreast of the latest advancements. We aim not only to impart technical knowledge but also to instill ethical values and a sense of responsibility in our students, empowering them to become socially conscious professionals.

Our department is dedicated to fostering an inclusive community where diversity is celebrated, ideas are exchanged freely, and each individual's potential is recognized and nurtured. We encourage our students to engage in extracurricular activities, research endeavors, and industry collaborations to broaden their horizons and prepare for the challenges of tomorrow.

As the Head of Department, I invite you to explore the multitude of opportunities available within our department. Whether you aspire to develop groundbreaking software, delve into cybersecurity, explore artificial intelligence, or innovate in any other computing domain, Zeal Polytechnic is the ideal platform to embark on your journey towards success.

I extend my best wishes to all our students and encourage them to dream big, strive for excellence, and make a meaningful impact in the world of Computer Engineering.

### **About Zeal Polytechnic, Pune.**

of Pune, stands as a beacon of excellence in technical education. Established with a vision to nurture budding talents and shape them into skilled professionals, our institution has been a cornerstone of learning and innovation since its inception. At Zeal Polytechnic, we take pride in our commitment to academic rigor and innovation. Our comprehensive range of diploma courses in engineering and technology is designed to meet industry standards, blending theoretical knowledge with hands-on practical experiences. Our curriculum is constantly updated to keep pace with the rapidly evolving technological landscape, ensuring our students are wellprepared for the challenges of the future.

The institution has a dedicated placement cell that works tirelessly to connect students with reputable companies for internships and placements. We provide career guidance and counseling, empowering students to make informed decisions and excel in their chosen career paths.

At Zeal Polytechnic, we strive to create an environment that fosters innovation. creativity, and ethical values, preparing our students to become leaders and contributors to society.



### **About Computer Department**

The Computer Engineering Department at Zeal Polytechnic, Pune, is at the forefront of technological innovation, shaping future leaders in the dynamic field of computing.

Our department is dedicated to providing a comprehensive education that blends theoretical foundations with hands-on practical experience. The curriculum is thoughtfully crafted to align with industry standards and emerging technological trends, ensuring our students are well-equipped to tackle real-world challenges.

Our faculty comprises experienced professionals and educators who bring a wealth of knowledge and industry insights to the classroom. We foster a culture of continuous learning and engagement, encouraging students to interact with industry experts through seminars, workshops, and collaborative projects.

The department boasts state-of-the-art laboratories and advanced computing facilities that provide an ideal environment for experimentation and innovation. These resources enable students to delve into various domains such as software development, networking, cybersecurity, artificial intelligence, and more.

We encourage a spirit of inquiry and innovation among our students, supporting research initiatives and projects that drive technological advancements. Students have opportunities to participate in research activities, allowing them to explore new frontiers in the world of computer engineering.

The department's placement cell is committed to facilitating internships and placements for students in esteemed organizations. Additionally, we offer career guidance and counseling to empower students in making informed decisions about their professional journeys.

Beyond academics, the department encourages students to participate in extracurricular activities, technical clubs, hackathons, and seminars. This holistic approach aims to develop well-rounded individuals with a passion for innovation and a strong foundation in computer engineering.

Our alumni network comprises accomplished professionals who have made significant contributions in various industries. They remain an integral part of our community, offering guidance and opportunities to current students.

At the Computer Engineering Department of Zeal Polytechnic, we foster creativity, innovation, and excellence in the world of technology.



Create professionally competent and socially responsible engineers to work in global environment.



- 1. Implement diversified teaching learning process methodologies to meet growing requirements of industry and society. (Teaching Learning Process methodologies)
- 2. Demonstrate and involve students in the installation and troubleshooting of software and hardware systems using modern tools and methodologies. (Technical Competency)
- 3. Inculcate interest, team work and professional ethics among students. (Professional Ethics)
- 4. Facilitate interaction of students with society to identify innovative user friendly software and hardware solutions for the humankind.(Social Contribution)

#### **Program Educational Objectives (PEOs)**

PEO 1: Provide socially responsible, environment friendly solutions to Computer engineering related broad-based problems adapting professional ethics.

PEO 2: Adapt state-of-the-art Computer engineering broad-based technologies to work in multidisciplinary work environments.

PEO 3: Solve broad-based problems individually and as a team member communicating effectively in the world of work.

### **Program Specific Outcomes (PSOs)**

PSO 1: Computer Software and Hardware Usage: Use state-of-the-art technologies for operation and application of computer software and hardware.

