

### Principal's Message



PROF. AYUB A. TAMBOLI

Ph. D (Pursuing), ME(HPE), BE(Mechanical Engg.) ASHRAE, AWS, ISHRAE, MISTE, IE(I), 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.



PROF. VIJAY MOHITE

ME (Computer), LMISTE Head of Department, Computer Engineering Zeal Polytechnic, Pune

The Department of Computer Engineering has been established in the year 2008. Being the HOD it gives me immense pleasure to lead the department and be an integral part of its accomplishments. The department is striving hard towards the goal of providing innovative and quality education with high standard to achieve academic excellence.

Our department offers science-based engineering curriculum to the students to pursue their interest. The primary focus of our curriculum is to impart technical know-how to students, promote their problem-solving skills and innovation of new technologies. The course contents are periodically updated for introducing new scientific and technological developments. Our faculty members have excellent academic credentials and are highly regarded. I welcome you to the Computer Department as an undergraduate and hope to be part of your success.

### About Zeal Polytechnic, Pune.

Zeal Polytechnic, situated in the vibrant city 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 well-prepared 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.



To equip the students with technical and professional skills in Computer Engineering by imparting skill based education along with industrial knowledge to fulfill the changing needs of the society.





M2. To imbibe lifelong learning skills through hands on training, value added courses to work in multi disciplinary socio- industrial environment.

M3. To cultivate proficiency in problem-solving, communication skills and spirit of entrepreneurship as an individual and collaborative team member.

### **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 public 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.

# Report on Student Training Program on Android Application Development

the Student Training Program conducted on Android Application Development. The program aimed to provide students with hands-on experience and practical knowledge in designing and developing Android applications. The primary objective of the training program was to equip students with the skills and expertise necessary for Android application development. The program focused on both theoretical concepts and practical implementation, providing participants with a holistic understanding of the Android development ecosystem Overview of the Android operating system and its architecture. Fundamentals of Java programming language. Advanced concepts related to Android application development, including UI design and event handling. Design principles for creating user-friendly and visually appealing interfaces. Practical exercises on creating layouts and incorporating widgets. Database Integration Introduction to SQLite database and its integration into Android applications. Hands-on experience with database operations in Android. Understanding the basics of networking in Android. Integrating RESTful APIs for data retrieval and communication. Participants were engaged in a practical project to apply the knowledge gained during the training program.

The training program saw active participation from students across different academic levels. Feedback from participants highlighted the effectiveness of the hands-on approach, interactive sessions, and the relevance of the topics covered to current industry standards. The Student Training Program on Android Application Development proved to be a valuable initiative in enhancing the technical skills of participants. By combining theoretical knowledge with practical implementation, the program successfully empowered students to create functional and innovative Android applications. Initiatives contribute significantly to the overall skill development and readiness of students for the challenges of the modern technological landscape.





### National Engineers Day Celebration - Blind Coding Using C Language

We are delighted to present a report on the celebration of National Engineers' Day at ZEAL INSTITUTES on September 15, 2023. The event was organized to commemorate the birth anniversary of Sir Mokshagundam Visvesvaraya, a distinguished Indian engineer and statesman. National Engineers' Day is celebrated annually on September 15 to honor the contributions of Sir Mokshagundam Visvesvaraya to the field of engineering and nation-building. To mark this occasion, the Computer Engineering Department organized a special event – Blind Coding Using C Language. The primary objective of the Blind Coding event was to engage students in a challenging and fun coding competition using the C programming language. The event aimed to celebrate the spirit of engineering, promote teamwork, and enhance coding skills among students. Participants were given coding problems related to C language without prior knowledge of the problem statements. This added an element of surprise and encouraged quick thinking and problem-solving skills. To foster collaboration and teamwork, participants were grouped into teams. The event emphasized the importance of effective communication and cooperation in solving coding challenges.

Participants faced a time constraint, adding an element of urgency to the competition. This simulated real-world scenarios where engineers often work under tight deadlines. Solutions were evaluated based on correctness, efficiency, and adherence to coding standards. The judging criteria aimed to recognize not only the speed of coding but also the quality of the solutions.

The event witnessed active participation from students across various years of the Computer Engineering program. The enthusiasm and competitive spirit displayed by the participants contributed to the overall success of the celebration. Winning teams and individuals were recognized and awarded prizes as a token of appreciation for their coding prowess. The acknowledgment of their achievements served as motivation for continuous improvement and excellence in coding skills. The Blind Coding event on National Engineers' Day was a resounding success. It not only celebrated the legacy of Sir Mokshagundam Visvesvaraya but also provided a platform for students to showcase their coding abilities, collaborate with peers, and embrace the challenges of real-world coding scenarios. Special thanks to Sir Mokshagundam Visvesvaraya for inspiring generations of engineers













### **Expert Lecture on Computer Graphics**

## Conducted by Mr. Ajit Mali on 7th Oct 2023 For the students of Second Year(Computer)

The Expert Lecture on Computer Graphics was conducted to provide insights into the fundamental concepts, advancements, and practical applications of computer graphics in various industries. The session aimed to delve into the core principles of computer graphics and their relevance in modern technological advancements. The Expert Lecture on Computer Graphics successfully provided attendees with an expansive understanding of fundamental principles, practical applications, and advancements within the field. It served as an enlightening forum, inspiring innovation and highlighting the diverse practical implications of computer graphics across industries. The lecture highlighted the broad spectrum of applications in fields such as gaming, animation, virtual reality, architecture, and medical imaging, showcasing the ubiquitous nature of computer graphics in modern industries.

