



IEEE BOMBAY SECTION

AGM 2023
22nd July 2023



IEEE Bombay Section AGM

Saurabh Mehta

Secretary, IEEE Bombay Section

22nd July 2023

Agenda

1. Welcome address by the Section Chair
2. Brief Reports by the secretary on Section Activities
3. To approve the Minutes of the AGM 2022
4. To approve the books of accounts FY 2022-23
5. To approve the budget for FY 2023-24
6. Section Award Distribution
9. Questions, answers & discussion on selected pre-submitted Questions
10. Vote of Thanks

Brief Report –Highlights of Activities

Highlighted Events (Year Aug -2022~July 2023)

- Awards (PR Bapat & FC Kohli)
- IBSSC 2022
- FDPs
- Induction Program
- Treasurer and Secretary Conclave 2023
- Technovation 2023
- Student Congress 2023
- IEEE President Visit 2023
- IC Day Celebration 2023
- LS 18 Conference
- IBSSC 2023 Conference
- K.Shankar Award 2023
- POCO 2023
- SPS Summer School 2023
- Section's Awards 2023
- STEM Phase-3
- IEEE Fellow and Life Member Felicitation

Brief Report –Highlights of Activities

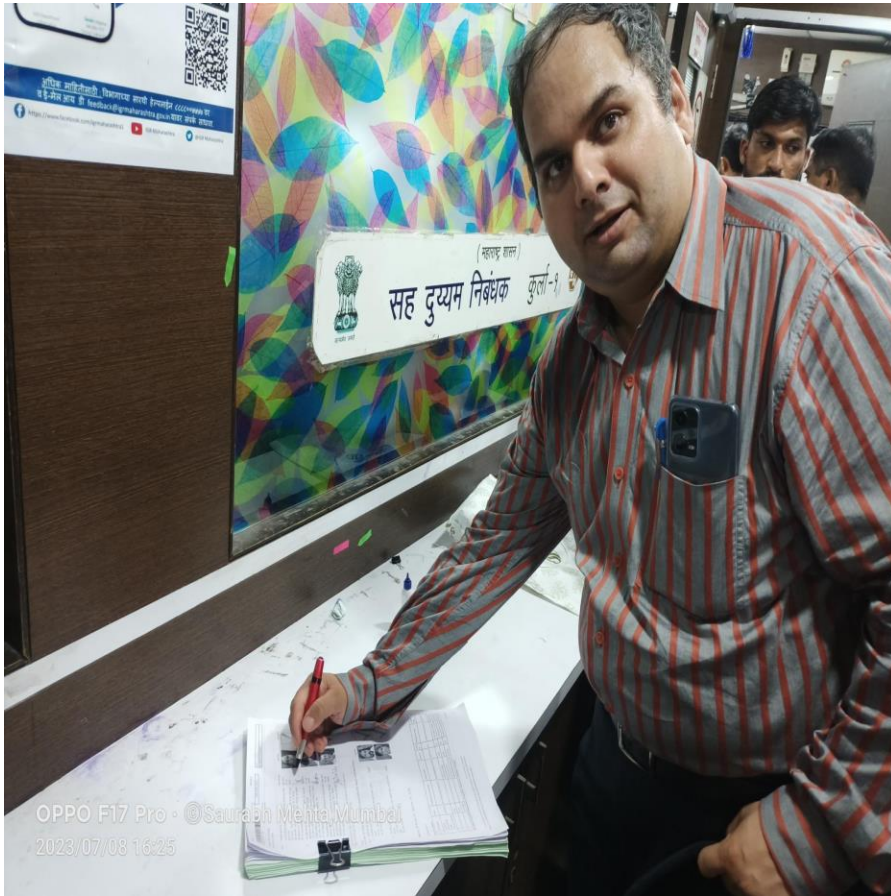
Total Events :150+ (Committees + Chapters)

- Competitions
- Talks/ Webinars
- Workshops
- Industrial Visit
- Meetings
- FDPs
- Leadership
- Conferences
- POCO
- Congress
- Day Celebration
- Newsletters

Notable Achievements (Aug 2022~July 2023)

- ▶ Many Individual Excome and Other Members are Felicitated d by various Organizations for Individual Achievements and Volunteering work at IEEE and outside the IEEE for the betterment of society at Large
- ▶ True to the Spirit of the Volunteering – not restricting the volunteering work limited only to the geography of the Bombay Section. Played a Key Role in Organizing – WRAP, ITW 2022, Joint Event with the IEEE India office, IEEE Council, and Pune Section
- ▶ 50 + NEW IEEE Student Branches, Chapters, and Affinity Groups
- ▶ Increase in the Student Branch Operating Fund by more than 70%
- ▶ Best Practices Noted at the Global Level
- ▶ More than USD 12000 grants (Committees + Chapters)

