



IEEE IMS Students Activity Report

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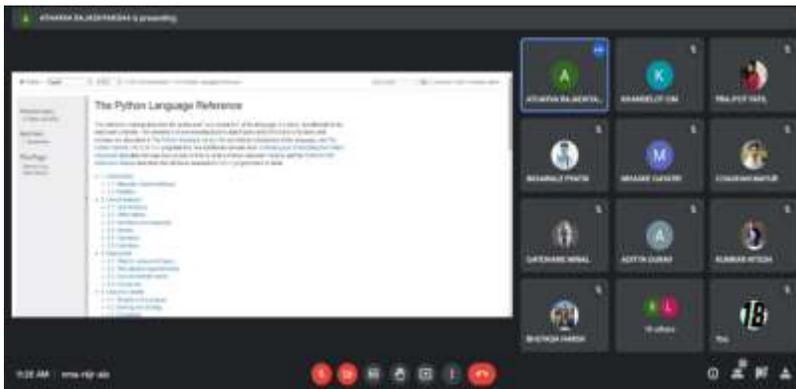
A. IEEE IMS VIT Students Chapter Activities

1. Workshop on Android App Development



Overview

A workshop was organized by The IEEE Pune section, IMS Pune chapter on Android App Development. The instructor for the event was *Atharva Rajadhyaksha* who is a TY Engineering student at Vishwakarma Institute of Technology, Pune. The workshop started with the introduction of IEEE members namely Mr. Anirudhha Barve (Treasurer IEEE IMS), Prof. M. Khurjekar (Chairman IEEE IMS), Prof. Shilpa Sondhkar, and the office bearers of the IEEE IMS student chapter namely Prajyot Patil (Chairman), Harsh Bhutada (Vice Chairman), Aditya Gurav (Treasurer), Hitesh Kumkar (Secretary).



Workshop

Android software development is the process by which applications are created for devices running the Android operating system. Android apps can be written using Java, Flutter, Kotlin, and C++ languages using the Android software

development kit (SDK), while using other languages is also possible.

Since Java is an Object oriented language, a few basics of Python programming were discussed to understand the basic concept of OOP. After the basic introduction to OOP concept was completed, the Android development was started and its basics were cleared. Also a small

application was made using Flutter where many aspects were taught like the AppBar and its properties, text formatting, layouts, etc. The session was quite interactive as students shared their difficulties in programming and were addressed by the instructor. The workshop carried out by the IEEE IMS members was attended by 25 students and it ended with a discussion session where doubts regarding android development and other programming languages were resolved by the instructor.

2. Hands On Python Workshop

Python workshop was organized by The IEEE IMS Pune section in collaboration with AI Adventures, on the 15th of March 18, 2022 on “Python Programming language”. As the event was not branch exclusive, students from E&TC, Mechanical & chemical branches also attended it enthusiastically. The event was carried out in presence of Prof. Dr. Shilpa Sondkar, Prof. Dr. Archana Chaudhari and Prof. Vivek Deshpande who made the event even more special. A total of 40 students attended the workshop coming from different branches.



Workshop Details The workshop was carried out in collaboration with AI adventures under the guidance of Prof. Vivek Deshpande who is also the Chief Operations Officer in AI Adventures. The lecturers for the event were Yatin Deshpande and Tanmay Deshpande and Prajval Kalambe happened to be the volunteer.



3. Industrial Visit of IEEE IMS students to GMRT

A batch of 14 students (all IEEE members) from the 2nd and 3rd year of the Instrumentation Department along with faculties Prof. Anil Kadu and Prof.Mandar Khurjekar visited GMRT, located near Narayangaon at Khodad.





NCRA(National Centre for Radio Astrophysics), a centre of the school of natural sciences of the TIFR (Tata Institute of Fundamental Research), has set up a unique facility, the Giant Metrewave Radio Telescope for radio astronomical research at metre wavelengths. GMRT is a very versatile Instrument for investigating a variety of radio astrophysical problems ranging from the nearby Solar systems to the edge of the observable Universe. As soon as we got to the GMRT, a security guard told us to shut down our cellphones because they would interfere with the telescope's astronomical observation.

Then, we visited the site of GMRT where a huge parabolic dish antenna was visible. GMRT consists of 30 fully enormous parabolic dishes, each measuring 45 metres in diameter and spread out over distances of up to 25 kilometres radius to collect data from various areas and combine it to create images.

