

IEEE Vizag Bay Section Report 2024-2025

PART A - SECTION SUMMARY

A.1 Executive Summary –

- Section Executive Committee Member List

Dr. Abraham Varughese	Chair	ieeevizagbay@gmail.com
Sri K. V. Sriram	Vice-Chair	kvsriram@ieee.org
Dr Ch. Anil Kumar	Secretary	achepala01@ieee.org
Md. Khwaja Muinuddin Chisti	Treasurer	chisti@ieee.org
Prof N. Deepika Rani	Member	deepu_nivas@ieee.org
Dr. V. Sandeep	Member	sandeepv@ieee.org
Prof Lakshminarayana Sadasivuni	Past Chair	sln@ieee.org
- Section Highlights
 - Organized bi-annual section flagship conference 2024- IEEE International Conference on Intelligent Systems, Smart and Green Technologies (ICISSGT – 2024) [IEEE Conference Record: #58904]2-3 November 2024
 - Section technically sponsored conference 2024 International Conference on Social and Sustainable Innovations in Technology and Engineering (SASI-ITE) - 23-25 Feb. 2024
 - Section student branch students top performed in the IEEEExtream(4th rank globally and 1st rank in India and Top 23 ranks in 100 ranks globally)
 - Received 2023 IEEE region-10 Best membership Growth Larger Section Award
 - Second Highest voting percentage section in 2024 IEEE annual elections -award of \$200
 - IEEE ComSoc/SPS jt. Chapter is awarded certification for four years with its benefits
 - Inaugurated Student branch chapters (Computer intelligence society chapter at IEEE Swarnandhra Engineering college, and IEEE WIE AG chapter at Lendi college)
 - Conducted student branch chair and counselors meet at different districts
 - Active part in the IEEE WAMS2024 Conference hosted at IEEE Student Branch Raghu
 - Conducted membership development programs
 - Volunteers attended in various events – INDISCON2024 (Dr. SLN past chair), 12 students in AISYWLC-2024, MAPCON-2024 (Dr. PSR Choudhary, IEEE APS chair), RASEFT -2024(past chair meet Prof. SLN), R10 – India council Secretary/Treasurer Meeting (Dr. Chisti), TALE 2024 TCP chair -Dr.SLN, AISWYWLC24(Prof. SLN)
- Major Events (International, National)
 - Organized bi-annual section flagship conference 2024- IEEE International Conference on Intelligent Systems, Smart and Green Technologies (ICISSGT – 2024) [IEEE Conference Record: #58904]2-3 November 2024
 - Section technically sponsored conference 2024 International Conference on Social and Sustainable Innovations in Technology and Engineering (SASI-ITE) - 23-25 Feb. 2024
- Major Chapter Activities
 - Conducted hands on workshops and hackathons under IEEE CS chapter
 - Conducted IEEEExtream preparation and awareness programs
- Major Student and Affinity Group Activities
 - Conducted hands-on workshops on cutting edge technologies under WIE
- Awards
 - Section student branch students top performed in the IEEEExtream(4th rank globally and 1st rank in India and Top 23 ranks in 100 ranks globally)
 - Received 2023 IEEE region-10 Best membership Growth Larger Section Award
 - Second Highest voting percentage section in 2024 IEEE annual elections -award of \$200
 - IEEE ComSoc/SPS jt. Chapter is awarded certification for four years with its benefits

Section Administrative Meetings:

SEC1 meeting L31_link <https://events.vtools.ieee.org/tego/event/manage/471990>

SEC2 meeting L31_link <https://events.vtools.ieee.org/tego/event/manage/471999>

SEC3 meeting L31_link <https://events.vtools.ieee.org/tego/event/manage/472006>

SEC4 meeting L31_link <https://events.vtools.ieee.org/tego/event/manage/472017>
SEC5 meeting L31_link <https://events.vtools.ieee.org/tego/event/manage/472019>
SEC6 meeting L31_link <https://events.vtools.ieee.org/tego/event/manage/472021>

A.2 Financial Report –

- Summary (as per submitted on NetSuite)
The section account from 1st Jan, 2024 to 31st Dec, 2025 was audited. Also submitted financial reports.
- Any other financial activities - No

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

- Total number of active members in the past 3 years.
- Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members