Proud Moment for IEEE Bombay Section



IEEE President Visit to IEEE Bombay Section - 12th July 2023



Glimpse of Various Activities



Glimpse of Various Activities



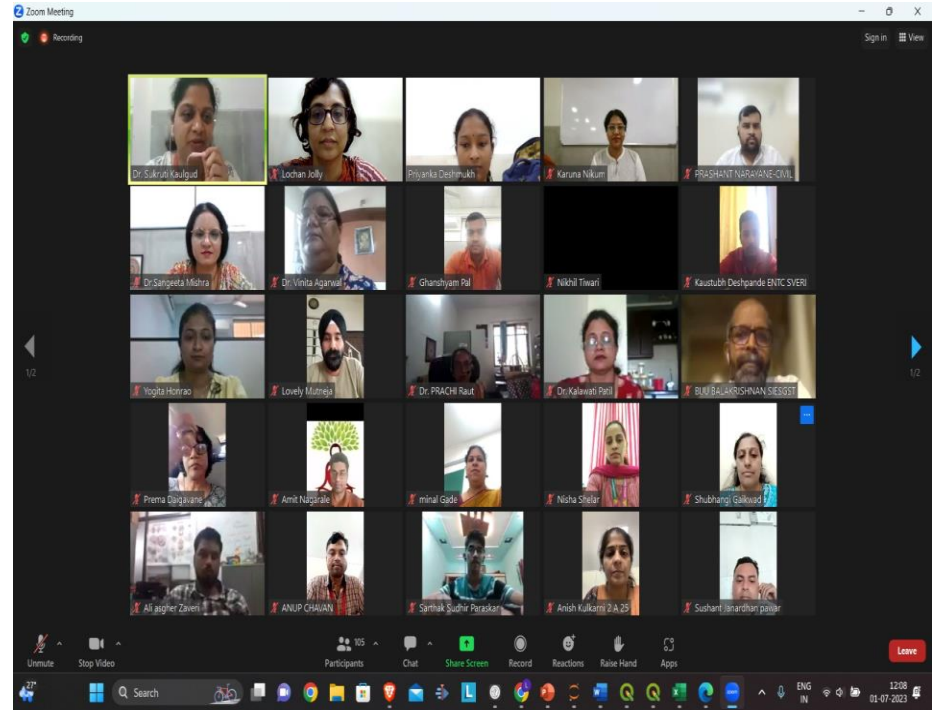
Glimpse of Various Activities



Glimpse of Various Activities



Glimpse of Various Activities





IEEE Bombay Section

Student Activities Committee
2023

Activities Conducted

1. Name of Event : **Student Branch Counselor's Meet 2023**

Date: 23rd January 2023

Venue : Online Mode

Participants : 50 +

2. Name of Event : **Student Branch Chairperson's Meet 2023**

Date: 30th January 2023

Venue : Online Mode

Participants : 75 +

3. Name of Event : **Aarambha – SAC Induction Meet 2023**

Date: 11th March 2023

Venue : MPSTME, Mumbai

Participants : 35 +

Activities Conducted

4. Name of Event : **Technovation - Project Competition Cum Exhibition**

Date: 25th March - 15th April 2023

Venue : Godavari College Of Engineering, Jalgaon, Symbiosis Institute Of Technology, Pune , Sanjivani College Of Engineering, Kopargaon, Shri Sant Gajanan Maharaj College Of Engineering, Shegaon, Priyadarshini College Of Engineering, Nagpur

Participants : 1000 +

5. Name of Event : **Award Awareness Session on IEEE MGA Student Activities Award**

Date: 28th March 2023

Venue : Online Mode

Participants : 75 +

6. Name of Event : **SMAP - Student Membership Awareness Program 2023.1**

Date: 21st April 2023

Venue : Rajendra Mane COE, Ambav ; Gharda Institute Of Tech, Lavel; Government Polytechnic, Ratnagiri)

Participants : 300+

Activities Conducted

7. Name of Event : **STEM - Basic Robotics Workshop 2023.1**

Date: 22nd April 2023

Venue : Dnyandeep Sanskrutik Bhavan Madhyamik Vidya Mandir, Kanedi Kankavali Sindhudurga

Participants : 125 +

8. Name of Event : **SMELT 4.1- Joint Student Branch Leadership Contest**

Date: 10th May 2023

Venue : MIT Alandi, Pune

Participants : 150 +

9. Name of Event **STEM - Basic Robotics Workshop 2023.2**

Date: 22nd June 2023

Venue : ADCET, Astha- Sangli

Participants : 125 +

Activities Conducted

10. Name of Event : **IEEE Bombay Section - Student, Young Professionals, Women in Engineering, and Life Member Congress 2023 (IB- SYWLC)**

Date: 23rd, 24th and 25th June 2023

Venue : ADCET, Ashta-Sangli

Participants : 225 +

11. Name of Event : **Climate Change- Expert Talk by Prof. Saifur Rahman**

Date: 12th July 2023

Venue : MPSTME, Mumbai

Participants : 100 +

12. Name of Event : **ROTA Robotics Talks 2023.1**

Date: 13th July 2023

Venue : MGM University, Rukmini Auditorium Chhatrapati Sambhajinagar.