A compact model of all the GMRT telescopes was demonstrated to the students at the start, and a technician on the grounds gave the students an explanation of all the facility's basic details. He began by describing what a radio telescope is and what each term in the phrase "Giant Metrewave Radio Telescope" means. He gave a brief overview of their progress. This was followed by a demonstration of how GMRT works, from data collection through the creation of a merged image in order to generate information that is understandable.

Following that, the GMRT's structural components and their functions were discussed. As they acquired inside access to the facility, the students learned about the antenna rotation and elevation control processes. Finally, the students were divided into 10 groups to observe the control panel and obtain a better understanding of how it functions. Finally, students are given a tour of the GMRT main facility, where engineers monitor and manage antenna conditions.

All of the students learned something new during the industrial visit since the explanation was informative and interactive. Students learned a lot about radio telescopes by seeing how they are used in real-life situations. In addition, they were able to see practical applications of many academic topics, which clarified their value. The children were given ample opportunity to ask questions, and their concerns were promptly addressed.



4. IEEE IMS Pune Chapter's National Level Project Competition

IEEE IMS Pune Chapter and the team successfully organized its first-ever national event conducted in an online mode. The event was organized by **IEEE IMS Student Chapter** Vishwakarma Institute of Technology, Pune in association with the **IEEE Pune section of IEEE IMS Pune chapter of the department of instrumentation engineering**. The event was all about a National Level Project Competition. Students from various parts of the country participated in the competition.

The domains for the project competition were as follows

- Sensor and sensor design
- Industry 4.0
- Smart Cities/Agriculture/Energy/Healthcare

- Embedded Systems and Measurements, HMI/Industry Protocols
- Artificial Intelligence and the Internet of Things

The total of **82** teams had registered for the competition among which **25** teams made it to the second phase and **13** groups made it to the final phase. The whole event was conducted in 3 phases. Students had to register their group to enter the competition. The first phase which was open till 10th May 2022, included the submission of the idea followed by a presentation. Various problem statements were brought by the students and their vision was to find a solution to the real-life problem faced by people. In the second phase which was held between 12th May 2022 to 20th May, 2022 students had to submit their idea in the form of a video. Students came up with a prototype of the projects. Phase 3 was the final round which was conducted on 3rd June 2022. The 3rd round was conducted online through google meet. Students demonstrated their hardware projects in front of the judges and the jury members.

Three teams were declared winner, runner up and second runner up. Prizes worth **Rs.35000/- along with IEEE memberships was awarded to the winner**. The participants were awarded a certificate of participation. Following are the details of the winners

Sr. no	Name of Student	Prize	Name of Institute
1	Luvai Darwajawala	Winner	K J Sommaiya College, Mumbai
2 3 4 5 6	Pavan Bhadane Sukhpreet Bhatti Maruti Patil Siddhant Pawar Ruchita Chaudhari	First runner up	Vishwakaram Institute of Technology Pune
7 8 9 10 11	G Arun Prabhakar R. Issac John Brighton S. Aishwarya P. Harries Pandi V J Venkatesh Babu	Second runner up	Francis Xavier Engineering College, Tamilnadu

Few snapshots of the event







National Level Project Competition

PHASE - 1	PHASE - 2	PHASE - 3
IDEA & PPT SUBMISSION	PROJECT VIDEO SUBMISSION	GRAND FINALE
Upto 05/05/22	10/05/22 to 15/05/22	On 03/06/22

ENTRY FEES:

Rs. 200/- Per group

Scan QR For Submission



Prizes:

Rs. 50,000, Certificates and Much More

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[IEEE IMS Project Competition](https://www.facebook.com/IEEE-IMS-Project-Competition)



We would like to mention our heartfelt thanks to the director of Vishwakarma Institute of Technology, **Dr. Rajesh Jalnekar** sir for providing us with this opportunity to conduct this event. We would like to thank the chairman of the IEEE IMS Pune chapter, **Prof. Mandar Khurjekar** sir, and **Girish Khilare** sir, chairman Of the IEEE Pune section for their helping hands. This wouldn't have been possible without the support of **Dr. Shilpa Sondkar** madam (HOD of Instrumentation and Control department & secretary of IMS Pune Chapter). Special thanks to our faculty guide, **Archana Chaudhari** madam, whose guidance has helped us during this event.

Thank you so much **Ajay Nagarkar**, ACCONET for sponsoring our event. Last but not least we would like to thank the entire team of IEEE IMS Student Chapter VIT Pune for executing the whole event successfully. A total of **50** people were present in the event out of which **13** were IEEE IMS student members, three IEEE Faculty members and remaining non IEEE members.