

#### Samvaad Editorial Article: Current Challenges in Soil Structure interaction for Structural and Geotechnical Engineers

Now a days High rise structures are increased in metro cities due to lack of space availability. To overcome this problem vertical development of region are increases on the other hand structural engineers, Geotechnical Engineers and Engineering seismologist and other design and construction professionals interact with each other on projects involving soil structure interaction. Soil structure interaction is important key indicator for evaluation of collective response of three linked system viz. the structure, the foundation and the soil underlying and surrounding the foundation. Various parameters are considered such as structural stiffness, orientation of High Rise Buildings (H.R.Bs.), floor plan aspect ratio, epicenter distances and ground excitation, effects of near fault & far fault on structures and soil foundation-structure interaction.

The soil structure interaction of High rise structures Evaluates and analyses behaviors in relation to soil property, the structural rigidity in relation to aspect ratio and orientation of building including plan irregularity and vertical irregularity, dynamic characteristics and structural responses with consideration of time history analysis. To acquire new information about the response of RC structures to near fault ground moA graph is develop that shows a relationship between amplitude of zero magnitude at different epicenter distance and soil characteristics effects included in time history analysis of RC framed structures. Finite Element model of RC Frame structure with consideration of seismic data obtained from National seismological Data base Centre (NSDC) are simulated that contributed to effects of Soil structure interaction with and without consideration of ground motion.

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#### Samvaad Editorial

#### **Dear Members of PCCoE Family,**

Nurturing creativity and inspiring innovation are two of the key elements of a successful education and a college magazine or newsletter is the perfect amalgamation of both.

College newsletter will amply demonstrate the technical competence, communication skills, poetic prowess, imagination, creativity, and humor.

We members of 'Newswire Committee' of PCCoE in initiation of Quality Assurance Team, coming up with this <u>February'2024</u> issue of "Samvaad" a monthly e-Newsletter of PCCoE, with Signature event of PCCoE on page 2, Achievements of PCCoE at University, State and National level on page 9 & 10, along with department wise activities and achievements from page 3 to 8. The flyers for ICCUBEA-2024 (8<sup>th</sup> in series) and *i-MACE-2024 (3<sup>rd</sup> in series)*, two conferences organised by Pimpri Chinchwad College of Engineering, Nigdi, Pune are on page 9, please refer and circulate to all your contacts in other institutes of SPPU, other universities in Maharashtra, India and aboard.

tion and extent of difference existing in comparison with those of far fault ground motion and focusing on result critical parameters such as maximum top displacement, Interstorey drift ratio. Development of Next generation attenuation relationship for shallow crustal earthquake in active tectonic region also curvature at shallow depth and focal depth.

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# Signature Event of PCCoE: "Spectrum 2024" ......16<sup>th</sup> in series

#### Greetings, Spectrums of Creativity!

The much-awaited annual extravaganza, Spectrum'24, unfolded its vibrant wings on the auspicious day of 17th February 2024. The event was successfully organized by Department of Applied Science and Humanities at Pimpri Chinchwad College Of Engineering, Pune. It was a day filled with innovation, enthusiasm, and sheer brilliance as the event welcomed esteemed guests, faculties, and budding engineering talents.





#### A Message from Our Head of Department Dr. Sanjivani Sonar, Applied Sciences and Humanities

"Embark on a journey of innovation and collaboration at Spectrum '24! Together, let's ignite minds, push boundaries, and create unforgettable moments of learning and growth. Your passion, dedication, and unwavering spirit have made this event a resounding success!" Until we meet again at Spectrum'25, let the echoes of innovation continue to resonate, shaping a brighter tomorrow!

#### **Objectives of Event:**

- 1. To ignite creativity and innovation among first-year engineering students by providing them with a diverse range of challenging events such as Brain Dasher, Bottle Rocket, and E-Paradox. These events serve as a platform for participants to push the boundaries of their knowledge and skills, encouraging them to think outside the box and come up with unique solutions to real-world problems.
- 2. To promote collaboration and teamwork among students from different engineering disciplines. Through events like Electrica, War of Words, and Tech Treasure Hunt, participants have the opportunity to work together, exchange ideas, and learn from each other's perspectives. By fostering a collaborative environment, Spectrum cultivates essential interpersonal skills that are crucial for success in the field of engineering.

#### Inauguration with a Splash:

The inauguration of Spectrum'24 witnessed a remarkable moment as a water rocket soared into the sky, symbolizing the launch of this grand event. The presence of Mr. Ravi Pingale, an eminent Industrialist, along with Dr. Nilkanth B Chopade, Deputy Director, PCCoE, added fervor to the occasion, setting the stage for an unforgettable symposium.

#### **Distinguished Visitor's Acclaim:**

Dr. Manohar G. Chaskar, the Dean of Science and Technology at SPPU, graced Spectrum'24 with his presence, commending the efforts and innovation showcased by the participating students. His words of encouragement resonated deeply, inspiring all present. Moreover, Dr. Chaskar pledged support for future editions of Spectrum under the SPPU banner, extending invitations to colleges far and wide to partake in this celebration of brilliance.

#### An Ocean of Talent:

With over 1450 enthusiastic students participating and a hundred more visiting to witness the spectacle, Spectrum'24 truly transformed into a melting pot of talent, ideas, and creativity. The sheer diversity of talent and ideas showcased was nothing short of awe-inspiring.

