IEEE MAGAZINE

Newsletter 2022-2023

ABOuT uS

IEEE which stands for Institute of Electrical and Electronics Engineering is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. It helps involve students and professionals within technical and local communities.

IEEE STUDENT BRANCH was established in Vishwakarma Institute of Information Technology, Pune in 2006. It is part of IEEE Region 10 that functions independently and is guided by the IEEE Pune Section. Time to time the branch indulges in organizing various different technical competitions, events, guest lectures and workshops, by eminent personalities, based on the topics which would give a feel of current technological innovations from all over the world.

➢ IEEE has:
• Over 427,000 members in more than 190 countries, more than 64 percent of whom are from outside the United States
• More than 145,000 Student members
• 344 Sections in ten geographic Regions worldwide
• 2,702 Chapters that unite local members with similar technical interests
• 3,700 Student Branches at colleges and universities in over 100 countries
• 3,625 Student Branch Chapters of IEEE technical Societies
• 634 affinity groups; IEEE affinity groups are non-technical sub-units of one or more Sections or a Council. The affinity group parent entities are the IEEE-USA Consultants Network, Young Professionals (YP), Women in Engineering (WIE), Life Members (LM), and IEEE Entrepreneurship

➢ Objectives:
• Drive global innovation through broad collaboration and the sharing of knowledge.
• Enhance public understanding of engineering and technology and pursue standards for their practical application.
• Be a trusted source of educational services and resources to support life-long learning.
• Provide opportunities for career and professional development.
• Inspire a worldwide audience by building communities that advance technical interests, inform public policy, and expand knowledge for the benefit of humanity.

➢ Organization of IEEE IEEE has a dual complementary regional and technical structure with organizational units based on geography and technical focus. It manages a separate organizational unit (IEEE-USA) which recommends policies and implements programs specifically intended to benefit the members, the profession, and the public in the United States.

ABOUT DIReCTOR AND hOD

Dr Vivek S. Deshpande, holds Bachelors and Masters of Engineering in Electronics & Telecommunications from Savitribai Phule Pune University (earlier known as University of Pune) and Doctorate from Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Maharashtra, India. He has got 31 years of experience comprising of both industry and academia. Dr Vivek S. Deshpande has worked at Vishwakarma Institute of Technology, Pune as Professor and Head of Computer Engineering Department. Dr Vivek S. Deshpande is working on many research projects related to more social and industrial problems. Dr Vivek S. Deshpande is Senior member of IEEE, Pune Section (R10, India). He chairs Education Society and Industry Relations for IEEE Pune Chapter. He is also a member of the conference committee of IEEE Pune Chapter.

Dr Vivek S. Deshpande

Dr. Shraddha Habbu, an accomplished academic and industry professional in electronics and telecommunications, holds a Ph.D. in Biomedical Signal Processing from Savitribai Phule Pune University. Her expertise in interpreting medical signals for enhanced healthcare applications is showcased through her academic journey and practical experience of 6 years in the industry, bridging theoretical knowledge with real-world applications. Currently, as the Head of Electronics and Telecommunication Department at VIIT, her esteemed role follows a notable 14-year tenure as Associate Dean Quality, emphasizing her dedication to maintaining academic standards. Additionally, she imparts her extensive knowledge as an Associate Teacher in pivotal subjects like Optical Fiber Communication, VLSI Design and Technology, VLSI Design, and Biomedical Signal Processing, reflecting her versatile capabilities. Dr. Habbu's contributions extend beyond academia, exemplified by her pioneering work in the "Non-Invasive Estimation of Blood Glucose by Optical Means and Soft Computing." Her patented innovations further underscore her problem-solving abilities, including "Non-invasive Blood Glucose Estimation by Photoplethysmography using Single Pulse Technique with Cepstral Coefficients" and "A System to Manage College Recruitment System."

Dr. Shraddha Habbu

ABOUT BRANCh COUNSELOR

Mrs. Dipti Pandit is a highly accomplished individual with a diverse educational and professional background. She has consistently demonstrated a strong commitment to academic and professional excellence throughout her career. Her educational journey commenced with a Diploma in Electronics and Telecommunication from MSBTE, which laid the foundation for her passion in the field. Subsequently, she pursued a Bachelor of Engineering in Electronics from Savitribai Phule Pune University. Eager to expand her horizons, Mrs. Pandit embarked on a Diploma in Business Management from ICFAI, a step that showcased her proactive approach towards augmenting her knowledge beyond the technical realm. Her thirst for knowledge and dedication to selfimprovement led her to achieve a Masters of Engineering in Electronics from Savitribai Phule Pune University. This advanced degree further solidified her expertise and paved the way for her current pursuit of a PhD in Electronics and Telecommunication. She garnered invaluable experience as an Electronic Engineer at Dynalec controls, where she

Mrs. Dipti Pandit

contributed her skills and insights to the development of cutting-edge technologies. Currently, Mrs. Pandit serves as an Assistant Professor at Vishwakarma Institute of Information Technology, a role that allows her to share her wealth of knowledge and industry experience with eager students. Her dedication to research and innovation is evidenced by her involvement in research projects centred around Machine Learning and Deep Learning. Mrs. Pandit's contributions extend beyond academia as the position of Branch Counsellor of IEEE VIIT Student Branch, thereby fostering an environment of creativity and innovation within the institution.

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Senior IEEE Member

Mrs. Dipti Pandit
Branch Counselor

Dr. Shraddha Habbu
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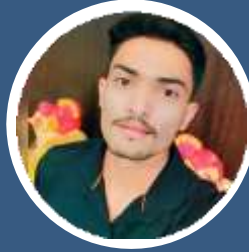
KHUSHIYA KAMBLE
Video Editor

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Associate Documentation Head

IEEE MEMBERSHIP
(BROCHURE and MEMBERSHIP'S)

➢ IEEE BROCHURE

For existing member's:
• Renew your memberships to further your career, gain access to vital networking opportunities, and receive additional special IEEE advantages, such as discounted memberships in IEEE Societies.