Participants : 250 +

Upcoming Activities

- ▶ SMELT 4.2 at CSME, Aurangabad
- ▶ ROTA 2023.2 at Priyadarshini College of Engineering, Nagpur
- ▶ Hands on Robotics Workshop at MPSTME, Mumbai
- ▶ BOSCH REXROTH ROBOTICS LAB VISIT MPSTME, Mumbai
- ▶ IEEE R10 ROBOTICS COMPETITION 2023 FOR STAGE 1 at Vidyalankar Institute of Technology, Wadala

Award/Grant/Achievement won by Committee

Grants/ Funds :

- ▶ **Membership Development and Leadership Training (MDLT) - 400 USD | Matching Grant | Total Fund : 800 USD**
- ▶ **Section Student Branch Revival (SSBR) - 200 USD**
- ▶ **IEEE R10 ROBOTICS COMPETITION 2023 FOR STAGE 1 FUNDING – 500 USD | Matching Grant | Total Fund : 1000 USD**
- ▶ **Membership Development Project B – 290 USD**

Achievements:

- ▶ **50 + NEW IEEE Student Branches, Chapters and Affinity Groups in last six months**
- ▶ **Total Student Members till 18 July 2023 : 2791**
- ▶ **Student Branch Operating Funds : 7656 USD [% Increase w.r.t pervious year : 76 %**



IEEE Bombay Section

Young Professionals 2023

Activities Conducted

- SharkTank @Vidyalankar Institute of Technology
- Podcast with Mr. Chandrashekhar Wagadare (City Samosa) and Mr. Dinesh Kunwar Patel (Shalu Robot) @Vidyalankar Institute of Technology
- Creative Coalition @Sinhadgad Institute of Technology
- Artificial Mindspace @Sinhadgad Institute of Technology
- Benefits of IEEE YP Membership @Sinhadgad Institute of Technology, Technovation 2023 (RGIT) and SMELT 4.1 (MIT Alandi)
- How to build your CV - Stay ahead of the curve, Exploring Social Projects for Young Professionals, IoT for common man - Possibilities & Challenges, Hands on Training on Remote Sensing Data Processing, Industrial Visit to Patil Dairy and Rajarambapur Sugar Factory @IBSYWLC 2023
- The Internship Advantage – Online
- Navigating the Research Landscape: Strategies for success – IITRAM Ahmedabad
- Resonate: The IEEE Experience Episode 1 – Youtube Podcast

Upcoming Activities

- IEEE Region 10 Young Professionals Upskill 2023 – Bombay @ Symbiosis Institute of Technology
- STEP 2023 @Vidyalankar Institute of Technology
- 2 Days Hands on IOT Workshop @Grok STEM Learning

Award/Grant/Achievement won by Committee

- IEEE Young Professionals Local Activity Fund (750\$)
- IEEE R10 Young Professionals Upskill Fund (547.5\$ Matching Grant)
- IEEE Young Professionals STEP Fund (500\$)

IEEE Bombay Section

Educational Activities committee 2023

Education Activity Committee (EAC): Events Conducted (2023)

Events	Budget	Timeline	Status	Remark
STEM initiative – Antariksh	10-15K	BY March 31 st 2023	Approved in Feb Execom	Completed on 23/2/23. 92 school students attended Video
Volunteer training for new STEM Education initiative offline mode	10-15K	BY March 31 st 2023	A meeting conducted on 25/6/23	Budgeted requested for STEM challenge competition
R10 EAC grants	Matching grant approved in Feb Execom	BY March 28 th 2023	Applied for Volunteer meet-General Track (400\$) –not received and FDP-Theme Based Track(600\$) -received	Will complete by 1st July and reporting by 31st July
Education Week	-	April 23	Completed	Will continue with this next year also

Education Activity Committee (EAC): Events Conducted (2023)

Events	Budget	Timeline	Status	Remark
FDP-7	1.5 Lakh	BY November 30 th 2023	Invited proposals from interested Student Branches. Last date 15th March 2023. 7 proposals were approved where in 14 SBs collaborated and around 823 participants benefitted.	All completed by 15th July
STEM initiative: SINGLE PHASE	1.5 Lakh (10 SB)	BY November 30 th 2023	Invited proposals from interested Student Branches. Last date 30th March 2023. Volunteer training done and Advance tranfered	All 11-SB will complete by 30 th September 2023.

Upcoming Activities

1. An event similar to School challenge with all STEM volunteers.

Date : November 23

Budget Approved in June Execom: 10-15K prize Money which is from already approved for offline volunteer training

2. Phase II: CBP

We need to call for proposals now

Date: November to December

Budget: Balance Budget of CBP allocated

Award/Grant/Achievement won by Committee

- ▶ Sustainable development using Traditional knowledge:Capacity Building Program-300\$ from Region 10 and matching grant from IEEE Bombay section



IEEE Bombay Section

*Section Awards Committee
2022-2023*

Activities Conducted

Announcements For IEEE Bombay Section Awards

Design of Awards portal for Bombay Section with help from India Council

Reviewer Appointments, Review of Nominations, Appreciation of Reviewers

Online Meetings of the Committees for K Shankar and Other Awards

Result Preparation

Certificates Preparation and Award Ceremony

Nomination and Endorsement of Section Members for different R10 Awards

Upcoming Activities

- ▶ P R Bapat Nomination Evaluation and
- ▶ F C Kohli Lifetime Service Award
- ▶ Nominations to be sent to India Council



IEEE Bombay Section

Conference Committee
2023

Activities Conducted

- ▶ POCO 2023, on 8 June 2023 at MPSTME, Mumbai; attended by 45 participants
- ▶ Reviewing conference applications for approval – ongoing process