The session commenced with an exploration of core principles encompassing rendering, modeling, animation, and image processing in computer graphics. Attendees were introduced to foundational theories shaping the field. Real-world implications of computer graphics were emphasized throughout the lecture. Practical demonstrations and examples illustrated how these concepts are leveraged to solve problems and enhance user experiences in diverse real-world scenarios. The session aimed to inspire creativity and innovation among participants. Highlighting the potential for creative exploration within computer graphics, the lecture encouraged attendees to think beyond conventional boundaries.





### Report on Diwali Celebration - November 8, 2023

We are pleased to present a report on the Diwali celebration organized by Zeal Institute on November 8, 2023. The event was a joyous occasion that brought together the Zeal Institute community and their family members to celebrate the festival of lights.

Diwali, the festival symbolizing the triumph of light over darkness, is celebrated with great enthusiasm and zeal at our institute. The Diwali party on November 8, 2023, aimed to create a festive atmosphere, foster community spirit, and provide an opportunity for faculty, staff, and their families to come together in celebration The institute was adorned with traditional Diwali decorations, including pangolin, divas, and vibrant lights, creating a festive ambiance. Students and faculty members showcased their talents through various cultural performances, including dance, music, and skits. These performances added a colorful and entertaining touch to the celebration. A delicious feast featuring a variety of traditional Diwali sweets and snacks was organized. The feast allowed everyone to relish festive treats and share the joy of the occasion. The event encouraged family members to participate, fostering a sense of inclusivity and community. The presence of family members added to the warmth and joy of the celebration. Various games and activities were organized, providing an opportunity for everyone to engage in friendly competition and enjoy the festive spirit.

The Diwali celebration served as a platform for members of the Zeal Institute community to interact in a relaxed and joyous setting. It enhanced camaraderie among students, faculty, and staff, fostering a sense of belonging and community spirit To express gratitude and appreciation, small Diwali gifts were distributed to faculty and staff. This gesture aimed to acknowledge their hard work and dedication throughout the year. In adherence to safety protocols, necessary precautions were taken to ensure a safe and enjoyable celebration. This included maintaining social distancing where required and providing hand sanitization stations. The Diwali celebration at Zeal Institute on November 8, 2023, was a grand success. It not only celebrated the cultural diversity within the institute but also provided an opportunity for everyone to come together, enjoy festive traditions, and strengthen the sense of community. We extend our heartfelt gratitude to all the participants, organizers, and contributors who made the Diwali celebration a memorable and joyous occasion for the Zeal Institute community.











## Training Session by Mr. Ashutosh Joshi on Resume Writing, Profile Management, and Interview Preparation

We are thrilled to share highlights from the recent report on the training session conducted for third-year Computer Engineering students by Mr. Ashutosh Joshi. The session, focusing on Resume Writing, Profile Management, and Interview Preparation, was organized with the goal of enhancing interview-related skills to facilitate easier placement opportunities for the students. The training session was designed to equip third-year Computer Engineering students with the essential skills needed for successful job placement. Mr. Ashutosh Joshi, with his expertise in recruitment and career development, was invited to share insights into effective resume writing, profile management, and interview preparation strategies.

The session commenced with an in-depth discussion on the importance of a well-crafted resume and effective profile management. Mr. Joshi guided students on structuring their resumes, highlighting key achievements, and optimizing their online profiles. Practical tips were shared to make their profiles stand out to potential employers. The training session covered key components of a resume, including the objective statement, educational qualifications, skills, work experience, and projects. Mr. Ashutosh Joshi provided examples and templates to help students create impactful and customized resumes tailored to their strengths and career aspirations. The focus then shifted to interview preparation strategies. Mr. Joshi shared insights into common interview formats, frequently asked questions, and effective ways to respond. Mock interview scenarios were conducted to provide students with hands-on experience and constructive feedback to enhance their interview performance.

Recognizing the importance of soft skills, the training session emphasized effective communication, interpersonal skills, and body language during interviews. Students were provided with guidance on building confidence and presenting themselves professionally.Mr. Ashutosh Joshi shared insights into current industry expectations and trends in recruitment. This included an overview of skills and qualities that are highly valued by employers in the rapidly evolving technology landscape.An interactive question and answer session allowed students to seek clarification on specific resume writing, profile management, and interview-related queries. Mr. Joshi addressed individual concerns, providing personalized advice and guidance.The training session on resume writing, profile management, and interview preparation by Mr. Ashutosh Joshi was highly impactful. It equipped third-year Computer Engineering students with practical skills, boosting their confidence and The skills imparted will undoubtedly contribute to the success of our students in their career endeavors

### **Blood Donation Camp**

Zeal College hosted a commendable blood donation camp, On October 4, 2023, underscoring the institution's commitment to community welfare. The event aimed to encourage voluntary blood donation and contribute to the noble cause of saving lives through a sufficient and readily available blood supply. The organizing committee demonstrated meticulous planning in the weeks leading up to the blood donation camp. Various aspects, such as venue setup, volunteer recruitment, promotional strategies, and collaboration with healthcare professionals, were carefully addressed.