For new member's:
• Network with other technology professionals.
• Up to 50% discount conference registration (1,800+ conferences hosted internationally each year to choose from).
• Get involved in standard development.
• Create a professional profile that highlights your accomplishments.
• Learn about IEEE events and activities all throughout the world.
• Get the resources and opportunities you need to keep on top of changes in technology.
• Bridge the gap between tech enthusiasts with similar interests.
• Open discussions with friends and peers who are trying to equip a skill that you possess.
• Guidance and inputs from experienced people to resolve our doubts and give us an edge in grasping the concept.
• Staying updated with the current tech buzz and with all that the rest of the tech aficionados are up to.
• Form a group in order to exchange and cooperate on tasks.
• IEEE Member Digital Library (over 5,600,000+ articles) and eLearning Library (400+ courses in core and emerging technologies) access is available at a member discount.
• A 35% discount on IEEE Press, Wiley-IEEE Press, and Wiley publications.
• In such a community, all it takes is our continuous presence and will to learn and help others learn.
• Join the IEEE membership as a student: https://www.ieee.org/membership/join/index.html

Benefits of IEEE Membership:
IEEE members can access information on local events and activities by signing in to IEEE Collabratec, an integrated multi-functional platform and global network of technology-focused professionals, leveraging IEEE's extensive knowledge base and community of thought-leaders. Once signed in, users can:
• Network with other technology professionals.
• Establish a professional profile highlighting your accomplishments.
• Join and participate in discussions on various technical interests.
• Create a group to share and collaborate on projects.
• Discover IEEE events and activities throughout the world.

Membership's:
• IEEE Society Membership - expands the scope and depth of your technical knowledge, expanded networks.
• IEEE Standards Membership - influence the direction and application of standards development.
• IEEE Women in Engineering Membership - promotes the entry into and retention of women in engineering programs.

For more details visit the official site which is ieee.org

➢ IEEE MEMBERSHIP'S

SR NO.	STUDENT'S NAME	MEMBERSHIP'S ID
1.	Shreeyash Kelkar	98269530
2.	Samarth Savali	99116913
3.	Rutuja Kothawade	99012448
4.	Khushiya Kamble	98951252
5.	Om Sonawane	98984485
6.	Karan Ambure	98974716
7.	Rohan Ramesh Shrotri	98950918
8.	Sanika Maruti More	98974438
9.	Tanishq Kawoor	98986817
10.	Shrinivas Kathare	98975250
11.	Mayur More	98965216
12.	Nirmiti Shivaji Bodke	98974282
13.	Madhuri Chavan	98949461
14.	Shrushti Anand Vyawahare	98976472
15.	Tushar Khobragade	98984512
16.	Rushikesh Sandeep Temkar	98949883
17.	Aditya Wayal	98949441
18.	Abhishek Deore	98972731
19.	Nagesh Kinagi	98973855
20.	Sachi Teke	98602440
21.	Sanchit Dhale	98949905
22.	Shivam Madhav Mukhede	98945462
23.	Prajwal Kutwal	98238114
24.	Ruthik Jadhav	98931415

SLT-CODE HACKATHON 2K22
(DOHA, QATAR)

The SLT-CODE Hackathon was an open-to-everyone competition interested in speech and language technologies. It was looking for different organizations to join in low-resource speech and language technology and applications activities. Teams were typically comprised of three to six people, with each group assigned a mentor. This hackathon took place on the 7th and 8th of January 2023 at the QCRI in Doha, Qatar.

We were a group of four from T.Y. ENTC: Aditya Wayal, Rutuja Kothawade, Sachi Teke and Vivek Tripathi. Students from IEEE VIIT Aditya and Sachi attended the hackathon in person, while Rutuja and Vivek participated remotely. Our project was called Speech Disfluency Detection in Children, and our mentor was Mr. Jing Su.
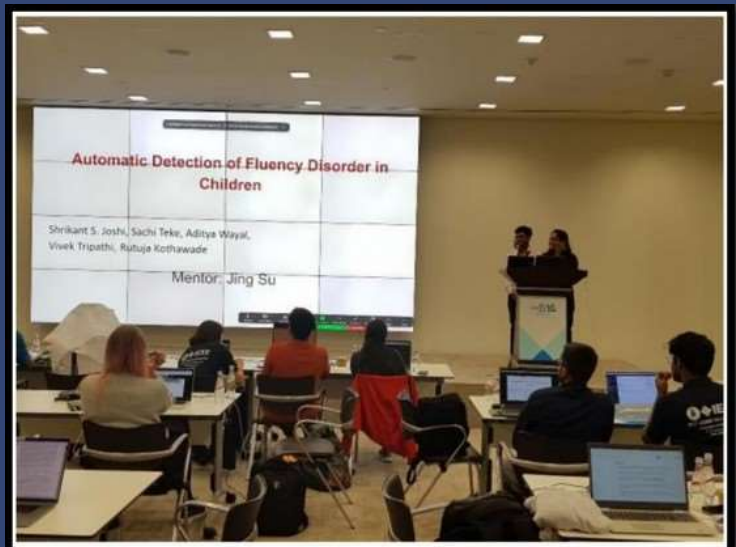

The Hackathon began at 9 a.m. on January 7th, with a brief welcoming letter from the organisers. As we worked, we received feedback and direction from other participants who had used the toolkit we were using- Kaldi. Ms. Paola Garcia, who has worked on Kaldi, had a Q&A session at 3pm (AST). She provided a brief summary of her latest work and then went on to our questions. The session then became one-on-one because other committee members were holding Q&A sessions and the attendees wanted to attend them as well. It was a fantastic learning experience because we learned so much about the toolkit and the potential of language processing in the future. It was surprising to be the youngest contestants i.e., all other participants were either Master or Ph.D. students with 2+ years of experience in this field. At the end of the day, we arranged a meeting with our professor, Dr. Shrikant Joshi, who was also a member and mentor of our group. We discussed the model and our presentation in order to perfect them.