Received 2023 IEEE region-10 Best membership Growth Larger Section Award

Conducted talks at IEEE Membership Benefits talks at various student branches of Section

Membership development stall at ICISST-2024 and SASI-ITE-2024 conference venues

29-06-2024: Benefits of IEEE Membership & Student Branch Operation Guidelines @ NSRIT IEEE Student branch – CSE Department: - Dr. Sivakumar, Chair CS -The session on "Benefits of IEEE Membership & Student Branch Operation Guidelines" highlighted IEEE membership advantages, including research access and networking. It provided insights into managing student branches effectively and utilizing IEEE resources. The discussion encouraged students to enhance their technical and leadership skills. - L31 Link: <https://events.vtools.ieee.org/m/472036>

01-10-2024 – IEEE Day Celebrations and Benefits of IEEE Membership:- Dr. Md.K.M Chisti, Treasurer IEEE Vizag Bay Section - The **IEEE Day celebrations** highlighted technological advancements and the global impact of IEEE. A session on "**Benefits of IEEE Membership**" emphasized access to research, networking opportunities, and career growth. Students were encouraged to engage in IEEE activities for professional and technical development – L31 Link: [IEEE Day celebrations and Benefits of IEEE Membership : vTools Events | vTools IEEE](https://events.vtools.ieee.org/m/472045)
L31 Link- <https://events.vtools.ieee.org/m/472045>

23-09-2024 – Godavari District IEEE Student Branches Counselors & Chairs Meetup – Prof SLN, SAC Chair -The Godavari District IEEE Student Branches Counselors & Chairs Meetup facilitated collaboration among IEEE leaders to enhance student branch activities. Discussions focused on best practices, resource utilization, and future initiatives. The event strengthened networking and leadership among student branches in the region. L31 Link: <https://events.vtools.ieee.org/m/472048>

Event Name:Members Meet & Greet Event 2024

Date: 07-12-2024 Time: 9:30AM- 4.30PM

L31 Link: <https://events.vtools.ieee.org/m/458383>

Event type: Membership development

Speaker: VIZAGBAY PES Chapter Excom Members

Description: All PES members Meet, to know the reachability and plan for the future activities of the Joint chapter.

Event Name: Best Practices for getting the Benefits of IEEE Membership

Date: 21-11-2024 Time: 6:30PM-7.30PM

L31 Link:<https://events.vtools.ieee.org/m/458953>

Event type: Administrative - Membership development

Speaker: Dr. Suresh H. Jangamshetti, Vice Chancellor - Haveri University, Karnataka

Description: Talk highlights key opportunities such as networking, access to research publications, professional development, and participation in conferences and technical communities to enhance career growth and innovation.

Event Name: Awareness Program on STEM Education for high school children

Date: 21-08-2024

Time: 11:00AM-1.00PM

L31 Link: <https://events.vtools.ieee.org/m/445368>

Event type: Technical – Membership development

Speaker: Dr V Sandeep, Asst Prof/EEE, NIT, Andhra Pradesh

Description: Talk highlights the importance of Science, Technology, Engineering, and Mathematics in shaping future careers. It focuses on fostering innovation, problem-solving skills, and interdisciplinary learning to prepare students for emerging technological advancements.

Event Name: AP-S Membership Development Programme

Date: 29 to 03 Feb 2024 Time: 09:00 AM to 05:00 PM

L31 Link: <https://events.vtools.ieee.org/m/447968>

Event Type: Professional- Membership development

Speaker: APS ExCom Members

Description: Membership Development Programme from February 29 to March 3, 2024, during IEEE WAMS-2024 at Raghu Engineering College, Visakhapatnam. Eminent experts from IEEE AP-S, NASA/JPL, IISc, IITs, and DRDO participated, engaging with students from various institutions.