To maximize participation, the event was extensively promoted across multiple channels. Eyecatching posters adorned the college premises, social media platforms buzzed with event updates, and local community announcements heightened awareness. Informational materials were distributed, providing essential details about the significance of blood donation and the donation process.

A seamless registration process ensured that donors could easily sign up for the event. Volunteers, well-versed in their roles, efficiently managed the registration desks, guiding donors through the process and addressing any queries they had. The steady flow of donors throughout the day reflected the success of the promotional efforts and the eagerness of individuals to contribute to the cause.

The event's success was further bolstered by collaboration with local healthcare professionals and blood donation organizations. Their presence ensured that all aspects of the blood donation process adhered to safety standards and regulatory guidelines. Their expertise was instrumental in addressing any medical concerns and providing a secure environment for donors.



The blood donation camp at Zeal College on October 4, 2023, was a resounding success, exemplifying the spirit of altruism within the college community and beyond.

The blood donation camp stands as a testament to the positive outcomes that can be achieved through collaborative efforts and community involvement. As the college continues to prioritize such initiatives, it paves the way for a healthier and more compassionate society.

### **Student Training Program on Java Programming**

The Student Training Program on Java Programming, conducted on [Date], aimed to equip students with essential skills and knowledge in Java programming, a widely used and versatile programming language. The training program sought to enhance participants' understanding of Java fundamentals, programming concepts, and practical application through hands-on exercises. The program began with an introduction to Java, covering its history, significance in the software industry, and the wide range of applications it supports. Participants were guided through the basics of Java programming, including variables, data types, operators, and control flow statements. Emphasis was placed on building a strong foundation in Java syntax. The training delved into key Object-Oriented Programming concepts, such as classes, objects, inheritance, polymorphism, encapsulation, and abstraction. Participants gained a deeper understanding of the principles underlying Java's object-oriented nature.

An overview of Java's extensive Application Programming Interface (API) and commonly used libraries was provided. Participants learned how to leverage existing code and functionalities to enhance their Java applications. The training program covered the importance of exception handling in Java and introduced participants to try-catch blocks, throwing exceptions, and creating custom exceptions for robust error management. Participants explored the concepts of multithreading and concurrency in Java, understanding how to create and manage multiple threads to improve program efficiency. An interactive session on JavaFX introduced participants to building graphical user interfaces (GUIs) using Java. Practical exercises allowed students to create simple JavaFX applications. The training program included a module on Java Database Connectivity (JDBC), enabling participants to connect Java applications to databases, execute SQL queries, and handle data retrieval and updates.

Experienced instructors delivered engaging lectures and presentations to introduce concepts, explain syntax, and demonstrate programming techniques. Participants were provided with practical coding exercises at the end of each module, allowing them to apply the concepts learned and reinforce their understanding of Java programming. Interactive question—and—answer sessions were conducted to address participants' queries, clarify doubts, and ensure a thorough understanding of the material. A feedback mechanism was implemented to collect participants' opinions on the effectiveness of the training program, the quality of the content, and the overall learning experience.

Certificates of completion were awarded to participants who successfully completed the training program, acknowledging their dedication and newly acquired skills in Java programming. The Student Training Program on Java Programming provided participants with a comprehensive understanding of Java fundamentals, object-oriented concepts, and practical application. The hands-on approach, coupled with interactive sessions, contributed to a positive learning experience. The organizers received positive feedback from participants, indicating the success of the program in achieving its objectives. Such training initiatives play a crucial role in preparing students for real-world applications and contributing to their proficiency in Java programming.

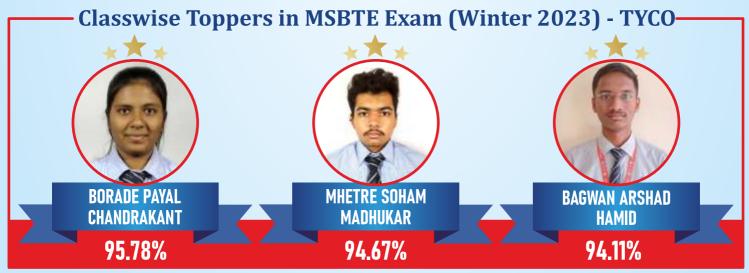




### **Student Achievement**







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## 90%+ in MSBTE Exam (Winter 2023)

#### 90%+ students - FYCO



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**VEDANT HULE** 



YASHRAJ K PADHAR



ANUSHKA M PATIL



TANVI NANNAJKAR