PSO 2: Computer Engineering Maintenance: Maintain computer engineering related software and hardware systems.

### Guest lecture on project development and career opportunities

Project development involves the process of planning, organizing, executing, and closing the work of a team to achieve specific goals and meet specific success criteria. This process often includes identifying requirements, defining scope, allocating resources, managing stakeholders, and implementing strategies to deliver successful outcomes. Defining the project scope, objectives, and feasibility. Creating a roadmap, setting timelines, budgeting, and resource allocation. Carrying out the plan and managing team activities. Tracking progress, managing changes, and ensuring quality. Formalizing project completion, documenting outcomes, and assessing the overall success. A career in project development can lead to various roles across industries. Some common job titles in this field include Responsible for overseeing the entire project lifecycle, ensuring its successful completion within the defined constraints. Assists the project manager in administrative tasks, coordination, and communication among team members. Analyzes business processes, identifies areas for improvement, and contributes to project planning. Facilitates Agile methodologies, ensuring teams work efficiently and effectively.

Manages the development and launch of a product, working closely with cross-functional teams.

To excel in project development careers, it's essential to have skills in Effective communication is crucial for managing teams and stakeholders. Ability to allocate resources efficiently and manage timelines effectively. Projects often face unexpected challenges, and being able to adapt and solve problems is crucial. Depending on the industry, having domain-specific knowledge can be advantageous.

Sachin S Babu might have presented specific insights, case studies, or career perspectives on project development on October 29, 2021. Unfortunately, without the specific content, I can only provide general information. If you have more details or specific questions, I'd be happy to help further!



### **Expert Lecture on C++ by Mr. Ninad Tongay**

An expert lecture on C++ by someone like Mr. Ninad Tongay, who likely has extensive knowledge in programming and particularly in C++, might include the following topics.Deep dives into advanced features such as templates, lambda expressions, move semantics, and more.Exploring intricacies of the language and its modern applications.Strategies for writing efficient code in C++.Techniques for optimizing performance and memory management.Understanding various design patterns and their implementations in C++.Best practices for writing clean, maintainable, and scalable code.Overview of the latest C++ standards and any significant updates.Practical demonstrations or case studies showcasing how C++ is utilized in various industries like game development, finance, system programming, etc.Real-world examples to highlight the language's capabilities and strengths.Engaging sessions where participants can solve problems or work on coding exercises to apply the concepts learned.Q&A sessions to address specific queries or challenges faced by attendees.These lectures often cater to both beginners and experienced programmers, offering a deep understanding of C++ and its applications in various domains.



## Expert Lecture to induce knowledge on new emerging Cloud based Technology.

A cloud computing service is a service that provides computing resources on-demand over the Internet. Both Software as a Service (SaaS) and Infrastructure as a Service (IaaS) are well-established as cloud computing service models, with SaaS delivering a wide range of enterprise applications and IaaS delivering basic computing resources such as storage, networking, and hardware to customers. Introduction to cloud computing, its evolution, and its impact on various industries.IaaS, PaaS, SaaS, and their applications.

Discussions on recent advancements in cloud computing, such as serverless computing, edge computing, containerization (e.g., Kubernetes, Docker), and microservices architecture.Insight into emerging trends in cloud security, compliance, and governance.Understanding the significance of hybrid and multi-cloud strategies.Exploring how organizations can effectively manage and optimize resources across different cloud platforms.How cloud computing facilitates AI and machine learning applications.Use cases demonstrating the integration of AI/ML algorithms with cloud infrastructure.Leveraging cloud technologies for big data storage, processing, and analytics.Examples of scalable and cost-effective data solutions offered by cloud platforms.Practices for building and deploying applications specifically designed for cloud environments.

Importance of DevOps methodologies in cloud-native development. Showcasing successful case studies and real-world examples of companies implementing innovative cloud-based solutions. Discussions on the benefits, challenges, and lessons learned from these implementations. An expert lecture by Anil Gavandi or any expert in this field would likely delve into these areas, providing insights, trends, and practical knowledge about the rapidly evolving landscape of cloud-based technologies. These lectures often aim to equip attendees with a better understanding of how to leverage these technologies for business innovation and growth.