B.2 Chapter Activities

- Total number of Chapters in the Section: 5 Active chapters
- Number of Chapters formed in the current year: 0
- Number of active Chapters (Chapters who have reported required number of meetings during the year): 4
- Summary of Chapter activities (Chapter wise with attachment table/information)

Vizag Bay Section Jt. Chapter, COM19/SP01 - IEEE ComSoc/SPS Joint Chapter – 6

Vizag Bay Section Chapter, AP03 - 6

Vizag Bay Section Chapter, E25 - IEEE Education Society – 6

Vizag Bay Section Chapter, CS - IEEE Computer Society Chapter, Vizag Bay Section -9

Vizag Bay Section Chapter, IEEE PELS/IAS/PES Joint Chapter(CH10944 -PEL35/IA34/PE31) – 10

Events of Vizag Bay Section Jt. Chapter, COM19/SP01 - IEEE ComSoc/SPS Joint Chapter**Event Name: AI IN MEAL ONSET DETECTION**

Date: 26 Dec 2024

Time: 07:00 PM to 08:30 PM

L31 Link: <https://events.vtools.ieee.org/m/468307>**Event Type: Professional**

Speaker: Sunil Telagam Setti is a Senior Lecturer in Electrical Engineering at the University of Gävle in Sweden

Description: AI-powered systems use data from CGMs and insulin pumps to detect meal onsets automatically, improving diabetes management by optimizing insulin delivery and reducing manual input.

Event Name: IMAGE ENHANCEMENT IN FREQUENCY DOMAIN

Date: 25 Nov 2024

Time: 08:00 PM to 09:30 PM

L31 Link: <https://events.vtools.ieee.org/m/468315>**Event Type: Professional**

Speaker: Dr. Rohit Anand, Assistant Professor, Department of ECE, G.B. Pant DSEU Okhla-I, New Delhi

Description: This talk explores frequency domain image enhancement, focusing on Fourier transform-based techniques like histogram equalization, filtering methods, and homomorphic filtering. It covers their impact on contrast, sharpness, and noise reduction, along with recent advancements and applications.

Event Name: COMPUTER AIDED DIAGNOSIS OF LIFE THREATENING DISEASES A MEDICAL IMAGE PROCESSING AND ANALYSIS BASED RESEARCH PERSPECTIVE

Date: 19 Nov 2024

Time: 07:00 PM to 09:00 PM

L31 Link: <https://events.vtools.ieee.org/m/468312>**Event Type: Professional**

Speaker: Dr. Vikrant Bhateja, Assoc. Prof. and Head of the Department, CSE &IT, V.B.S.P. University, U.P., India.

Description: This talk explores the role of medical image processing and machine learning in developing CAD systems for early disease detection. It covers key techniques, challenges, clinical integration, and their impact on healthcare.

Event Name: ARTIFICIAL NEURAL NETWORKS (ANN) IN SYNTHETIC APERTURE RADAR IMAGING FOR RANGE AND ANGLE ESTIMATION

Date: 19 Oct 2024

Time: 09:30 AM to 01:30 PM

L31 Link: <https://events.vtools.ieee.org/m/468317>**Event Type: Professional**

Speaker: Dr. Puli Kishore Kumar, Asst. Prof., Department of ECE, NIT Andhra Pradesh, India

Description: This talk explores the use of Artificial Neural Networks (ANNs) for improving range and angle estimation in SAR imaging. It covers challenges in traditional SAR processing, ANN architectures like CNNs and RNNs, and their advantages in accuracy, noise robustness, and adaptability.

Event Name: OVERVIEW AND RECENT ADVANCES IN 5G AND BEYOND 5G

Date: 28 Sep 2024 Time: 06:30 PM to 08:30 PM L31 Link: <https://events.vtools.ieee.org/m/468302>

Event Type: Professional

Speaker: Dr.M.D.Selvaraj, IIIT, Design and Manufacturing (IIITDM) Kancheepuram

Description: This talk provides an overview of 5G and beyond, covering key technologies, advancements, and future trends. It explores improvements in speed, latency, network efficiency, and emerging innovations shaping next-generation wireless communication.

Event Name: NEW CHALLENGES, OPPORTUNITIES AND LIMITATIONS IN 5G BASED PASSIVE RADARS

Date: 22 Feb 2024 Time: 08:00 PM to 09:00 PM L31 Link: <https://events.vtools.ieee.org/m/468203>

Event Type: Professional

Speaker: Prof. Piotr Samczynski, Associate Professor, WUT, Electronics and Information Technology Council.

Description: This talk explores the challenges, opportunities, and limitations of 5G-based passive radars. It discusses their potential for surveillance and sensing, issues like interference and signal processing, and advancements improving their feasibility and performance.