#### A Myriad of Events:

Eight riveting events formed the core of Spectrum'24, each challenging the participants to push their boundaries, think innovatively, and collaborate effectively. From technical challenges to creative showcases, every event added its own unique flavor to the symposium. The list of events organized at Spectrum '24 such as Brain Dasher, Bottle Rocket, E-Paradox, Electrica, War of Words, Chem-Prastuti, Tech Treasure Hunt and Video Games.

#### **Generous Sponsorships:**

Spectrum'24 received overwhelming support from sponsors, with contributions totaling more than 5,00,000 in the form of cash and gift vouchers. This generous support not only underscores the significance of the event but also serves as a testament to the value it adds to the academic and extracurricular landscape.

#### **Behind the Scenes Heroes:**

The event was planned and organized by students and faculty team. In students team there were 140 students as volunteers and coordinators led by the Students Core Team of Mr Atharv Desai, Ms Ketaki Gaikwad, Ms Varada Gachke, Mr Kunal Shitole, Mr Shreeyash Patil.

The seamless execution of Spectrum'24 wouldn't have been possible without the dedication and tireless efforts of our coordinators: Dr. Sandeep Patil, Dr. Shaziya Shaikh, and Dr. Amol Kharche. Under the able guidance of Dr. Leena Sharma and HoD Dr. Sanjivani Sonar, AS&H, they ensured that every aspect of the event was meticulously planned and executed.

As we bid adieu to yet another successful edition of Spectrum, let us carry forward the spirit of innovation, collaboration, and excellence that defines this symposium. With the promise of an even brighter future, let us continue to push the boundaries of knowledge and creativity.



#### Faculty Team of Spectrum 2024



Dr Leena Sharma





Dr Sandeep Patil Dr Shaziya Shaikh

Dr Amol Kharche











## **Mechanical Department**

#### Faculty Development Programs:-

- 1. Mrs. R.S. Pimpalkar Successfully completed FDP on "Pythonic Insights: Unravelling Data Science and Machine Learning Magic", Organised by JSPM, Narhe Technical Campus, Narhe, from 30/01/2024 to 03/02/2024.
- 2. Dr. Padmakar A. Deshmukh Successfully completed State level FDP on "Design Thinking, Innovation and Entrepreneurship", Organised by Maharashtra State Faculty Development Academy at Vigyan Ashram, Pabal from 12/02/2024 to16/02/2024
- 3. Total 46 faculty members from Mechanical Department has completed one week FDP on "NEP 2020 Orientation & sensitization" under "Malviya Mission Teacher Training Programme (MM-TTP)" of UGC organized by SPPU, Pune.
- 4. Mr. Karan Bhaskar Khare Successfully completed Online certificate Course Program in "Finite Element Analysis & Ansys", organised by CADCAMBRIDGE Solutrions Pvt. Ltd. Kothrud, Pune

#### Faculty Publications:

- 1. Dr. C. L .Ladekar Published research paper on "Design and Analysis of Serviceable cantilever fit snap in automotive plastic parts" World Journal of engineer ing (Scopus Q3 and ESCIE), February 2024.
- 2. Mrs. Rita Pimpalkar and Dr. Rajkumar Patil Published the research paper on "Failure Modes and Effects Analysis of Polycrystalline Photovoltaic Modules Exposed to the Composite Climate of India" in Journal of the Institution of Engineers, February 2024.
- 3. Dr. A. D. Pingale and Dr. M. Madgule published the research paper on"An Experimental Investigation on the Pool Boiling Heat Transfer of R-134a on Mi croporous Cu-MWCNT Composite Surfaces " in Journal of Thrmo, 2024

#### MOU signing Event with ASCET CAST TECH

In a landmark development for Mechanical Engineering Department, an Memorandum of Understanding (MOU) was successfully inked with ASCENT CAST TECH (deals with prototyping services and supply of machined-cast-components), solidifying a strategic partnership between our institution and the esteemed company. The signing ceremony, held on 29/02/2024, featured the participation of key figures including our honourable Director, Dr. G N Kulkarni, Deputy Director Dr. N.B Chopade and Mr. Kalyan Bobade, the Managing Director of ASCENT CAST TECH. The comprehensive MOU encompasses collaborative research initiatives, joint product development endeavours, and a promising avenue for student internships. The ceremony was graced by the presence of Dr. P.A.Deshmukh, the HOD of Mechanical Engineering, Dr. P. R. Kale. Dean of Student Development, Dr. N. R. Deore, Associate Dean III, and several esteemed faculty members including MOU coordinator Dr. Upendra Maurya, signifying the collective commitment to fostering academic-industry synergy. This collaboration heralds a new era of innovation and experiential learning within our institution. —Mrudula Lele [F,Y Btech





#### VICTORY OF PCCOE AT KRIDANGAN EVENT

'Kridangan' event was organised at ILS law college ,Pune from 26th Feb to 29th Feb 2024.The first match was between PCCOE and ILS team B and we won the match by 40 runs. Similarly PCCOE won the next matches with other colleges present in the competiton.