We worked a little harder the next day of the hackathon, January 8th, because we had a presentation to give. The presentations were supposed to begin at 5 p.m. (AST). Each group got 6 minutes to present and 2-3 minutes to answer the judges' questions. We presented our concept, its scope, and the entire project blueprint. The judges' only query was, "How will we detect the disfluency?" to which our professor (Mr. Joshi) eagerly responded. There was a total of 18 presentations; some groups demonstrated while others described the entire concept was, "How will we detect the disfluency?" to which our professor (Mr. Joshi) eagerly responded. There was a total of 18 presentations; some groups demonstrated while others described the entire concept.

It is difficult to construct the entire model in two days, including data pre-processing, because speech data is difficult to come by and takes a long time to process. The presentations went well, and by 9 p.m., we had finished all of them and had a banquet dinner. During this time, we met Ms. Bhuvana Ramabhadran, a hackathon committee member who got us in touch with one of the judges, Ms. Athina Petropulu, the 2022 president of the IEEE Signal Processing Society. After a brief chat about our initiative and our college's local chapter, she agreed to help us in collaborating with the SPS and ensuring the success of the local chapter. Ms. Bhuvana also

assisted us in connecting with Ms. Preethi Jyoti from IIT Bombay in order to become a part of the Bhasha community, as we required children's speech data. At 9:30 p.m., the results were announced and instead of ranking, five teams were given special distinction. These teams were given the opportunity to present their work during the workshop the following day. Though we did not receive any awards, but we got into the top 20 shortlisted teams. It was a wonderful experience in which we got a firsthand glimpse at the speech community and its members, how people work, and what the future holds.

EVeNTS

1. Future Trends in Wireless Communication

Title: Hosts Seminar on Future Trends in Wireless Communication

Date: January 13, 2023

Guest: Mrs. Netra Pillay

About Event: IEEE VIIT Student Branch organized a seminar on "Preparing Engineers for Future Trends in Wireless Communication" on January 13, 2023. The event featured Mrs. Netra Pillay, an alumna of VIIT and currently a senior engineer at Qualcomm in the United States.

The seminar provided attendees with a comprehensive understanding of the latest advancements and technologies in wireless communication and their impact on various industries. Mrs. Netra Pillay discussed the technological developments shaping the field and highlighted potential career opportunities in wireless communication.

Students from various streams, professors, and faculty members attended the event. Feedback from attendees was overwhelmingly positive, with many expressing gratitude to the IEEE VIIT Student Branch for organizing the informative and engaging seminar.

The seminar hall was well-prepared, and the technical facilities met the requirements of the event. Participants registered through a provided link and were notified in advance to save the date.

Overall, the seminar was a resounding success, offering valuable insights into the future of wireless communication.

EVeNTS

2. PCB Boot Camp

Title: Hosts Seminar on PCB Boot Camp

Date: January 13, 2023

Guest: Mr. Siddhesh Ramajgol

About Event: The IEEE VIIT Student Branch organized a highly informative seminar on "PCB Designing, Different Types of Stimulations of PCB, and Career Opportunities in These Domains" on January 20, 2023. The event featured Mr. Siddhesh Ramajgol, an alumnus of VIT and currently an Application Engineer at Infineon Technologies.

The seminar aimed to provide students of the ENTC department with insights into the future of PCB designing, including trends and career opportunities in the field. Mr. Ramajgol shared his knowledge and experience, discussing the PCB design process, various types of simulations, and the skills required to excel in the industry. Real-world examples were provided, making the session engaging and interactive.

Students actively participated throughout the seminar, asking questions and seeking clarification on specific topics. They expressed their gratitude to Mr. Ramajgol for sharing valuable information and appreciated the opportunity to gain a deeper understanding of PCB design and simulation.

The classroom was well-prepared, and the technical facilities met the requirements of the event, ensuring a smooth and seamless experience for both the speaker and attendees.

The IEEE VIIT Student Branch received positive feedback from participants, who found the session highly informative and engaging. The organizers were commended for their efforts in organizing the event and providing an excellent learning opportunity.

They look forward to hosting more events of similar nature in the future, enriching the learning experiences of students.

EVeNTS

3. Big Science Project and Problem-Based Learning

Title: Hosts Seminar on Big Science Project and Problem-Based Learning

Date: January 20, 2023

Guest: Dr. Milind Diwan (Senior Scientist)l

About Event: The IEEE VIIT Student Branch organized a highly informative seminar on "Big Science Project and Problem Based Learning (PBL)" on January 20, 2023. The event featured Mr. Dr. Milind Diwan, a Senior Scientist at Brookhaven National Laboratory, as the guest speaker.
The seminar aimed to provide attendees, particularly students of the Electronics & Telecommunication branch, with a comprehensive understanding of problem-solving strategies and the implementation of PBL in the classroom.

Mr. Dr. Milind Diwan shared his expertise and discussed the PBL design process, steps, and techniques for managing group work and providing feedback.

Attendees gained insights into various examples and case studies of PBL projects used in different educational contexts, highlighting the positive outcomes achieved. The speaker also emphasized the potential benefits of PBL and the career opportunities it presents in the core Electronics domain.

The event received a significant turnout, with enthusiastic participation from students, professors, and faculty members. Attendees found the session highly informative and engaging, expressing their gratitude to the IEEE VIIT Student Branch for organizing such an enlightening event.

The organizers look forward to organizing more events in the future that promote interactive and practical learning experiences.