Events of Vizag Bay Section Chapter, E25 - IEEE Education Society

Event Name: Mastering the Art of Article and Research Proposal Writing

Date: 28 Sep 2024 Time: 09:00 AM to 04:30 PM L31 Link: <https://events.vtools.ieee.org/m/458739>

Event Type: Professional

Speaker: Dr. Chitti Babu Associate Professor, Head, , ECE, IIITDM, Kanchipuram, Tamil Nadu, India

Description: This talk covers effective strategies for article and research proposal writing, emphasizing clarity, logical structure, and audience engagement. It highlights key aspects like concise presentation, technical accuracy, problem identification, literature review, and research methodology.

Event Name: ELEVATING EXCELLENCE: The Role of Research and Publications in NIRF Rankings

Date: 01 Oct 2024 Time: 07:00 PM to 08:30 PM L31 Link: <https://events.vtools.ieee.org/m/458758>

Event Type: Professional

Speaker: Dr. T. Vamsi Nagaraju, Associate Dean (Research and Development) at SRKR Engineering College

Description: Research and publications are crucial for higher education excellence and NIRF rankings in India. High-quality research enhances institutional credibility, fosters innovation, and attracts top talent, strengthening academic and global standing.

Event Name: ORIENTATION ON INNOVATION AND STARTUP TO BUDDING ENGINEERS

Date: 05 Oct 2024 Time: 09:30 AM to 12:30 PM L31 Link: <https://events.vtools.ieee.org/m/458769>

Event Type: Professional

Speaker: Dr. M S SS Srinivas, Associate Professor, Dept of ECE, Raghu Engineering College, Visakhapatnam

Description: Innovation and startup orientations equip engineers with entrepreneurial skills, covering ideation, product development, and the startup ecosystem. Through mentorship and workshops, they foster creativity, risk-taking, and leadership in technology-driven ventures.

Event Name: PLAGIARISM AND PARAPHRASING

Date: 12 Nov 2024 Time: 07:25 PM to 08:55 PM L31 Link: <https://events.vtools.ieee.org/m/458782>

Event Type: Professional

Speaker: Dr. VVSS Sameer Chakravarthy, Professor, Dept. of ECE, Raghu Engineering College

Description: Plagiarism is using others' ideas without attribution, while paraphrasing rewords content with proper credit. Effective paraphrasing ensures originality and intellectual integrity, requiring a deep understanding of the material and proper citation.

Event Name: INNOVATIONS IN TEACHING AND LEARNING

DATE: 13 NOV 2024 TIME: 07:00 PM TO 08:30 PM L31LINK: <https://events.vtools.ieee.org/m/458838>

Event Type: Professional

Speaker: Dr. Bomma Rama Krishna, Professor & Head, Swarnandhra College of Engineering and Technology(autonomous)

Description: Innovations in teaching and learning integrate digital tools, active learning strategies, and AI-driven personalization to enhance engagement and accessibility. Techniques like flipped classrooms, gamification, and adaptive learning foster critical thinking and a student-centered approach.

Event Name: KEY CHANGES IN NAAC'S NEW BINARY ACCREDITATION SYSTEM

Date: 30 Dec 2024 Time: 06:30 PM to 08:00 PM L31 link: <https://events.vtools.ieee.org/m/458852>

Event Type: Professional

Speaker: **Dr. D. DAVID NEELS PONKUMAR**, Professor, ECE ,VelTech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology, Chennai, Tamil Nadu.

Description: NAAC's new binary accreditation system simplifies the evaluation of higher education institutions by categorizing them as "Accredited" or "Not Accredited." It enhances transparency, reduces complexity, and focuses on key aspects like quality, governance, and infrastructure, promoting continuous improvement.

Events of IEEE Computer Society Chapter, Vizag Bay Section**Event Name: A TWO DAYS WORKSHOP ON CYBER SECURITY & ETHICAL HACKING**

Date: 11 &12 Jan 2024 Time 09:30 PM to 4.32 PM L31 Link: <https://events.vtools.ieee.org/m/434770>

Event Type: Technical

Speaker: Sri. Ajinkya Lohakare, Ethical Hacker, TEDX Speaker, Josh Talk Speaker, CTO, Ditto Security, Mumbai.