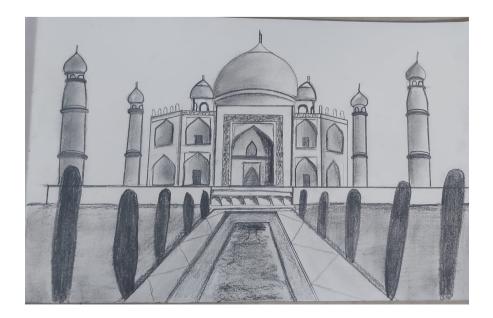
<u>Player names</u>

Aditya Bhosle (captain)	[4th year Civil]
Siddharth nalawade	[4th year CS]
Yash chavan	[4th year EnTc]
Randhirr	[4th year EnTc ]
Pratyush upadhyay	[4th year EnTc ]
Hari	[3rd year EnTc]









## **Electronics & Telecommunication Department**

#### 1.Firodia karandak

The Department of Electronics and Telecommunication students from Pimpri Chinchwad College of Engineering made waves at the Firodia karandak State-Level Intercollege Multi-Talent Competition with their outstanding performances in "Cinema on Stage". Shantanu Sonar got 1<sup>st</sup> prize for best congos, while Nidhi Vartak got prize for playing melodica. Arya Dabhadkar and Tanvi Shimpi got first prize for best team dance . Meanwhile, Sanket More's innovative use of special effects, particularly his stunning train simulation, got first prize . Their collective efforts and exceptional talents were duly recognized as they clinched top prizes, a testament to their dedication, skill, and the department's commitment to excellence in both technology and the arts.





#### 2. Project Exhibition

Electronics and Telecommunication (ENTC) department, under the IETE Student Forum, organized a dynamic project exhibition in commemoration of National Science Day. The exhibition showcased the innovative projects crafted by ENTC students, spanning a wide array of topics such as Internet of Things (IoT), embedded systems, communication networks, etc. Students demonstrated their projects to esteemed guests, including industrialists and mentors, providing insights into their research, development processes, and practical applications. The event served as a platform for students to interact with industry professionals, receiving valuable feedback and insights into real-world applications of their projects. The exhibition not only celebrated the spirit of scientific inquiry but also highlighted the talent and ingenuity of ENTC students. It served as a fitting tribute to National Science Day, inspiring students to continue pushing the boundaries of knowledge and innovation.

#### 3. Drone Workshop

The recent five-day drone workshop was conducted provided participants with a comprehensive learning experience spanning theoretical understanding and practical skills in drone technology. Beginning with online basic teaching sessions, participants gained foundational knowledge on drone components, flight principles, safety, and regulations. Subsequent days involved hands-on activities, including device simulation exercises and practical assembly tasks using drone kits. The workshop culminated in the preparation of final drone models, where participants applied their knowledge and skills to assemble and fine-tune their drones under the guidance of experienced instructors. Through a structured combination of theory and hands-on practice, the workshop equipped participants with the necessary expertise and confidence to navigate the complexities of drone technology effectively, preparing them for future endeavors in the field.



#### **Civil Engineering Department**

- 1. Dr. Sandip T. Mali participated in the launch of the WASH Synergetic Alliance (WASH SA) by Ecosan Services Foundation, Pune on 3rd February 2024.
- 2. Dr. A. K. Gaikwad attended One Day of training in MCCIA (Maratta Chamber of Commerce, Industries, and Agriculture) Pune on "Industry Upskilling and Capability Building Program" on 20th February '24.
- 3. Dr. A. K. Gaikwad, completed Two weeks of training by MMTTP (Malavia Mission Teacher's Training Programme) of UGC- Human Resource Development Centre of SPPU, Pune, on "NEP 2020 Orientation & Sensitization Programme " from 01st -14th February 2024.
- 4. Mr. Swapnil Gorade completed Two weeks training by MMTTP (Malavia Mission Tachers Training Programme) of UGC- Human Resource Development Centre of SPPU, Pune, on "NEP 2020 Orientation & Sensitization Programme" from 01st -14th February 2024.
- 5. Mr. Tanmay S. Khambekar participated in the launch of the WASH Synergetic Alliance (WASH SA) by Ecosan Services Foundation on 3rd February 2024 at Pune.
- 6. Ms. Anushree A. Chandragade attended the International Webinar Series on Geoenvironmental Engineering, Sustainability, and Resiliency on the Topic: The Many Faces of HDPE Geomembranes and the Effect on the Service Life on 29th February 2024 organized by the University of Illinois Chicago, USA.
- Ms. Anushree A. Chandragade attended the International Webinar Series on Geoenvironmental Engineering, Sustainability, and Resiliency on the Topic: Investigations of Groundwater Contamination with NAPL Petroleum Spills and Remediation on 8th February 2024 organized by the University of Illinois Chicago, USA.
- Ms. Anushree A. Chandragade attended the International Webinar Series on Geoenvironmental Engineering, Sustainability, and Resiliency on the Topic: Can Microbes Solve Civil Engineering Problems? A Perspective of Green Energy, Bio cementation, and Bioremediation on 1st February 2024 organized by the University of Illinois Chicago, USA.

Patents/copyright granted: Dr. D.S. Lal granted a Patent titled 'System and method for marking layout coordinate on a geographic area' on 12<sup>th</sup> February 2024.

CiESA Event: "Ankahein Baatein" event organized by CiESA on 15th February 2024.