EVeNTS

4. "Debug Thugs" Debugging Contest

Title: IEEE VIIT Student Branch and IoT Forum Collaborate to Host "Debug Thugs" Debugging Contest
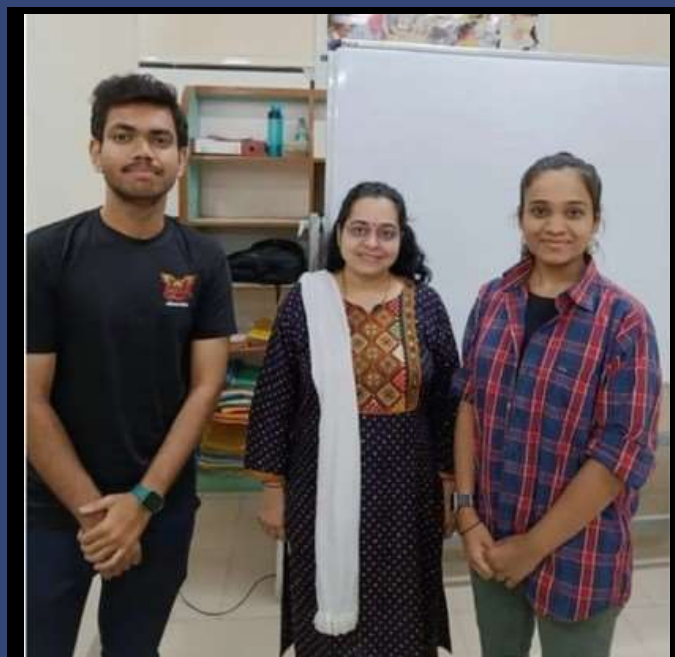
Date: February 20, 2023

Guest: Coordinator Mrs. Minal Deshmukh

About Event: The IEEE VIIT Student Branch, in collaboration with the IoT Forum VIIT, successfully organized the "Debug Thugs" event, a highly engaging and challenging debugging contest. The event took place online on the hacker rank platform and attracted participants from various departments.

The competition aimed to test participants logic-building and problem-solving skills through identifying and fixing bugs in code snippets within a specified time frame. The contest comprised seven rounds, with each round progressively increasing in difficulty to truly challenge the participants debugging abilities.

Congratulations to the winners of the "Debug Thugs" competition, Swaraj Anil Zende and Sachi Teke, for their exceptional performance.

They were awarded certificates of participation and prize money, which served as a motivating factor for all participants to give their best.

5. Product Engineering

Title: IEEE VIIT Student Branch and IIC VIIT Collaborate to Organize Seminar on Product Engineering

Date: March 9, 2023

Guest: Mr. Nikhil Deshpande

About Event: The IEEE VIIT Student Branch, in collaboration with the IIC VIIT, organized a highly informative seminar on Product Engineering on March 9th, 2023. The event took place at the VIIT campus and aimed to provide attendees with valuable insights into the field of product engineering and development.

The seminar was conducted by Mr. Nikhil Deshpande, an experienced Project Manager with an extensive background in electrical and electronics manufacturing. Mr. Deshpande shared his expertise in product design, prototyping, testing, and production, along with insights into project management, quality control, and supply chain management.

The seminar covered various topics related to product engineering, including the design process, prototyping, testing, and production. Mr. Deshpande emphasized the importance of product development in different industries and highlighted the necessary skills and qualities for success in this field. Real-life examples and case studies were used to provide a practical understanding of the concepts discussed.

The event attracted students from various streams and branches, as well as faculty members, who actively participated and engaged in the session. Attendees found the seminar highly informative and engaging, asking insightful questions that were addressed by Mr. Deshpande.

The IEEE VIIT Student Branch and IIC VIIT were commended for their efforts in organizing and conducting the seminar, and Mr. Deshpande received appreciation for his valuable contribution to the field of product development.

EVeNTS

6. Bio-Medical Instrumentation & Design Workshop

Title: Workshop on "Bio-Medical Instrumentation & Design"

Date: 03/04/2023 - 07/04/2023

Guest: Dr. Shraddha Habbu, Dr. Rohini Bhalerao-Panajkar, Prof. Vishal Ambhore, Prof. Dipti Pandit and IEEE Committee.

About Event: IEEE VIIT Student Branch, in collaboration with the E&TC and Mechanical Departments, recently organized a successful 5-day workshop on Bio-Medical Instrumentation & Design. The workshop, held from April 3rd to April 7th, 2023, aimed to enhance the knowledge and skills of students from SVJCT B.K.L. Walawalkar Hospital & Rural Medical College, Sawarde, Ratnagiri.

Dr. Shraddha Habbu, HOD E&TC, served as the conveyor, and Dr. Rohini Bhalerao-Panajkar, E&AS, acted as the co-conveyor. The workshop was well-coordinated by Prof. Vishal Ambhore, Assistant Professor, E&TC, and the organizing committee, which included Prof. Dipti Pandit, Branch Counsellor IEEE-VIIT, Mr. Shreeyash Kelkar, Chairperson IEEE-VIIT, and Mr. Mayur More, Joint-Secretary IEEE-VIIT.

The workshop provided a platform for both students and faculty members to gain insights into bio-medical instrumentation and design. Various sessions were conducted by knowledgeable speakers from VIIT, who shared their expertise and experiences. The aim was to equip the participants with valuable knowledge and skills in their field of study.

The workshop received positive feedback from the attendees, who appreciated the informative sessions and the opportunity to learn from experts in the field. The inter-college event fostered collaboration and knowledgesharing between SVJCT B.K.L. Walawalkar Hospital & Rural Medical College and VIIT.

Overall, the Bio-Medical Instrumentation & Design Workshop was a resounding success, promoting skill development and knowledge enhancement among the participants. The organizers and speakers were commended for their efforts in organizing a valuable and impactful workshop.