Description: Security & Ethical Hacking: Footprinting and Reconnaissance (Module 1) covers essential reconnaissance techniques, including Nslookup, Whois, Shodan, Maltego, Httrack, The Harvester, Recon-ng, and social engineering for gathering intelligence on targets.

Event Name: UNSECURED IN CYBERSPACE: CYBER SECURITY-->CYBER ASSURANCE

Date: 16 May 2024 Time: 05:30 PM to 07:30 PM L31 Link: <https://events.vtools.ieee.org/m/467128>

Event Type: Technical

Speaker: Prof. Dr. K Subramanian, IEEE CS DVP & IEEE CS India Area coordinator, R10(GAC), and Past chair IEEE Delhi section

Description: Talk highlights the shift from traditional cybersecurity measures to a proactive cyber assurance approach. It emphasizes risk management, resilience, and continuous monitoring to safeguard digital assets.

Event Name: Attention based Deep Learning for Image Classification

Date: 29 May 2024 Time: 06:30 PM to 08:00 PM L31 Link: <https://events.vtools.ieee.org/m/434778>

Event Type: Technical

Speaker: Dr. Ramanujam E, Assistant Professor – Grade II, Dept. of CSE, NIT Silchar, Assam, India

Description: Talk explores how attention mechanisms enhance feature extraction and model performance. It covers techniques like self-attention, transformers, and attention maps, improving accuracy in complex image recognition tasks.

Event Name: Human Activity Recognition using Inbuilt Smartphone Sensors and Smart Learning Algorithms

Date: 31 May 2024 Time: 12:00 AM to 09:00 AM L31 Link: <https://events.vtools.ieee.org/m/467125>

Event Type: Technical

Speaker: Dr. Badal Soni , Assistant Professor Grade, NIT Silchar, Assam.

Description: Talk explores how built-in sensors like accelerometers and gyroscopes, combined with machine learning, enable accurate activity detection for applications in healthcare, fitness, and behavior analysis.

Event Name: Introduction to Deep Learning Fundamentals: A Practical Approach -1

Date: 21 Jun 2024 Time: 09:20 AM to 04:20 PM L31 Link: <https://events.vtools.ieee.org/m/467137>

Event Type: Technical

Speaker: Dr. K Phani Krishna Karri, NIT-AP, India

Description: Talk covers deep network concepts, the importance of depth in neural networks, and an introduction to Convolutional Neural Networks (CNNs). Practicals: Focuses on solving regression problems using Deep Neural Networks.

Event Name: Introduction to Deep Learning Fundamentals: A Practical Approach-2

Date: 22 Jun 2024

Time: 09:00 AM to 05:00 PM

L31 Link: <https://events.vtools.ieee.org/m/467146>**Event Type: Technical**

Speaker: Prof. Dr. K Subramanian, IEEE CS DVP & IEEE CS India Area coordinator, R10(GAC), and Past chair IEEE Delhi section

Description: Talk Theory - Introduction to CNNs, Convolution and pooling layers, Applications in image recognition, Practical - Implementing a CNN for image classification

Event Name: Introduction to deep neural networks-1

Date: 26 Jul 2024

Time: 09:21 AM to 04:21 PM

L31 Link: <https://events.vtools.ieee.org/m/467150>**Event Type: Technical**

Speaker: Dr. K. Sri Phani Krishna, NIT-AP

Description: Talk covers fundamental concepts, architectures, and optimization techniques in deep learning. It explores network depth, training strategies, and practical applications, providing a comprehensive understanding of modern AI models.

Event Name: Introduction to Deep Neural Networks-2

Date: 27 Jul 2024

Time: 09:21 AM to 04:30 PM

L31 Link: <https://events.vtools.ieee.org/m/467154>**Event Type: Technical**

Speaker: Dr. K. Sri Phani Krishna, Assistant Professor, NIT-AP

Description: Talk covers Practical Implementing a CNN for image classification.

Event Name: FPGA based Hardware Acceleration

Date: 27 Sep 2024

Time: 06:28 PM to 08:00 PM

L31 Link: <https://events.vtools.ieee.org/m/467118>**Event Type: Technical**

Speaker: Kavinga Upul Ekanayaka, Head of Hardware Acceleration at ACCEL R, Colombo. Sri Lanka.