#### **Students and Faculty achievements:**

- 1. Dr. D.S. Lal as a guide received a participation certificate for Mr. Satvik Shahapurkar PG CM Civil student 2022-23 batch at Vidyarthi Award 2024.
- 2. Mr. Tanmay Khambekar as guide received participation certificates for Mr. Mayur Shinde and Mr. Tanmay Somvanshi Civil student 2022-23 batch at Vidyarthi Award 2024.
- 3. Mr. Aditya Aghav SY Civil worked as a Volunteer for the Constro 2024 exhibition by PCERF. Felicitated by Dr. Joshi, HoD Research and Training, PCERF, Pune
- 4. Ms. Pradnya Agale, T.Y. B-tech Civil student won 1<sup>st</sup> Prize at an event entitled Theme Event- Sustainable Engineering at Sinhgad Techtonic 2024.







S.Y. B-tech Civil Girls are PCCoE Fitness First Kabaddi Champions declared on 6th February 2024.



Dr. Joshi Shriniwas, HoD Research and Training, PCERF Pune interacted with B-Tech final-year students working on a PCERF-sponsored project on 10th February 2024.



SPPU AVISHKAR TEAM felicitation function at SPPU, Ms. Pradnya Pradhan, S.Y. M-tech CM Civil participated on 10th February 2024



Activity under MoU, Interactive session for Civil students by Mrs. Vineeta Date, Chairperson, Environment Conservation Association, Pune on 16th February 2024.



MoU between PCCoE Civil and M/s. Kshirsagar Enterprises on 6th February 2024. Scope of MoU- Technical Internship at Site/Placement/Expert Lecture/Field Visit

### **Computer Engineering Department**

1.Congratulations to the SPPU Chess Team for their outstanding achievement in securing the Gold Medal at the Krida Mahostav Inter University Chess Competition organized by the Government of Maharashtra. Leading this victorious team is Sankarsh Shelke, a student of TYCOMP, who serves as the captain of the Gold Medalist SPPU Chess Team. Their dedication, skill, and teamwork have truly shone through, show-casing their excellence in the game of chess. This accomplishment is a testament to their hard work and commitment to success.





2. Participating in the Research Opportunities in Computer Science (ROCS-2024) at IIT-Bombay on February 24th proved to be an immensely enriching experience. The event served as a comprehensive platform, offering valuable insights into diverse realms of computer science through engaging speaker sessions conducted by esteemed experts in the field. Delving into topics ranging from M.Tech and PhD opportunities at IIT-B to cutting-edge discussions on Machine Learning, Algorithms, Cybersecurity, and Language Models like ChatGPT, each session left attendees both enlightened and inspired.

Gratitude is extended to ACM India for pioneering such an impactful initiative, and to the IITB Trust Lab for meticulously organizing this event. It was a privilege to partake in #ROCS2024, immersing oneself at the forefront of computer science research and academia, and exploring the limitless possibilities within this dynamic field. This experience undoubtedly underscored the importance of collaboration, innovation, and continuous learning in shap-

ing the future of technology.

3. This year's annual ACM event held in Bhubaneswar, Odisha, showcased numerous international talks and sessions, attracting renowned speakers to India. ACM's tradition of recognizing excellence was upheld as they presented awards, including the prestigious title of the Best ACM Student Chapter of the Year. Out of 192 ACM Chapters in India, the PCCOE ACM Student Chapter secured this esteemed accolade, a testament to their dedication and commitment to advancing the field of computer science.

Moreover, attendees had the privilege of meeting Robert Metcalfe, the esteemed founder of Ethernet, adding a special highlight to the event. ACM's support in covering travel and stay expenses underscores their commitment to fostering growth and recognition within the community. This recognition and interaction with industry pioneers like Metcalfe serve as significant milestones, inspiring further innovation and collaboration within the ACM community.

Such experiences not only enrich the academic journey but also serve as catalysts for future endeavours, shaping the next generation of leaders and innovators in the field of computer science.





4. The "Lehra Do Tiranga" poster-making competition, organized by Team ACM, was a vibrant celebration of creativity and patriotism. Rutuja Chavan, Chaitrali Chaudhary, and Yash Dongre emerged as the deserving winners of this spirited event, showcasing their exceptional talent and dedication to the theme. Through their imaginative artwork, they depicted the essence of the Indian flag, capturing its rich symbolism and historical significance. Each stroke of their brushes and every detail of their compositions echoed the spirit of unity, diversity, and resilience that the Tiranga represents.



#### **Faculty Achievements**

1.Mrs. Minal Shahakar has been honored with the prestigious Best Paper Award for her remarkable contribution titled "ONU: A Reinforcement Load Balancing Approach for Resource-Aware Task Allocation in Distributed Systems." This accolade was bestowed upon her during the presentation at the 6th International Conference on Emerging Smart Computing and Informatics 2024, hosted by AISSMS IOIT, Pune. Mrs. Shahakar's paper delves into innovative strategies for enhancing resource-aware task allocation in distributed systems, showcasing her expertise and pioneering research in the field. Her recognition underscores the significance of her work and its potential impact on advancing smart computing and informatics. Congratulations to Mrs. Minal Shahakar for this well-deserved achievement!



2.Mr. Ketan Desale sir recently conducted an expert session on the "Basics of 8086 Programming" for the Second Year IT Engineering students of PCCOE College, marking a significant milestone in knowledge dissemination. Delving into the intricacies of this foundational topic, Mr. Desale provided invaluable insights and guidance to eager minds, enriching their understanding of 8086 Programming. Gratitude is extended to Dr. Sonali Patil, HOD of the IT Department at PCCOE, for extending the gracious invitation and facilitating this engaging session. Additionally, recognition is due to Prof. Radha Deogharé and Prof. Prachi Bhalekar for their commendable coordination and seamless organization of the event. The active participation and positive feedback from the students further underscored the success of the session. Mr. Desale eagerly anticipates more such opportunities to share knowledge and inspire future generations.