Upcoming Activities

- ▶ 2nd POCO 2023 – TBD (Nov/Dec 2023)
- ▶ Reviewing conference applications for approval – ongoing process
- ▶ Work related to IBSSC 2024 – TBD



IEEE Bombay Section

WOMEN IN ENGINEERING – AFFINTY GROUP 2023

Activities Conducted

- 1. Shakuntala Bhagat Lecture Series (SBLs) lecture on the subject “law and women” in offline mode under IEEE-WIE SBAG SSGMCE Shegaon, 2 March 2023.**
- 2. Women’s Day Celebration In collaboration with-SFIT 8th March 2023**
 - 1. Session 1 : Health awareness : Women and Ayurveda**
 - 2. Session 2 : Technical Session : ChatGPT**
 - 3. Session 3 : WIE AG IEEE BS: Vision & Mission and Benefits-WIE Members.**
- 3. WIE AG IEEE BS - Volunteers Induction Meet 12 March 2023**
- 4. Expert Talks on: IEEE WIE Opportunities and Women Empowerment the Occasion of International Women's Day, IEEE WIE Bombay Section and IEEE Symbiosis Institute of Technology, Pune, 13 March 2023.**
- 5. WIE AG IEEE BS in collaboration with SBA62971 - Don Bosco Inst of Tech, WIE Workshop on ‘why women deserve better designs’ mumbai, 16 march 2023**

Activities Conducted

6. IBSYWLC 2023- 23, 24 and 25 JUNE 2023 with WIE Tracks

Day 1: 24 June 2023:

- **Session 1: Keys to be successful IEEE Volunteer in Global Arena**
Speaker name: Dr. Khanita Duangchaemkarn WIE Chair, IEEE Region 10
- **Session2 : Women Safety and Empowerment,**
Speaker name: Ms. Manisha Kadam

Day 2: 24 June 2023:

- **Session1 : Women In Engineering and Women in Leadership Role**
Speaker name: Dr. Kavita Sonawane Chair, WIE IEEE BS

Day 3: 25 June 2023:

- **Session1 : A Healthy woman is an empowered woman**
Speaker name: Dr. Amruta Patil

Activities Conducted

7. Shakuntala Bhagat Lecture Series (SBLs) lecture on : Date: 27th June 2023, on

Topic: 2-D Biosignal Processing for Automation in Disease detection based on Deep Neural Networks

Speaker name: Dr. Celia Shahnaz

Upcoming Activities

1. Ideathon (paper/ Idea presentation Conference) on : Climate Change and Strategies for a Sustainable Future, 2023, to be conducted on 5th August 2023 at RAIT Nerul, Navi Mumbai.
2. Releasing first technical Magazine : “WIE तंत्र” by WIE- AG 2023 IEEE Bombay Section Frequency (Annual) - In September 2023,
3. Empowering Women in Rural Areas: Awareness Sessions on Financial Services, Healthcare, and Technology- Proposal Approved (will be conducted in September- October 2023

Award/Grant/Achievement won by Committee

- ▶ Prof. Komal Thanvi, from SSGMCE Shegaon, Winner of “Best WIE -Volunteer award for 2022.



Date: 26 January 2023

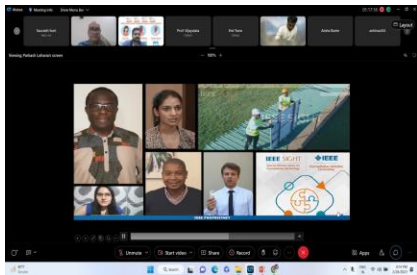
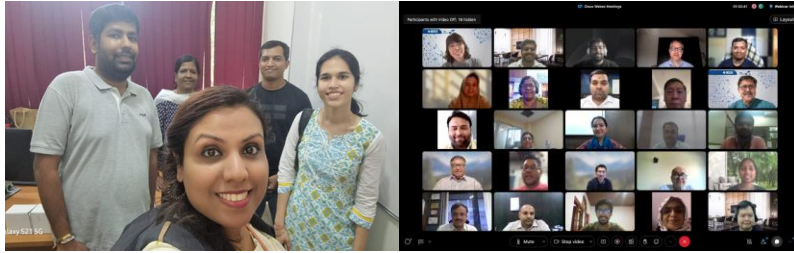
2023 Bombay SIGHT Pratham Chapter Plans

Saurabh Soni
2023 Bombay SIGHT Chapter Chair



Bombay SIGHT Chair 2023
Saurabh Soni

Activities Conducted



IEEE SIGHT Humanitarian Technologies Board **IEEE BOMBAY SECTION**

SIGHT Day 2023
SIGHT Group Social Gathering

Organized by: IEEE Bombay SIGHT Chapter



IEEE SIGHT SIGHT Day -2023

- 24 hours of SIGHT Bombay Presentation by Saurabh Soni.
- SIGHT day cake cutting at ratnabai trust primary school Navi-Mumbai.
- Drawing Competition for Primary Students.
- Women Encouraging Workshop

DATE : 28th April 2023
TIME : 2:30 pm - 4:00 pm (IST) (+5:30 UTC)