7. "Green frames: Capturing the Environment through Posters & Videos

Title: Organized an Event Under the guidance of IEEE Pune Section as the "Green frames: Capturing the Environment through Posters & Videos"

Date: 04/06/2023 To 07/06/2023

About Event: IEEE VIIT Student Branch, under guidance of the IEEE Pune Section, organized a remarkable event called "Green Frames: Capturing the Environment through Posters & Videos." The event aimed to celebrate the power of visual media in raising awareness about environmental issues and promoting the importance of environmental conservation. Participants were encouraged to creatively express their perspectives on environmental topics through poster designs and videos.

The event was conducted entirely online, allowing participants from various locations to showcase their talents and contribute to the cause of environmental awareness. The event spanned four days, from 4th June to 7th June 2023, during which participants had the opportunity to submit their entries via a Google Form. The results were announced on 9th June 2023, two days after the event concluded.

The Winner was Shrutika Wagh, runner ups were Pradnyanand bhadarge and Yuvraj Sankilwar. They were acknowledged for their exceptional contributions towards promoting environmental consciousness through visual media.

The Green Frames event organized by the IEEE VIIT Student Branch successfully provided a platform for participants to showcase their creativity and express their concerns for the environment. The IEEE VIIT Student Branch expresses its gratitude to all the participants for their enthusiastic involvement and dedication to the cause of environmental conservation. With such initiatives, IEEE continues to promote sustainable practices and encourage individuals to actively contribute to a greener and healthier world.

8. Quiz Competition

Title: An Intellectually stimulating Quiz Competition was Organized for spanning of two days.

Date: 22/07/2023 To 23/07/2023

Duration: 2 Hr/Day

Platform used: https://quizizz.com/?lng=en

About Event: The IEEE VIIT Student Branch successfully organized an intellectually stimulating Quiz Competition, spanning two days, on 22nd July and 23rd July 2023, with the competition starting at 11:30 AM each day.

Day 1 of the competition began with a Trial Round, acquainting participants with the Quizizz platform and its format. Following the trial, round 1 comprised 60 General Knowledge questions to assess participants' awareness across diverse topics. The second round, round 2, featured 30 questions on Logical Reasoning and Quantitative Aptitude, testing their analytical and mathematical skills.

Day 2 commenced with Round 3, which challenged participants with 12 questions on basic coding and 12 "Guess the Output" questions. They had a limited time to showcase their programming prowess and predict code outputs. The final Round, round 4, was a surprise Network Treasure Hunt, evaluating participants' problem-solving abilities.

Preparation guidelines advised participants to review General Knowledge, Logical Reasoning, Quantitative Aptitude, and coding basics in C and Python. Prerequisites required participants to create a Quizizz account and have a stable internet connection. They were also required to join Google Meet sessions using their College Mail IDs.
Winners of the competition were recognized for their outstanding performance and received well-deserved gifts. The winners of the event were as follows:
1st winner: Tejas Dnyaneshwar Mahadik
2nd winner: Om Sanjay Lahore
3rd winner: Mrinmayee Jayant Deshpande
Additionally, the winners were honoured with Certificates of Participation in appreciation of their active involvement.

9. Field Visit to Vigyan Ashram

Title: IEEE Young Professionals organized an educational field trip to Vigyan Ashram.

Date: 30/07/2023

Organizers: IEEE Young Professionals

About Event: The IEEE Young Professionals organized an educational field trip to Vigyan Ashram, in which members of the IEEE VIIT Student branch joined. Vigyan Ashram is a renowned innovation and skill development centre. The purpose of the trip was to provide participants with practical learning experiences and insights into the innovative work being carried out at Vigyan Ashram. During the visit, Mr. Dixit Sir, one of the esteemed educators at Vigyan Ashram, graciously offered a brief overview of the various projects and initiatives undertaken at the centre. Mr. Dixit Sir warmly welcomed the participants and began his introduction by highlighting the core philosophy of Vigyan Ashram. He emphasized the centre's commitment to fostering experiential learning and empowering young minds with practical skills to address real-world challenges.

Here are some of the noteworthy project descriptions:
- **Renewable Energy Solutions:** The centre has been at the forefront of research and development in renewable energy solutions.
- **Smart Agriculture Techniques:** Vigyan Ashram emphasizes the importance of modernizing agriculture practices. Student projects in this domain include smart irrigation systems, automated farm machinery, and precision agriculture techniques.
- **Innovative Electronics Projects:** Vigyan Ashram encourages students to explore the realm of electronics and embedded systems. Projects in this category include home automation systems, smart monitoring devices, and IoT-based solutions.

EVeNTS

10. Solar Practical

Title: A session was Organized to emphasize the significance of solar energy as a clean and renewable source of power.

Date: 04/08/2023

Time: 9.00 am to 12.00 pm

Guest: Prof. Mandar Khurjekar (IEEE Pune Section)

About Event: The event served as a catalyst for raising awareness about renewable energy sources among the students at Vishwakarma Vidyalaya. By witnessing the practical applications of solar energy, the attendees developed a greater appreciation for the importance of adopting eco-friendly and sustainable technologies. The guidance provided by Prof. Mandar Khurjekar and Mrs. Dipti Pandit played a pivotal role in the event's success. Their expertise and mentorship not only enriched the attendees' learning experience but also encouraged them to consider future contributions to the field of renewable energy.

The event began with an informative session, where Prof. Mandar Khurjekar and Mrs. Dipti Pandit emphasized the significance of solar energy as a clean and renewable source of power. They discussed the importance of adopting solar energy solutions to reduce dependence on conventional fossil fuels and combat climate change. Following the theoretical introduction, the practical demonstration took place. The volunteers showcased a solar panel kit, measuring the voltage output of solar panels and demonstrating how it can power an LED, effectively showing the conversion of solar energy into electrical energy.

Additionally, the volunteers explained the concept of connecting solar panels in series and parallel configurations, illustrating how these arrangements affect voltage and power output. The practical demonstration left a lasting impression on the attendees. The volunteers adeptly showcased a solar panel kit, and the excitement in the air was palpable as they revealed the measured voltages obtained from the solar panels. The participants were thrilled to witness firsthand the conversion of solar energy into electrical energy, which was ingeniously used to light an LED.