3.Mr. Ketan Desale sir recently delivered an expert lecture on "Insight into Digital Technology - Marketing & Use of AI in Marketing" at the Central Institute of Road Transport (CIRT). This session was a significant component of a 3-day Training Programme on Sustainable Public Transport: Branding, Image Building, sponsored by the Ministry of Road Transport & Highways, Government of India (MoRTH). Mr. Desale's expertise shed light on the crucial intersection of digital technology and marketing, particularly focusing on the application of artificial intelligence (AI) in marketing strategies. The session provided valuable insights into leveraging digital tools effectively to enhance branding and image building in the realm of sustainable public transport. Mr. Desale's contribution was instrumental in enriching the participants' understanding and equipping them with innovative approaches to address contemporary challenges in the transportation sector.





4.The SQL Query Quest has reached its successful conclusion, thanks to the dedication and hard work of all participants. We extend our heartfelt appreciation to everyone involved, from the brilliant minds of our technical team who orchestrated this event to the enthusiastic participants whose passion for SQL drove the competition's success. Together, they have made this event a resounding triumph, showcasing the power of collaboration and expertise in the world of database management. Congratulations to all!

2. Team CESA and PCCoE ACM Student Chapter extend warm greetings! Reflecting on our enlightening ESP session led by Dr. Prashant Nair, we're filled with gratitude for the invaluable insights shared. Delving into the fundamentals of AI, ML, and Data Science, Dr. Nair's teachings sparked a journey of self-discovery and growth for all involved. Special thanks to Dr. Nair for his wisdom and guidance along this transformative path. We express our heartfelt appreciation to all who joined us for the session, and extend gratitude to our HOD Dr. K. Rajeswari and Professor Rahul Pitale for their unwavering support. Kudos to our dedicated students, volunteers, and behind-the-scenes contributors whose efforts made this event a resounding success!



## **Computer Department CSE (AIML)**

The students' association of CSE (AI & ML) Department - PCCOE's AiMSA along with PCCOE's GFG Pccoe Student Chapter had organized a flagship event "ARTIMAS 2024" from 22nd February to 24th February 2024. It is an annual technical event with various activities. It help students to enhance their technical and non-technical skills.

#### The Events of ARTIMAS 2024 were :

- 1. HackMatrix (Hackathon).
- 2. Neurodrain (Quiz).
- 3. Adrenaline Rush (VR Gaming)
- 4. Among Us (in Real Life)
- 5. Houdini Heist (Escape the Room).
- 6. Pixel Perfect (Photography Contest).
- Total number of Registrations 1800

2. GeeksforGeeks student chapter has organized a session on "Interaction and Q&A with Mr. Sandeep Jain " by Mr. Sandeep Jain, Founder and CEO of GeeksforGeeks February 24th 2024.

3. Higher studies Cell of department has conducted session on "Placement and Higher study opportunities through GATE and other competitive exam" by Mr. Paresh Gugale from Imperial Institute, for CSE (AI & ML) Students on 9th January 2024.

4. Higher studies Cell of department has conducted session on "International Research Internships and Opportunities" by Dr. Ujjwal Baid, P.hD, Assistant Research Professor at Indiana University, USA for CSE (AI & ML) Students on 9th January 2024.

5. Higher studies Cell of department has conducted session on "**MBA As a career after Engineering**" by TIMES Institutes for CSE (AI & ML) Students on 16th Feb **2024.** 







## **Faculty Achievements**

- Pradnya Narkhede, Anuradha Thakare, Sakshi Shitole, Ayush Dongardive, Vrushali Guldagad presented a paper on "Inteligent Application for Dog Breed Identification using Deep Learning and Machine Learning", International conference on Emerging Research in Computing, Information, Communication, Artificial Intelligence & Machine Learning (ERCICAM 2024), NMIT, Bengaluru, India on 23rd -24th February 2024. (Achieved Best Paper Award).
- 2. Pallavi Dhade published paper on "Federated Learning for Healthcare: A Comprehensive Review" in Scopus MDPI International Journal

## **Student Achievements**

1. Minal Azad excelled in her 6-month internship at Cummins India (June/July '24 to Dec '24), showcasing adaptability and proficiency across diverse projects. Her achievements reflect resilience in overcoming challenges and significant professional growth, all while receiving a monthly stipend of 20K.

## **National Science Day Celebration in PCCoE**

PCCoEs Institute's Innovation Council (IIC), celebrated **Science Day** in association with Department of Civil Engineering by a Guest Lecture on, "**Sir C.V. Raman:** Portrait of the Scientist", on 28/02/2024 by Esteemed speaker: "Dr . Dinesh Amalnerkar".

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The **poster presentation competition** on the **Indian Knowledge System** on 29/02/2024 was organized by Team PCCOE Civil Engineering Department and IKS Task-force.