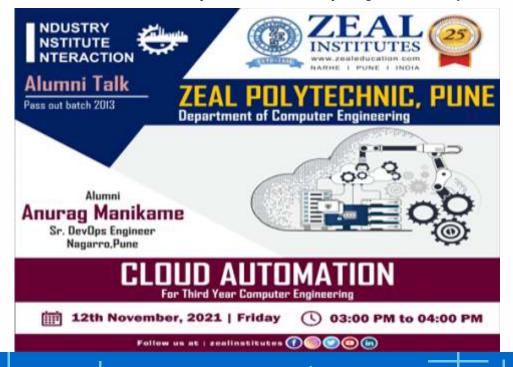


### Guest lecture on Cloud automation by Mr.Anurag manikkame

in an expert lecture on cloud automation by someone with that background

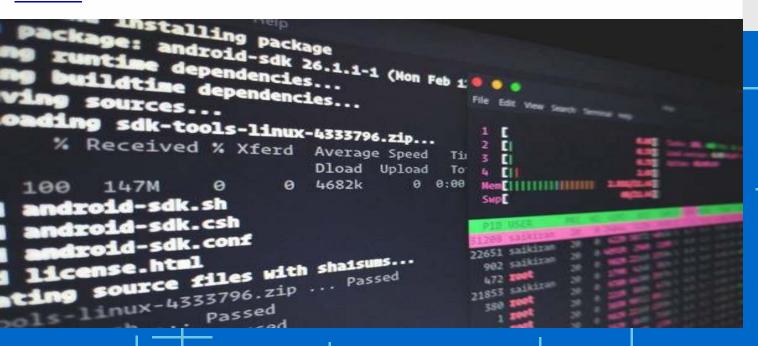
Explanation of what cloud automation entails and its significance in modern IT operations. Overview of the benefits of automating cloud infrastructure provisioning, configuration, and management. nfrastructure as Code (IaC)Introduction to IaC tools like Terraform, AWS CloudFormation, or Azure Resource Manager. Demonstrations or explanations of writing infrastructure code to provision and manage cloud resources. Discussions on tools like Ansible, Puppet, or Chef for configuration management in cloud environments. How these tools automate and maintain consistent configurations across various cloud instances. Understanding CI/CD pipelines and their role in automating software delivery. Integration of CI/CD tools like Jenkins, GitLab CI, or AWS Code Pipeline with cloud services. Exploring orchestration frameworks such as Kubernetes for container orchestration in the cloud. Using automation frameworks to streamline complex cloud workflows. Addressing how automation is used to enforce security policies and compliance standards in cloud environments.

Utilizing monitoring tools (e.g., Prometheus, Grafana, CloudWatch) for automated alerting and remediation in response to incidents.Implementing auto-scaling and self-healing mechanisms for cloud resources.Showcasing real-world case studies or examples of successful cloud automation implementations.Sharing best practices and lessons learned from deploying automation in cloud environments.An expert lecture on cloud automation by a seasoned DevOps Engineer like Anurag Manikkame would likely delve into these aspects, aiming to provide practical insights and strategies for effectively automating cloud infrastructure and operations. These lectures often focus on enabling attendees to optimize workflows, enhance efficiency, and improve reliability in cloud-based systems. track and detect security issues in the early stages of development



## Expert Lecture to induce and explore the knowledge on the basics of Client Side Scripting Language by pranit shriniwas Thakur

Mr. Pranit Shriniwas Thakur from PRANVI Computech, I can certainly outline the fundamental aspects that might be covered in an expert lecture on client-side scripting languages, which are used to enhance interactivity and functionality within web browsers. Explanation of client-side scripting and its role in web development. Differentiating client-side scripting from server-side scripting.Introduction to fundamental client-side scripting languages like JavaScript, HTML, and CSS.Understanding their roles in creating interactive web pages. Basics of JavaScript: variables, data types, operators, functions, and control structures (loops, conditions). How JavaScript interacts with HTML and CSS in web development. Exploring the Document Object Model (DOM) and its significance in client-side scripting. How JavaScript interacts with the DOM to dynamically manipulate web page content. Understanding how events work in web browsers and how JavaScript handles them. Creating interactive elements through event listeners and handlers. Introduction to Asynchronous JavaScript and XML (AJAX) for making asynchronous requests to servers. How AJAX improves user experience by fetching data without reloading the entire web page. Overview of popular JavaScript frameworks libraries like React, Angular, or Vue.js and their roles in client-side development. An expert lecture on client-side scripting by Mr. Pranit Shriniwas Thakur from PRANVI Compute h might encompass these fundamental areas, aiming to equip attendees with a strong foundational understanding of client-side scripting languages. These lectures often include practical demonstrations, examples, and exercises to reinforce learning. Client-side scripting is source code that is executed on the client's browser instead of the web-server, and allows for the creation of faster and more responsive web applications. It is use when browsers have all code. Source code used to transfer from web server to user's computer over internet and run directly on browsers