EVeNTS

11. BMI Workshop at MIT ADT

Title: A Seminar on ECG machines and the emerging AI and ML technologies in Health Care was Organized.

Date: 28/07/2023

Time: 10.00 AM to 11.30 AM.

Guest: Prof. M. J. Khurjekar (IEEE Senior Member)

About Event: A Biomedical Instrumentation workshop was held on 28th July 2023. The Seminar was on ECG machines and the emerging AI and ML technologies in Health Care. The lecture was given by Prof. M. J. Khurjekar a senior member in the subject. He gave a seminar of around 1.5 hours starting from 10.00 AM to 11.30 AM. The presentation was given in one of the seminar halls of the college. The faculties as well as the students of the respective branches attended the seminar. The seminar was also broadcasted on the college channel. After concluding the presentation, the physical demonstration of the ECG was done in the classroom. The ECG of a student was obtained and Study was done on the same.

Different combinations were tried by interchanging the terminals of the machine and valuable outputs were obtained. The study of the signals was also done using the Digital Oscilloscope. Three VIIT students from EnTC branch Tejas Wabale, Amey Panchbhayye, and Rushi Tamkhade volunteered for the practical demonstration providing great assistance to Prof. Khurjekar. The MIT Faculties Amar Buchade and Rena Pagare provided great help. The complete coordination was successful only because of the help of EnTC HOD Shraddha Habbu Mam and Faculty Smita Bhagwat Mam. The Event was a great success. The Event was also conducted under the IEEE as Prof. Khurjekar is a senior member there.

12. **3D Printing**

Title: 3D orienting workshop to empower participant with comprehensive knowledge and practical skills in this field.
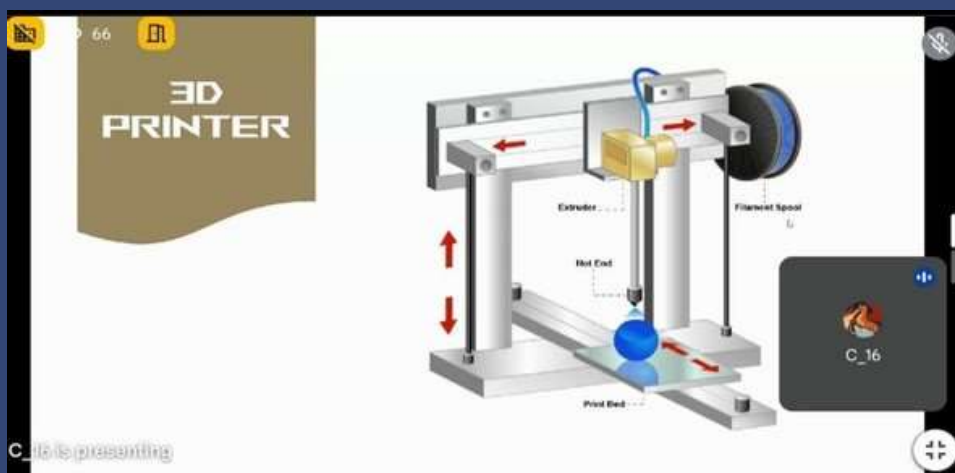
Date: 29/08/2023

Organizers: IEEE VIIT Student Branch

Speaker: Adyansh Gupta , Samina Dohadwala

About Event: The 3D Printing Workshop organized by the IEEE club at VIIT College emerged as a platform that bridged the theoretical understanding of 3D printing technologies with practical implementation. This workshop, held over the course, aimed to equip participants with a holistic understanding of various 3D printing methodologies, setup procedures, design considerations, and hands-on experiences.

An exploration of different 3D printing technologies, such as extruder-based technologies, resin and powderbased techniques, jetting technology, fused deposition modeling (FDM), and SLA (Stereolithography).In-depth discussions on the setup of 3D printers, including styles of FDM printers, hot end assemblies, manual bed leveling, and bed movement architecture. An introduction to Computer Aided Design (CAD) tools and their significance in 3D printing. Insights into Computer Aided Engineering (CAE) and Computer Aided Manufacturing (CAM), providing a comprehensive view of the product development cycle. Practical hands-on sessions and demonstrations to allow participants to interact directly with 3D printing technology. Exploration of 3D slicer settings, including customization of infill density and layer height configuration.

Participants gained insights into a diverse range of 3D printing technologies, enabling them to choose the most suitable technique for specific applications. The workshop emphasized the significance of CAD tools as foundational for 3D printing, enabling participants to create their own designs.

13. Canva Session

Title: To introduce participants to Canva, teaching fundamental design principles and practical skills.
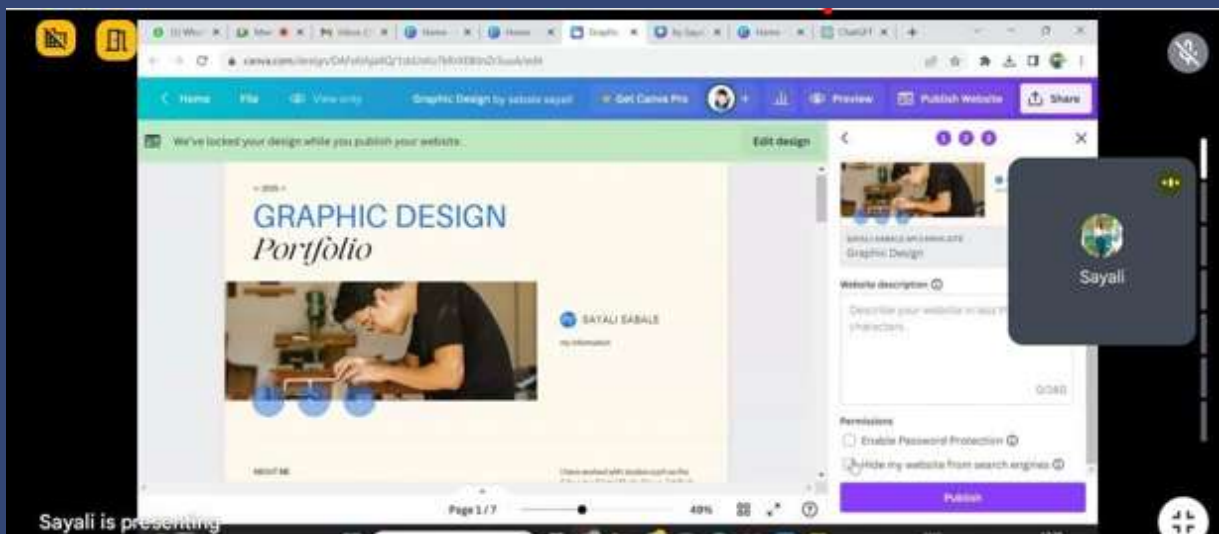
Date: 29/08/2023