## **Masters of Computer Applications (MCA)**

The MCA Student Association(MCASA) inauguration for the academic year 2023-24 marked the beginning of a new era in student leadership and community engagement. The newly elected members of MCASA are Jesse Moses(President), Prabhujyoti Singh(Vice-President), Darshini Mutyal(Treasurer), Drimesh Pendan(Secretary) and Ayush Kapse(Joint-Secretary). The chief guest for the event was Dr. Manisha Kumbhar, who graced the occasion with her presence. The event concluded with a vote of thanks, expressing gratitude to the chief guest, faculty and students for their support and participation in the inauguration ceremony. The MCASA inauguration ceremony was a memorable and inspiring event,



## 2. Workshop on cost estimation techniques in project management (COCOMO Models) (12th February)



The workshop on cost estimation techniques in project management, with a focus on COCOMO models, offered participants a comprehensive learning experience in accurately estimating project costs. Through a detailed exploration of various techniques such as parametric estimating, analogous estimating, three-point estimating, top-down estimating, and bottom-up estimating, attendees gained practical skills in forecasting and managing project expenses effectively. The workshop also delved into the application of COCOMO models, particularly in the software development realm, that provided participants with valuable insights into leveraging these models for precise cost estimation and ensuring successful project outcomes within

3. Workshop on cost estimation techniques in project management (CPM and PERT) (22nd February)

The workshop on cost estimation techniques in project management was taken by..... It focused on CPM (Critical Path Method) and PERT (Program Evaluation and Review Technique), providing participants with structured approaches for planning, scheduling, and controlling project costs. CPM is utilized to estimate the minimum project duration and resource consumption, aiding in determining project flexibility, while PERT/ Cost offers a systematic procedure for managing project costs effectively. By exploring techniques like bottom-up estimating, expert judgment, analogous estimating, and parametric estimating, participants will gain insights into accurately estimating essential project elements such as cost and scope. These methods play a vital role in enhancing project managers' ability to



## 4. Blood donation camp (20th February)

The blood donation camp was organized under the National Service Scheme (NSS) and Acharya Anandrishiji's blood bank in Pune. The event took place under the Architecture building. The camp was going on till 5:00 PM, and the event was a success, with many individuals participating in the lifesaving initiative.

The donors were: Ajinkya Raipure, Atharva Kori, Sanket Londhe, Prathamesh Hiwarkar

## 4. Trekking (25<sup>th</sup> Feb)'2024

A DONO

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#### Trip to Rareshwar.

The temple is very old and of stone structure, but it was later reconstructed in 18th century. Chhatrapati Shivaji Maharaj took the oath of Hindavi Swarajya in this temple at the age of 16 in 1645 and then created history. Its said that he had cut his little finger and taken the oath by dripping blood onto the Shivling. There is a large portrait of Shivaji Maharaj and his friends inside the temple.





निरा देवधर धरण

भोर कडे

## **Information Technology Department**

## **Faculty and Students Publications**

Sr. No.	Торіс	Name of Students/ Faculty	Achievements/Publication details	
1	<b>Paper</b> : Decentralized Storage Security: A Blockchain-Driven Solution		Best Paper Award in 6th IEEE International Conference on Emerging Smart Computing and Informatics (ESCI- 2024)	
2	<b>Paper</b> : Criminal Recognition System	Yashal Railkar, Aditi, Rohini Pise	Best Paper Award in 6th IEEE International Conference on Emerging Smart Computing and Informatics (ESCI- 2024)	
3	Pioneering automated vulnerabil- ity detection for smart contracts in blockchain using KEVM: Guardi- an ADRGAN		International Journal of Information Security(Q1)	

## **Students Achievement**





We are thrilled to announce the remarkable achievement of our talented Third-Year students from the Department of Information Technology. Gandharv Kulkarni, Madhukrishna Nipankar, and Siddhesh Chaudhari showcased their exemplary skills and expertise at the Tech-Trade event organized by the Association of Computer Engineering Students (ACES) @ D.Y.Patil College of Engineering, Akurdi, Pune, during the esteemed Tech fest, Advait.

Their dedication and hard work paid off as they clinched the prestigious **2nd rank** at the event held on

## **Parent Teacher Meet**

- A departmental faculty meeting organized a parent-teacher gathering for the parents of Second-Year, Third-Year, and Final-Year B.Tech Engineering students on February 24,2024, at 10:00 AM, which was attended by 25+ parents.
- Dr. Sonali D. Patil, the Head of the Department, Dr. Harsha Bhute, the Academic Coordinator, along with all class teachers, faculty members, and



# Praxis 2024

- PRAXIS 2024 is the flagship event of IT Department Hosted by Information Technology Students Association(ITSA) & PCCOE IEEE Student Branch in collaboration with Codechef PCCOE Chapter and PCCOE IEEE Information Theory Society Chapter.
- Praxis isn't just about winning prizes. It's about coming together, learning, and having fun
   as
   a
   community.