### **Expert Lecture on Web API Development**

The expert lecture on Web API Development by Shubham K Pardeshi at Zeal Institute on October 30, 2021, proved to be an illuminating exploration into the intricacies of web application programming interfaces (APIs). Shubham K Pardeshi, a recognized authority in the field, shared valuable insights into the principles, design strategies, and emerging trends in Web API Development.

Definition and critical role of Web APIs in modern software development. Real-world examples illustrating the diverse applications of APIs. API Design Principlesin-depth discussion on designing robust and user-friendly APIs. Insights into the principles of RESTful API architecture and its benefits. Common Challenges and Solutions Identification and comprehensive discussion of common challenges encountered in Web API Development. Practical strategies and solutions proposed by Shubham K Pardeshi to overcome these challenges. Exploration of emerging technologies influencing the landscape of Web API Development. Insights into the adoption and implementation of GraphQL, serverless architecture, and other cutting-edge trends. Case Studies Shubham K Pardeshi shared practical case studies to illustrate successful API implementations. In-depth analysis of real-world scenarios, highlighting lessons learned. Audience EngagementThe session featured an interactive Q&A segment, allowing participants to engage directly with Shubham K Pardeshi.

Engaging discussions on specific queries, challenges, and industry trends fostered a dynamic learning environment. The expert lecture on Web API Development by Shubham K Pardeshi at Zeal Institute on October 30, 2021, provided attendees with a profound understanding of the subject. Shubham K Pardeshi's expertise and practical insights proved invaluable, offering a comprehensive overview for developers at all levels of experience. Heartfelt gratitude to Shubham K Pardeshi for sharing his expertise.

Appreciation for the organizers at Zeal Institute for hosting a successful and enlightening event. Thanks to the participants for their active engagement and contribution to the discussion. This report encapsulates the key highlights and takeaways from Shubham K Pardeshi's expert lecture on Web API Development, emphasizing the significance of the event in fostering knowledge and understanding within the field...



### **Virtual Industrial Visit**

The virtual industrial visit to Wapmeds Global Business Services Pvt Ltd in Pandharpur on October 30, 2021, provided an insightful glimpse into the operations and processes of the company. Despite the virtual setting, the visit successfully conveyed the essence of Wapmeds Global's business activities and allowed participants to engage with the company's representatives. Introduction to Wapmeds GlobalOverview of the company's history, mission, and core values.

Introduction to key personnel and their roles within the organization. Company Infrastructure Virtual tour of the facilities, showcasing the workspace, departments, and technological infrastructure. Insight into the company's approach to creating a conducive work environment. Business Processes and Operations Detailed explanation of the company's business processes and operations. Overview of the services provided by Wapmeds Global Business Services Pvt Ltd. Technology Stack Discussion on the technology stack employed by the company. Insights into the tools and technologies used to streamline business operations. Q&A SessionAn interactive session where participants could pose questions to representatives from Wapmeds Global. Clarifications provided on queries related to the company's operations, industry trends, and future plans.

**Key Takeaways:** Industry InsightsParticipants gained valuable insights into the pharmaceutical industry and the role of Wapmeds Global within it. Technological Integration Understanding of the importance of technology in streamlining operations and enhancing efficiency. Workplace Culture Insight into the company's work culture and how it contributes to employee satisfaction and productivity.

Career Opportunities Information on potential career opportunities and the skill sets valued by Wapmeds Global. The virtual industrial visit to Wapmeds Global Business Services Pvt Ltd on October 30, 2021, was a valuable experience for participants. Despite the challenges of a virtual setting, the visit effectively conveyed the company's operations and allowed for meaningful interaction with representatives. The insights gained will undoubtedly contribute to a better understanding of the pharmaceutical industry and the dynamics of a global business services provider. Appreciation to Wapmeds Global Business Services Pvt Ltd for hosting the virtual industrial visit. Thanks to the organizers for facilitating a seamless and informative experience. Gratitude to the representatives and speakers for their time and insights. This report summarizes the key highlights and takeaways from the virtual industrial visit to Wapmeds Global Business Services Pvt Ltd, aiming to provide a comprehensive overview for participants and stakeholders. The main reason behind this, it lets student to know things practically through interaction, working methods and employment practices. Moreover, it gives exposure from academic point of view. Main aim industrial visit is to provide an exposure to students about practical working environment.