IEEE SIGHT Humanitarian Technologies Board



IEEE Region 10 **IEEE BOMBAY SECTION** **IEEE INDIA COUNCIL** **IEEE**

IEEE SIGHT Special Interest Group on Humanitarian Technology

LEARN FROM LEADER'S WEBINAR SERIES BY SIGHT CHAPTER

Emi Yano
CHAIR, IEEE R10 HTA

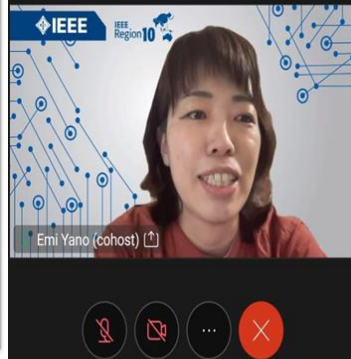
Vijayalata Reddy
TREASURER, IEEE INDIA COUNCIL

Prakash Lohana
CHAIR, SIGHT KARACHI

Objective:
How to Run Activities in Section.
Opportunity for Collaboration.
Funding Opportunity.
How NGOs & industry can benefit SIGHT Group Engagement.
How Technology Drives New Innovation.
How SDG Plays an Important Role in Humanitarian Work.

Join WebX Meeting

28th February 2023 07:30 P.M.



Upcoming Activities



- ▶ Industrial Visit to GMRT Pune.
- ▶ Divisional level awareness campaign
 1. Mumbai
 2. Goa/satara
 3. Aurangabad/Nasik
 4. Nagpur



Award/Grant/Achievement won by Committee

- ▶ Awarded with 400\$ US for SIGHT Bombay Pratham from R10 HTA
- ▶ Got 400\$ for Goodies sponsor from HTB.
- ▶ Got 2500\$ Grant to host Impact Congress in association with Gujarat Section.

On Tue, Apr 18, 2023 at 7:04 AM sampathkumar veeraraghavan <sampa4k@gmail.com> wrote:
Dear saurabh

Thanks for your wonderful efforts
HTB is glad to approve your request of 400 USD. I have discussed with Iwanga and Dr. Mohamed

@Marc, kindly guide on next steps to transfer the support to bombay sight group

Best
Sampath
Chair HTB partnership




IEEE R10 Humanitarian Sustainable Project & Volunteer Training Support Fund-2023

Congratulations

1	IEEE Gujarat Section	IEEE R10 Humanitarian Technology Conference 2023	500
2	IEEE Karachi Section / IEEE SIGHT Karachi	Building Sustainable Communities & Empowering Action against Climate Change	350
3	IEEE Lahore Section SIGHT	Strength and Confidence: Building Careers as Working Women	250
4	IEEE Malaysia Section	Integrating Sustainable Energy and Smart Agriculture: Empowering Communities and Promoting Environmental Sustainability	400
5	IEEE Manav Rachna College of Engineering / IEEE Delhi Section	Sustainathon-II	240
6	IEEE Pune Section SIGHT GROUP / IEEE Engineering in Medicine and Biology Pune Chapter	Training on CPR and Workshop on AI in healthcare	500
7	IEEE SIGHT Bombay Pratham Chapter	IEEE Bombay Section Community Enhancement Program	400
8	IEEE SIGHT Kerala Section	IEEE SIGHT Congress- Kerala	250
9	IEEE Sri Lanka Section	Empowering Communities Through Humanitarian Innovation: A Sustainable Approach for Change	500
10	IEEE Sri Sai Ram Engineering College, SMC28, System, Man and Cybernetics (SMC) / IEEE Madras Section	From Trash to Treasure: Uniting Waste Management and Mushroom Cultivation for a Sustainable Society	210
11	IEEE Tokyo Section	IEEE Humanitarian Activity Workshop in Japan 2023	400



IEEE Bombay Section

IEEE ComSoc Bombay Chapter 2023

Activities Conducted

Expert Talks : Online Seminar Series

1. Lattice Based Cryptography: A Post Quantum Cryptography by Dr Simran Chaudhary on May 20, 2023 11:00 am
2. Mobile Edge Communication: Computing and caching by Dr. Payal Bansal on May 27, 2023 11:00 am
3. Federated Learning: A Decentralized Approach to AI on June 03, 2023 on June 03, 2023 12: 00 am
4. Analogy Enriched Pedagogy by Dr. Shashikant Patil on June 03, 2023 10: 00 am
5. Data Analytics and IoT by Dr. Shashikant Patil on June 04, 10 am to 11:00 am

Special Student Track on IEEE ComSoc Awareness and Promotion

1. Why do Join IEEE and ComSoc by Dr. Shashikant Patil during IBSYWLC 2023 at ADCET Ashta Sangli, Date : June 24, 2023 at 03: 30 pm

Upcoming Activities

- ▶ Saturday Seminar Series online (Every week)
- ▶ One Day Symposium in October third week at Atlas SkillTech University (Technical Sponsorship)
- ▶ One Day Awareness Program of IEEE ComSoc at SVKM IoT Dhule and GHRIET Nagpur in August September 2023
- ▶ One Day Awareness Program of IEEE ComSoc at Shegaon Engg College and Jalgaon Engg. College in August / September 2023
- ▶ One Day Training program at Pillai College of Engineering Panvel in November 2023