In total we had 9 events distributed over as:

1. Technical :

- a. The Blue Bit
- b. Enigma wars
- c. IdeaRx
- d. The Design Challenge
- 2. Gaming Events :
  - a. BGMI
  - b. Valorent
- 3. Resounding Events (Non Technical):
  - a. CrickBlitz
  - b. Zombie Havoc
  - In total we had 1200+ registrations and 2100+ Participants across states ,
  - Maharashtra, Delhi etc.
  - Guest Name
  - Inaugration
  - 1. Mr. Girish Khilari- CTO, Elliot Systems,

# Samvaad Clubs "Art Cicle": Firofiya Team 2024 Achievements



We invite papers from Academicians, PhD Research Scholars, Researchers from Industry and UG/PG students to submit original and unpublished work. Accepted papers presented at the conference will be eligible for submission for further consideration for publication in the IEEE Xplore, subject to quality naintenance and post-conference scrutiny through the Technical Program Questionnaire (TPQ) response

#### CONFERENCE TRACKS

- Signal and Image Processing
- Robotics, Control, and Automation
- Electronics and Communication Systems
- Power Systems and Renewable Energy
- VLSI & Embedded Systems
- Data Science and Big Data Analytics
- Internet of Things and Computer Networks
- Image Processing and Computer Vision
- Cognitive Computing and Machine Learning
- Information, Cyber and Network, Security
- Computer Applications and Business Mgmt.

	Early Bird	Regula
Faculty (IEEE Member)	Rs. 5500	Rs. 6000
Faculty (Non-IEEE Member)	Rs. 6000	Rs. 6500
UG/ PG / PhD Scholar (IEEE Member)	Rs. 5000	Rs. 5500
UG/ PG / PhD Scholar (Non-IEEE Member)	Rs. 5500	Rs. 6000
Corporate / Industry	Rs. 6500	Rs. 7000
International Participants	\$110	\$130

**REGISTRATION FEES** 



iccubea24@gmail.com



Vision (Non-TEE Member) le Learning Corporate / Industry Rs. 6500 Rs. Security International \$110 \$12 ness Mgmt. Participants



The Equal Opportunity Cell (EOC) of Pimpri Chinchwad College of Engineering has successfully celebrated the birth anniversary on 20<sup>th</sup> February 2024 in Institute, of the brave warrior "The Great Maratha King - Chhatrapati Shivaji Maharaj" who fought for the rights of his people.

Conference Theme: "Resilient and Adaptive Smart Technologies" (23 <sup>rd</sup> and 24 <sup>th</sup> August 2024)						
	Conference Topics					
Code Topic M1 Modelling, Simulation & Optimization Techniques M2 Soutainable Materials and Manufacturing M3 Resilient and Adaptive Design M4 Thermal and Fluid Engineering M5 Alternative and Renewable Energy M6 Smart Manufacturing M7 Sustainability in Design M8 Industry 4.0 Accepted papers of I-M in SCOPUS-indexed Cr Jo		C3 C4 C5 CM				
<ul> <li>Noti</li> <li>Subi</li> <li>Early</li> <li>Paper s</li> <li>www.ii</li> <li>PCET's</li> </ul>	Important mission of Full-Length Pag fication of acceptance of mission of Final Full-Lengt y bird Registration on or to ubmission guideline is avail 	er by Paper by In Paper by Jefore able On e of Engineer		Cell No. 3011085735 Dir. Dhirajkumar S. Lai Conference Co-Chair Cell No. 3763710463 Dr. Laxman V. Awadhani Conference Co-Chair Cell No. 335975934 Dr. Pankaj Mali – Civil Department Cell No. 3806244477 Dr. Abhay Lingayat – Mechanical Department Cell No. 3766906894		
				For more details, please visit, www.i-mace.pccoepune.com		

# मराठी राज्यभाषा गौरव दिन

मराठी भाषा गौरव दिन हा दरवर्षी <u>२७ फेब्रुवारी</u> रोजी <u>महाराष्ट्राचे</u> ज्येष्ठ कवी <u>विष्णू वामन शिरवाडकर</u> उर्फ कुसुमाग्रज यांच्या जन्मदिवशी साजरा करण्यात येतो. कुसुमाग्रज यांची महाराष्ट्रच्या सांस्कृतिक क्षेत्रामध्ये मोलाचे योगदान दिले असून <u>मराठी भाषा</u> ही ज्ञानभाषा होण्यासाठी अथक परिश्रम घेतले गेले आहेत. आपल्या मातृभाषेला गौरव म्हणून व कुसुमाग्रज यांच्या स्मृतींना अभिवादन म्हणून त्यांचा जन्मदिवस 'मराठी भाषा गौरव दिन' म्हणून साजरा करण्याचा शासन निर्णय दिनांक २१ जानेवारी, २०१३ रोजी घेण्यात आला. कुसुमाग्रजांची मराठी साहित्य क्षेत्रात नाटककार, कथाकार, कांदबरीकार, कवी आणि समीक्षक म्हणून ख्याती आहे. टीम CESA ने नुकताच मराठी भाषा दिन एका अनोख्या आणि मनापासून साजरा केला. त्यांनी विविधतेतील एकतेचे प्रतीक असलेल्या आणि महाराष्ट्राच्या समृद्ध सांस्कृतिक वारशाचा गौरव करणाऱ्या संगणक विभागातील सर्व प्राध्यापक आणि विद्यार्थांच्या मराठी स्वक्षऱ्या गोळा केल्या. माननीय संचालक डॉ. गोविंद कुलकर्णी सर यांच्या नेतृत्वाखालील एका विशेष सभेने या कार्यक्रमाला आणखी बळ दिले. या मेळाव्यादरम्यान डॉ. कुलकर्णी यांनी आपला भाषिक वारसा जतन आणि संवर्धनाच्या महत्त्वावर भर देत मराठी भाषा शिकण्याचा आणि त्यावर प्रभुत्व मिळवण्याचा त्यांचा वैयक्तिक प्रवास सांगितला. त्यांच्या प्रेरणादायी कथनाने एखादाची मुळे आत्मसात करणे आणि प्रावेशिक भाषांबद्दल खोल कौतुक वाढवणे यांचे महत्त्व अधोरेखित केले. मराठी भाषा दिनाच्या उत्सवाने आपली सामायिक ओळख जोडण्यासाठी, एकत्र येण्याच्या आणि साजरी करण्याच्या भाषेच्या सामर्थ्याची एक मार्मिक आठवण म्हणून काम केले.