Mode of Conduct: Online Mode

Organizers: IEEE VIIT Student Branch

Speakers: Sayali Sable & Saksham Singh

About Event: Canva is a versatile and user-friendly graphic design platform that empowers individuals to create captivating visuals for a wide range of purposes. With an intuitive interface and a rich library of templates, Canva enables users to craft professional-quality designs without requiring extensive design expertise. From social media graphics and presentations to posters and infographics, Canva offers a comprehensive suite of tools to bring ideas to life. Its accessibility and collaborative features make it a valuable resource for both beginners and seasoned designers, fostering creativity and visual expression in various domains.

The session's mentors were Saksham Singh and Sayali Sable. The Canva workshop marked a successful and engaging session where participants delved into the world of graphic design. Through hands-on activities and exploration of Canva's features, attendees gained valuable insights into creating visually appealing designs. The session not only equipped participants with practical skills but also fostered a sense of creativity and collaboration. As the workshop concluded, participants left with enhanced confidence in their design abilities and a new found appreciation for the capabilities of Canva in various domains.

eVeNTS

14. Teacher's Day

Title: An Event organized to honoring and appreciating the hard work, dedication, and guidance provided by our educators.

Date: 05/09/2023

Time: 3.00 PM to 05.00 PM.

Organizer: IEEE VIIT Student Branch

About Event: The event was organized by the IEEE VIIT Student Branch and was filled with various exciting activities, including three games that added a lot of fun and excitement to the celebration.

Game 1: Guess the Movie by Emojis
To kick off the celebration, we organized a "Guess the Movie by Emojis" game, where teachers had to guess movies from emojis displayed on a PowerPoint presentation. To maintain enthusiasm for the upcoming games, we also declared winners among the teachers as a fun part. The game winner was Mrs. Minal Deshmukh.

Game 2: Scribble
In this game, we provided a list of words to one of the faculty members, and they had to draw them on the board without acting or speaking. Mrs. Pallavi Deshpande was our winner in this fun activity as she guessed most of the words correctly.
As a fun part, we determined the "Favourite Teacher of the Year" by conducting a Google Form survey among SY, TY, and BTech ENTC students. Mrs. Ashwini Navghane and Mr. Vishal Ambhore received the title of favourite teachers. Before concluding, we had an antakshari round to show our gratitude and respect towards our teachers. We also presented each teacher with a rose as a token of our appreciation.
The Teacher's Day celebration was a resounding success, thanks to the active participation and enthusiasm of both students and teachersThe celebration not only allowed us to appreciate our educators but also created lasting memories that will be cherished for years to come.

15. IEEE Awareness Program

Title: To introduce students to IEEE's diverse world and its benefits.

Date: 12/09/2023 Time: 10.00 PM to 12.00 PM.

Organizer: IEEE VIIT Student Branch

Speakers : Dr. Surekha Deshmukh, Mr. Mandar Khurujkar, Ms. Shivani Bhalsakle, Ms. Arushi Bhope, Mr. Prasad Babar

About Event: To fulfill this objective, a well-structured agenda was put in place. The program commenced with Dr. Surekha Deshmukh, Chair of IEEE Pune Section, sharing her insights. It covered the benefits of IEEE membership, an introduction to IEEE activities, a focus on IEEE Extreme and societies, and featured an interactive Q & A session. Esteemed speakers, including Mandar Khurjekar, Chairman of the IEEE I&M Society Chapter of IEEE Pune Section, and student volunteers Shivani Bhalsakle and Prasad Babar, shared their expertise. Faculty members, Dr. Shraddha Habbu and Mrs. Dipti Pandit, provided guidance and support. This structured agenda effectively conveyed the program's intent and its key activities.

The session featured enlightening discussions on various facets of IEEE and its impact on academia and research. Dr. Deshmukh's seminar served as a cornerstone, offering participants insights into her role as IEEE Pune Section Chairperson and the broader contributions of IEEE to the field of technology. The elucidation of IEEE membership benefits, participation in IEEE activities, and the interactive Q & A session all served to enrich the learning experience. The contributions of guest speakers, both from within and beyond our institution, added diverse perspectives and encouraged students to explore new horizons.

WhAT IS IEEEXTReMe

IEEEXtreme is a global challenge in which teams of IEEE Student members – advised and proctored by an IEEE member, and often supported by an IEEE Student Branch – compete in a 24-hour time span against each other to solve a set of programming problems.

IEEEXtreme is IEEE's premier programming competition, bringing thousands of students from around the world together into a 24-hour event. Open to all undergraduate and graduate college students with an active IEEE student membership. The competition is hosted virtually and simultaneously around the world. Competitors are required to be proctored by a local IEEE professional member and are often supported by a local IEEE Student Branch.