Award/Grant/Achievement won by Committee

- ▶ Received 1500 \$ for Recruitment and retention from ComSoc
- ▶ Dr. Shashikant Patil Delivered a Expert Talks in Seminar Series (02) and Joint FDP of Godavari & SFIT sponsored by IEEE BS EAC
- ▶ Dr. Shashikant Patil bagged K Shankar Meritorious Paper Award in Conference Paper Category for the year 2022
- ▶ Dr. Shashikant Patil Delivered a Awareness Talk at IBSYWLC 2023 on Benefits of IEEE Membership and ComSoc
- ▶ Dr. Shashikant Patil is received recognition as a IEEE Brand Ambassador Expert



IEEE Bombay Section

MTT S
2022-23

Activities Conducted

TECHNICAL ACTIVITIES

Technical Talk – 4

Workshop - 1

ADMINISTRATIVE

Meetings-2

Event 1:



Activity: Technical Talk

Topic: Advancement in Engineering, materials and Devices for a Sustainable Future

Date: 16/02/2023

Speaker: Dr. R.S.Shine , Outstanding Scientist, Formerly RRCAT, Indor, Department of Atomic Energy

No. of Audience: 136

- ▶ Abstract of Talk:
- ▶ Talk focused on role of Electromagnetic engineering practices in electrical, mechanical, electronics, chemical and computer for Integrated Approach in Science & technology for Sustainable Future -digital life with more sophistication of human lives in all spheres of Engineering. Recent development status in Special soft magnets, Hard magnets & high energy composite, nanocrystalline permanent magnets, microwave ferrite materials, metamaterials & metaferrite for emerging, next generation application in Industry, Defense, Space, Energy, Maglev EM generators, Magnetic Flywheel- energy source & fast switching magnetic charging systems for Electric vehicles & Solid state nano magnetic switches - replacement of vacuum tubes will be discussed. It will also cover today's high technology vision- A super permanent & superconducting magnets for future sustainable applications, basic working principle of Superconducting maglev vehicle, Super fast bullet train and other important magnetic levitation applications in health, wind turbines, magnetic storage flywheel for future hybrid electric cars for the 21st century. Indigenous Maglev development strategies & live demonstration (Video) of various super magnetic train developed at RRCAT, Indore



Amrutvahini Sheti & Shikshan Vikas Sanstha's
Amrutvahini College of Engineering, Sangamner

**Department of
Electronics and Telecommunication Engineering**
In association with



IEEE MTT-S & AP-S



**IEEE Microwave Theory and Techniques Society
and
IEEE Microwave Theory and Techniques Society**

**Organizes invited talk on
"Electromagnetics - Challenges & Opportunities"**



**Invite Speaker
Dr. R. S. SHINDE**

Outstanding Scientist, RRCAT Indore
Department of Atomic Energy, Govt of India

Date : Thursday, Feb. 16th, 2023

**Venue : Sir. C.V.Raman Conference Hall, Main Building, AVCOE
www.avcoe.org**



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02/16/2023 12:05 PM GMT+05:30

GPS Map Camera

Event 2:



Topic: Fundamentals of Remote sensing and Synthetic Aperture RADAR

Date: 13/03/2023

Speaker: Dr. Sujata Kulkarni, Associate Professor, Bharatiya Vidya Bhavans' Sardar Patel Institute of Technology, Andheri(w), Mumbai 400058

Event 2:

No. of Audience: 128

- ▶ Abstract of Talk:
- ▶ Remote sensing refers to the collection of data about an object or area without making physical contact. This can be done using sensors that detect electromagnetic radiation, such as visible light, infrared radiation, or microwaves. Remote sensing has many applications, including monitoring weather patterns, tracking changes in land use and vegetation cover, and conducting surveillance and reconnaissance.
- ▶ Synthetic aperture radar (SAR) is a type of remote sensing technology that uses radio waves to create images of the Earth's surface. SAR systems emit pulses of microwave energy and measure the time it takes for the energy to bounce back after hitting the surface. By analyzing the echoes, SAR can create detailed images of the terrain, even in darkness or through clouds.



Amrutvahini Sheti & Shikshan Vikas Sanstha's

AMRUTVAHINI COLLEGE OF ENGINEERING, SANGAMNER

**Department of
Electronics and telecommunication department**

IEEE BOMBAY SECTION MTT-S CHAPTER

IN ASSOCIATION WITH

IEEE -AVCOE MTT-S AND APS CHAPTER

IEEE Microwave Theory and Techniques

And

IEEE Antenna and Propagation society

ORGANIZES INVITED TALK ON

**"FUNDAMENTALS OF REMOTE SENSING AND SYNTHETIC APERTURE
RADAR(SAR) IMAGES"**



DR. SUJATA KULKARNI

ASSOCIATE PROFESSOR, DEPARTMENT OF ELECTRONICS AND
TELECOMMUNICATION,
VICE CHAIR OF CONFERENCE OF IEEE BOMBAY SECTION,
BHARATIYA VIDYA BHAVANS' SARDAR PATEL INSTITUTE OF TECHNOLOGY,
ANDHERI(W)