दि. २७/०२/२०२४ रोजी \*मराठी भाषा गौरव दिनानिमित्त\* \*\_डायरेक्टर डॉ. गोविंद कुलकर्णी सर\_\* यांनी \*माझा वाचन प्रवास\* असा परिसंवाद आयोजित केला होता. आपल्या महाविद्यालयातील काही प्राध्यापक व वाचनाची आवड असलेले विद्यार्थी यांना हा परिसंवाद ऐकण्याचे भाग्य लाभले. डॉ. अजय गायकवाड सर यांनी परिसंवादाची सुरुवात करत सर्वांचे स्वागत केले. परिसंवादाची सुरुवात कधी झाली आणि किती वेळ गेला हे कोणाला समजलं नाही. सरांचं वाचन खरंच किती सखोल आहे याचा प्रत्यय सर्वांना आला. सरांनी आतापर्यंत जे वाचन केले त्यातील महत्त्वाची आणि मनमोहून टाकणारी अशी निवडक \*पुस्तके, कविता व कादंब-या\* यांची माहिती सर्वांना दिली. तसेच कशाप्रकारे \*नाटकाची संहिता\* लिहिली जाऊ शकते याबद्दलही सरांनी मुलांना मार्गदर्शन केले. या परिसंवादादरम्यान \*पीसीईटीने पीसीसीओई मध्ये ( रिजनल)मराठी मधून कम्प्युटर इंजीनियरिंग\* चे शिक्षण देण्याचा जो निर्णय घेतला त्याचे महत्त्व व गरज लक्षात आली.



A heart-warming gesture unfolded recently at PCCOE, orchestrated by the honorable Director, Mr. Govind Kulkarni. In a touching display of compassion and inclusivity, a special lunch was organized for physically challenged students, alongside members of Team Samvaad and the Student Council. This gathering served not only to nourish the body but also to foster a sense of belonging and camaraderie within the PCCOE community. Dr. Kulkarni's thoughtful initiative exemplifies the ethos of empathy and support that thrives within our institution. As plates were shared and stories exchanged, bonds were strengthened, and barriers dissolved, leaving an indelible mark of kindness and unity. It's moments like these that truly embody the spirit of togetherness and care, enriching the fabric of our educational journey at PCCOE.



## The Indian Knowledge System (IKS) "The Timeless Appeal of Indian Cuisine in the Modern World" ...Dr. Kanchan Khare



#### Indian Metallurgy: A Legacy of Ingenuity

Indian metallurgy stands as a testament to human ingenuity. For centuries, artisans and craftsmen mastered the art of extracting metals, alloying them, and creating intricate designs. From crafting tools and weapons to fashioning exquisite jewellery, Indian metallurgy left an indelible mark on history. Its techniques were deeply intertwined with cultural practices, architecture, and everyday life, reflecting both scientific precision and artistic finesse. Ancient Indians employed various techniques to extract metals, shaping them into useful objects. For instance, Iron Smelting. Early Vedic Age texts already mentioned metals and related concepts. The Sanskrit term "ayas" referred to metal, including copper and iron. Archaeological evidence suggests that iron working in

India may have begun as early as 1800 BCE. Sites like Malhar, Dadupur, Raja Nala Ka Tila, and Lahuradewa in Uttar Pradesh reveal iron implements from this period. By the early 13th century BCE, iron smelting was practiced on a larger scale, possibly dating back to the 16th century BCE. The Black and Red Ware culture, associated with the post-Rigvedic Vedic civilization, existed between the 12th and 9th centuries BCE.

The crucible technique is a remarkable method for producing fine or tool steel. Its earliest known use occurred in India and central Asia during the early 1st millennium CE. Southern India excelled in producing high-quality steel using this crucible technique. In this method, high-purity wrought iron, charcoal, and glass were mixed in crucibles and heated until the iron melted and absorbed carbon. The resulting high-carbon steel, known as "wootz", was exported across Asia and Europe. In this technique, a clay mold is created around a wax object. This mold is then joined to a clay cup containing metal. The resulting mold-crucible assembly is placed in a fire and heated until the metal inside becomes molten. At this point, the mold-crucible is taken out of the fire and inverted, allowing the molten metal to pour into the mold. The crucible sequesters the raw input materials from the heat source, enabling precise control over carburization (raising carbon content) or oxidation (lowering carbon content). Fluxes, such as limestone, could be added to the crucible to remove or promote Sulphur, Silicon, and other impurities, further altering the material qualities of the steel.

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In summary, ancient Indians didn't merely use metals; they elevated them as an art form, a means of survival, and a reflection of their social status and power.

OTSAV

## **PCCoEs Sport Achievements**

- 1. Heartiest Congratulations Team PCCOE Football\* for Securing "Second Place" and
- 2. Team PCCOE Volleyball\* for "Winning State Level" <u>YUVOSTAV</u>\* Volleyball Competition..