### **Expert Lecture On Software Development life Cycle.**

The expert lecture on Software Development Life Cycle (SDLC) by Mr. Akshy Kailash Chorge, Founder and CEO at Softy Inc, on November 15, 2021, was a profound exploration of the principles, methodologies, and practical insights into the software development process. The lecture aimed to provide participants with a deep understanding of SDLC and its application in real-world software engineering. Introduction to SDLCDefinition and critical importance of Software Development Life Cycle in the software engineering domain. Phases of SDLCIn-depth exploration of each phase in the SDLC, with specific emphasis onPlanning Defining project goals, scope, and resource requirements. Analysis Gathering and documenting detailed project requirements. Design Creating a blueprint for the software architecture and specifications. Implementation Coding and development of the software. Rigorous testing to ensure functionality and identify and fix defects. Launching the software for end-users. Post-deployment support, updates, and ongoing improvements. Discussion on various SDLC methodologies, including Waterfall, Agile, and DevOps. Insights into the advantages and challenges of each methodology and practical considerations for selecting the most suitable one based on project requirements.

Presentation of industry best practices for successful SDLC implementation. Emphasis on collaboration, communication, and adaptability throughout the software development life cycle.Case Studies Real-world case studies and examples from Softy Inc, illustrating successful SDLC implementations. Analysis of challenges faced and lessons learned, offering practical insights for the audience. The lecture included interactive elements, allowing participants to pose questions and engage in discussions. A dedicated Q&A session facilitated direct interaction between Mr. Akshy Kailash Chorge and the participants, providing valuable clarifications on specific SDLC-related queries. The expert lecture by Mr. Akshy Kailash Chorge, Founder and CEO at Softy Inc, on Software Development Life Cycle on November 15, 2021, delivered a wealth of knowledge and practical insights. Participants gained a deeper understanding of SDLC principles and methodologies, bridging the gap between theoretical concepts and real-world applications. The session was a testament to Mr. Chorge's expertise and served as a valuable resource for individuals involved in software development. Heartfelt gratitude to Mr. Akshy Kailash Chorge for sharing his invaluable knowledge and experience. Thanks to Softy Inc for organizing and hosting this enlightening expert lecture. Appreciation to the participants for their active participation and thoughtful engagement. This report captures the essence of the expert lecture on Software Development Life Cycle by Mr. Akshy Kailash Chorge, providing a comprehensive summary of key insights and takeaways for participants and stakeholders.SDLC allows developers to analyze the requirements. It helps in

reducing unnecessary costs during development. During the initial phases, developers can estimate the costs and predict costly mistakes. It enables developers to design and build high-quality

software products

### **Top 10 Trending Technologies in 2021**



Artificial Intelligence



Blockchain



Augmented Reality and Virtual Reality



Cloud Computing



Angular and React



DevOps



Internet of Things (IoT)



Intelligent Apps (I – Apps)



Big Data



RPA (Robotic Process Automation)



Machine Learning



Data Science



Deep Learning



### **Student Achievement**

Sr. No.	Name of Students	Percentage	Year
01.	KSHATRIYA SAMRUDDHI AVINASH	89.714 %	
02.	SIDDHARTH SANJAY NALERAP	88.714 %	FIRST YEAR
03.	ARTI BALAJI RAMESH	88.429 %	

Sr. No.	Name of Students	Percentage	Year
01.	DHOTRE VAISHNAVI SACHIN	92.533 %	- SECOND YEAR
02.	NIKAM VIVEK PRASHANT	92.267 %	
03.	BANGAR SUDARSHAN RAOSAHEB	91.733 %	
04.	MRINAL MORE	91.733 %	

Sr. No.	Name of Students	Percentage	Year
01.	TANMAY KUMBHAR	94.444 %	
02.	NUPOOR KALE	94.444 %	
03.	DEO SANJANA DIPAKK	93.333 %	THIRD YEAR
04.	SHIRSAGAR HERAMB ASHOK	92.778 %	
05.	VEDANSHOO VIJAY KADAM	92.778 %	

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