DATE:-13/03/2023, MONDAY

VENUE:- SIR C. V. RAMAN CONFERENCE HALL, MAIN BUILDING, AVCOE

[HTTP://WWW.AVCOE.ORG/](http://www.avcoe.org/)



 **GPS Map Camera**

Ghulewadi, Maharashtra, India

J57M+PXR, Ghulewadi, Maharashtra 422608, India

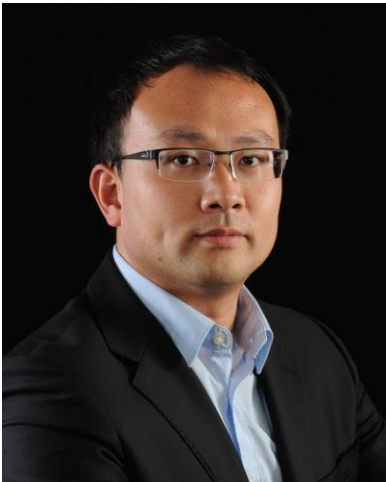
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Long 74.185115°

13/03/23 01:05 PM GMT +05:30

Google

Event 3:



Activity: Technical Talk

Topic: Portable RADAR systems for Life Activity Sensing, Anomaly Detection and Human Tracking

Date: 20/04/2023

Speaker: Li, Changzhi, Professor, Texas Tech University

Distinguished Microwave Lecturer, IEEE MTT-S

1012 Boston Ave, Electrical Engineering, Lubbock, TX, 79409-3102, USA

Event 3:

No. of Audience: 128

- ▶ Abstract of Talk:
- ▶ By sensing various life activities with microwave signals, portable radar sensors with state-of-the-art front-end and measurement algorithms have great potential to improve healthcare, security, and human-machine interface. This presentation will first provide an overview on the state-of-the-art smart radar sensors powered by advanced digital/RF beamforming, multiple-input and multiple-output (MIMO), synthetic aperture radar (SAR), inverse synthetic-aperture radar (ISAR), and deep learning. A few examples based on interferometry, Doppler, frequency-shift keying (FSK), and frequency-modulated continuous-wave (FMCW) modes at 5.8 GHz, 24 GHz, and 120 GHz will be discussed. In addition, the use of nonlinear technologies will be reported, with a focus on in-band third-order intermodulation measurement for enhanced target identification and parameter extraction. Case studies at this exciting human-microwave frontier will be given on physiological signal sensing, non-contact human-computer interface, driving behavior recognition, human tracking, and anomaly detection.
- ▶ As smart radar sensors enter the healthcare, automotive, and smart living sectors of daily life, measures to enhance its security against malicious attacks are of paramount importance. This part of the talk will discuss possible ways of malicious attacks based on spoofing and jamming to radar sensors. Then technologies that mitigate potential attacks will be unveiled to make smart radar sensors more secure and trustworthy. Finally, this talk will conclude with future industrial and academic R&D outlooks for microwave short-range life activities sensing.



Event 4:

Activity: Technical Talk

Topic: Recent Advancements at high frequency Communication

Date: 11/07/2023

Speaker: Dr.Somak Bhattacharya, Assistant Professor, Electronics Engineering Department, BHU,Varansi

Distinguished Lecturer, IEEE MTT-S



Event 4:

- ▶ Abstract of Talk:
- ▶ With the advent of the technology, there is an increase in demand of the channel bandwidth; leading to the requirement of high frequencies for communication. In this talk, some modern day aspects and trends of the high frequency communication will be presented. Emphasis will be given to applications like radio astronomical techniques, terahertz communication etc. where electromagnetic spectrum plays critical role. The applications from Indian scenario point of view will also be discussed in the talk.
- ▶ Attendees: 50
- ▶ IEEE Members:08



Amrutvahini Sheti & Shikshan Vikas Sanstha's
Amrutvahini College Of Engineering, Sangamner
 Department of
 Electronics and Telecommunication Engineering

IEEE MTT-S
 In association with
IEEE MTT-S Bombay Section
 Organizes invited talk on

"Recent Advancements in High Frequency Communication"



Dr. Somak Bhattacharyya
 Assistant Professor,
 Department of Electronics Engineering,
 Indian Institute of Technology,
 Banaras Hindu University

11th July, 2023
 11:00AM

Venue: A P J Abdul Kalam hall, Mechanical
 Engineering, AVCOE

<https://www.avcoe.org>

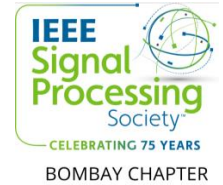


Upcoming Activities

- ▶ IEEE MTT-S AVCOE in collaboration with IEEE MTT-S BOMBAY SECTION
- ▶ Activity: Hands-on Workshop on Microwave Antenna Design
- ▶ Topic: Design, Simulation ,Fabrication and Measurement of Microwave Antennas
- ▶ Date: 20,21 and 22 October 2023.
- ▶ Speaker: Mr. Anirudh Kulkarni , Mr.Dhananjay Magar Ni2 Softwares.
- ▶ Tentative Budget = Rs. 20,000.00