History:
IEEEXtreme was created in 2006 by Marko Delimar and Ricardo Varela who, at the time, were with the IEEE Student Activities Committee. The first instance of IEEEXtreme was held in 2006 with a global participation of 44 teams and 150 contestants. The numbers more than tripled the second time it was held, in 2008, to 130 teams with 500 participants. The iteration of IEEEXtreme in 2022, enjoyed the participation of over 6376 teams, 14,683+ student competitors, 676+ student branches, and 700+ volunteers around the world.

Experience as an Ambassador In the vibrant world of IEEEXtreme, I had the incredible opportunity to serve as an ambassador for IEEEXtreme 17.0, and it was an exhilarating journey from start to finish. From introducing myself with a captivating introduction and proudly updating my LinkedIn profile, to curating a mesmerizing photo collection of past IEEEXtreme editions, I dedicated myself wholeheartedly to promoting this extraordinary competition. Engaging in informative info-sessions and conducting insightful research through discussions with previous ambassadors enabled me to chart a strategic roadmap for our Student Branch's success. Hosting enlightening info-sessions, creating dynamic work teams, and tirelessly spreading the word within our community were all part of my mission to ignite enthusiasm for IEEEXtreme 17.0. Hosting an info-session for our members, creating diverse work teams, and actively promoting IEEEXtreme within our community were also pivotal in our mission to encourage participation and success. It was a privilege to be part of this exhilarating journey, and I am deeply honored to have been awarded the title of Best Ambassador for both the months of June and July.   In sum, my experience as an IEEEXtreme Ambassador was marked by dedication and strategic efforts to make IEEEXtreme 17.0 a resounding success within our Student Branch and beyond.

IEEE SOCIETIES AND COUNCILS

➢ IEEE (Institute of Electrical and Electronics Engineers) has several societies and councils that represent different technical fields within the broader scope of engineering, technology, and computer science. These communities are organized under IEEE and allow professionals, researchers, and enthusiasts to collaborate, exchange knowledge, and advance their respective fields. Here are some of the major communities under IEEE:

1. IEEE Computer Society (IEEE-CS): Focuses on computer science and technology, including software, hardware, artificial intelligence, cybersecurity, networking, and more.

2. IEEE Communications Society (IEEE ComSoc): Deals with communication technologies and applications, including wireless, optical, satellite, and Internet communication.

3. IEEE Power & Energy Society (IEEE PES): Concentrates on electric power and energy engineering, including generation, transmission, distribution, and utilization of electrical energy.

4. IEEE Robotics and Automation Society (IEEE RAS): Specializes in robotics, automation, and related technologies, promoting advancements in autonomous systems and intelligent machines.

5. IEEE Signal Processing Society (IEEE SPS): Focuses on signal processing techniques used in various applications such as audio, image, video, speech, and communication systems.

6. IEEE Aerospace and Electronic Systems Society (IEEE AESS): Deals with aerospace and electronic systems engineering, including avionics, radar, navigation, and space systems.

7. IEEE Circuits and Systems Society (IEEE CASS): Concentrates on the theory, analysis, design, and implementation of circuits and systems.

8. IEEE Industrial Electronics Society (IEEE IES): Specializes in industrial and factory automation, power electronics, mechatronics, and related areas.

9. IEEE Control Systems Society (IEEE CSS): Focuses on the theory and application of control systems in various industries and technology fields.

10. IEEE Photonics Society (IEEE Photonics): Concentrates on photonics and optoelectronics, including optical communication, lasers, and other light-based technologies.

11. IEEE Computational Intelligence Society (IEEE CIS): Specializes in artificial intelligence, neural networks, evolutionary computing, and other computational intelligence techniques.

12. IEEE Vehicular Technology Society (IEEE VTS): Deals with vehicular technology, including advancements in wireless communications for transportation applications.

Region 1 Region 2 Region 3 Region 4 Region 5 Region 6 Region 7 Region 8 Region 9 Region 10

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ChAIRPeRSON'S WORDS

"The measure of our success is not whether we have a tough problem to deal with, but whether it is the same problem we had last year."
- Alfred N. Goldsmith, IEEE President (1967)

Dear Friends,

This is Shreeyash Kelkar, Chairperson of the IEEE VIIT Student Branch. It gives me great pleasure to address you and share my thoughts on the remarkable work done by the IEEE VIIT Student Branch. Each one of us possesses a unique passion for technology, engineering, and innovation. As it helps us and give us the opportunity to ignite that passion and let us fuel our journey of discovery and growth. In IEEE VIIT Student Branch, we are a community of bright minds, united by our shared love for knowledge and advancement. Together, we can achieve so much more than what we can accomplish individually. Here we foster a culture of collaboration, where ideas flow freely, and everyone's voice is valued. Through teamwork, we have created extraordinary solutions to real-world challenges. Our academic curriculum lays a strong foundation, but true learning extends beyond classroom walls.

IEEE VIIT Student Branch offers workshops, seminars, and hands-on experiences that provide practical insights into the ever-evolving world of technology. Step out of your comfort zone, embrace curiosity, and immerse yourself in the joy of learning. As future professionals, building a robust network is vital for personal and career growth. IEEE provides a global platform to connect with industry experts, researchers, and peers from various fields. Let's seize every networking opportunity, as it opens doors to internships, mentorships, and potential career paths.

Our technical knowledge can be a force for good. Let's unite in using technology to address societal challenges, support local initiatives, and make a positive impact on the world around us. IEEE VIIT Student Branch is not just about academic pursuits; it's about leveraging our skills to create a better tomorrow. I am excited about the incredible year ahead with all of you. Let's embrace the possibilities, support one another, and unleash our full potential. Together, we can make IEEE VIIT Student Branch a vibrant community of innovation and inspiration.

Thank you for being part of this remarkable journey. Let's create an extraordinary legacy that will inspire future generations!

With passion and enthusiasm,
Shreeyash Kelkar
Chairperson, IEEE VIIT Student Branch

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