Upcoming Activities

- ▶ IEEE MTT-S AVCOE in collaboration with IEEE MTT-S BOMBAY SECTION
- ▶ Hands-on Workshop and brain storming session on TaraNG – EMF Simulation Package for Electromagnetics Topic
- ▶ Date:15th and 16th September 2023
- ▶ Speaker: Mr. Swapnil Gaul, Founder and CEO NUMEREGION (TaraNG)
- ▶ Tentative Budget =Rs. 35,000.00



Signal Processing Society Progress Presentation

From 1st January 2023 to 1st July 2023

Signature Events

The poster for the SPS Seasonal School 2023 features a dark green background with a glowing green geometric pattern. At the top, it displays logos for IEEE Signal Processing Society, IEEE Section, Symbiosis Institute of Technology, and IEEE SIT Student Branch. The main title 'WELCOME TO SPS SEASONAL SCHOOL 2023' is prominently displayed in white and green. Below the title, a 'Our Speakers' section lists 16 speakers in a grid format, each with a portrait and their name and affiliation.

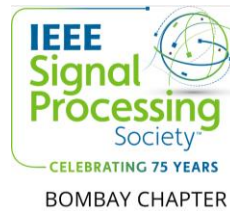
**WELCOME TO
SPS SEASONAL SCHOOL
2023**

Our Speakers

 Prof. Danilo R. Manalic Imperial College, London	 Dr. S. Satyanarajana SAS Institute of Environmental Research, Mumbai	 Prof. K V S Hari SIS, Coimbatore	 Dr. Kishu Kishore Symbiosis International University, Pune
 Dr. Manika Agarwal IIT, Delhi	 Dr. RajeshKarth Alavala Oshana Bharati Institute of Technology, Hyderabad	 Prof. Vasanth Gupta Tata Institute of Fundamental Research, Pune	 Dr. Celis Shobha Bangladesh University of Engineering and Technology (BUET) Dhaka
 Prof. Chirag N. Pasarela SCT, Coim.	 Dr. Santosh V. Chapanot Waters India/Mumbai	 Dr. Leelitha Vallamuri IIT, Hyderabad	 Dr. Anubha Gupta IIT, Coim.
 Ms. Kanchan Bhoode Product Strategy Head, Tech Mahindra	 Dr. S. Balash Kumar Technical Manager, HCL Technologies Pvt Ltd	 Dr. Pallavi Sonin Chaudhari Symbiosis National College for Women, Pune	 Dr. Shiv Prasad Kulkarni Symbiosis Institute of Technology, Pune
 Mr. Jayesh Jagtap Technology Lead, Syngenta India Pvt Ltd	 Dr. Katti C. Pathak SCT, Surat		

Event Venue – Seminar Hall, 4th Floor

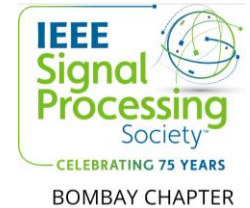
Upcoming Events



 **IEEE Region 10**
young professionals
UP SKILL 2023



IEEE Signal Processing Membership Development Activity Plan July to Dec 2023



Tentative Dates of the Events			
Month	Dates	Speakers	Mode of the Program
July 2023	28-07-2023	Dr B Satyanarayana Prof. Erik Meijering Dr Kantipudi MVV Prasad	Online
August 2023	25-08-2023	Dr Jayant Jagtap Dr Gayatri M Dr Kantipudi MVV Prasad	Offline
September 2023	29-09-2023	Dr B Satyanarayana Prof. Erik Meijering Dr Kantipudi MVV Prasad	Online
October 2023	27-10-2023	Dr B Satyanarayana Dr Richa K Dr Kantipudi MVV Prasad	Offline
November 2023	24-11-2023	Dr B Satyanarayana Prof. Erik Meijering Dr Kantipudi MVV Prasad	Online
December 2023	29-12-2023	Dr Jayant Jagtap Dr Kantipudi MVV Prasad	Offline



IEEE Photonics Society Bombay Section

HALF-YEARLY REPORT (2023)



- **Successfully organized a Distinguished Lecture of 2023-24 Lecture series on '*Nanophotonics Devices for Sensing Applications*' given by Prof. Salah Obayya which was held on 13th March, 2023 in online mode in Zoom platform.**
- **Successfully organized a workshop "*Enlightenment - Workshop on Research and Applications in Photonics*" from 16th to 18th May, 2023 at Visvesvaraya National Institute of Technology (VNIT), Nagpur.**
- **Successfully organized an invited lecture by Prof. Deepa Venkitesh, IIT Madras through a webinar on 16th June, at 7 pm.**
- **Conducted Monthly meetings (Four meetings in last five months)**

Upcoming Activities

- ▶ Invited lecture by Dr. Dhruba Jyoti Biswas, Raja Ramanna Fellow, BARC on 28th July, 2023 at IIT Bombay, Physics Department.
- ▶ Going to conduct an residential '**Five-Days Hands-on Workshop on Fiber Optics**' at DIAT, Pune during 21st August – 25th August 2023 in association with IEEE Photonics Society Bombay Section, SAMEER, Mumbai and Pune Knowledge Center.
- ▶ Another IEEE Distinguished lecture by Prof. Sheng-Lung, National Taiwan University on 5th Oct., 2023

Accounts

Thank you !