Description: Talk explores the use of Field-Programmable Gate Arrays (FPGAs) to enhance computational efficiency in AI, signal processing, and high-performance computing. It covers architecture, benefits, and real-world applications.

IEEE PELS/IAS/PES Joint Chapter, IEEE Vizag Bay Section (CH10944 -PEL35/IA34/PE31)**Event Name: The Role of Power Electronics & HVDC in the Smart Electric Grid**

Date: 23-12-2024

Time: 9:30AM-11.30AM

L31 Link: <https://events.vtools.ieee.org/m/458830>

Event type: DLP Program Technical

Speaker: Dr Ram Adapa, Technical Executive, EPRI

Description: Talk explores how advanced power conversion technologies and High Voltage Direct Current (HVDC) systems enhance grid efficiency, reliability, and renewable energy integration for a smarter, more resilient power network.

Event Name: Members Meet & Greet Event 2024

Date: 07-12-2024

Time: 9:30AM- 4.30PM

L31 Link: <https://events.vtools.ieee.org/m/458383>**Event type: Membership development**

Speaker: VIZAGBAY PES Chapter Excom Members

Description: All PES members Meet, to know the reachability and plan for the future activities of the Joint chapter.

Event Name: Applications of High Voltage: Role of Machine Learning and Research Scope for Electric Engineers

Date: 04-12-2024

Time: 6:30PM-7.30PM

L31 Link: <https://events.vtools.ieee.org/m/458362>

Event type: Technical

Speaker: Dr Srikanth Allamsetty, Asst Prof/EEE, NIT, Andhra Pradesh

Description: Talk explores how ML enhances high-voltage system diagnostics, fault prediction, and optimization. It highlights emerging research opportunities in power systems, insulation monitoring, and grid reliability.

Event Name: Droop Controlled Parallel Inverter Interfaced Microgrids in isolated operation

Date: 30-11-2024

Time: 6:30PM-7.30PM

L31 Link: <https://events.vtools.ieee.org/m/458969>

Event type: Technical

Speaker: Dr P Sudheer, CUK, Karnataka

Description: Talk explores the role of droop control in ensuring stable power sharing among parallel inverters. It covers control strategies, load balancing, and challenges in maintaining voltage and frequency stability in standalone microgrids.

Event Name: Advancing Energy Efficiency through Non-Intrusive Load Monitoring

Date: 23-11-2024 Time: 6:30PM-7.30PM L31 Link: <https://events.vtools.ieee.org/m/458973>

Event type: Professional

Speaker: Dr V L N Sastry, Founder & Director, Raadhanu Technologies, Tadepalligudem

Description: Talk explores how NILM techniques analyze power consumption patterns to identify appliance usage without additional sensors. It highlights applications in energy management, cost reduction, and sustainability.

Event Name: Best Practices for getting the Benefits of IEEE Membership

Date: 21-11-2024 Time: 6:30PM-7.30PM L31 Link: <https://events.vtools.ieee.org/m/458953>

Event type: **Administrative - Membership development**

Speaker: Dr. Suresh H. Jangamshetti, Vice Chancellor - Haveri University, Karnataka

Description: Talk highlights key opportunities such as networking, access to research publications, professional development, and participation in conferences and technical communities to enhance career growth and innovation.

Event Name: Connecting the Home Grid to the Public Grid: A Viable Solution through Virtual Synchronous Machines

Date: 26-10-2024 Time: 6:30PM-7.30PM L31 Link: <https://events.vtools.ieee.org/m/458983>

Event type: Technical

Speaker: Dr Vedantham Lakshmi Srinivas, Asst. Professor,
Department of Electrical Engineering, IIT(ISM) Dhanbad

Description: A Viable Solution through Virtual Synchronous Machines explores how Virtual Synchronous Machines (VSMs) enable seamless grid integration. It covers stability, power balancing, and improved resilience in renewable energy systems.

Event Name: Workshop on Real-time Controllers for Renewable Energy Systems

Date: 24-10-2024 Time: 2:00PM-5.00PM L31 Link: <https://events.vtools.ieee.org/m/445353>

Event type: Technical

Speaker: Dr V Sandeep, Asst Prof/EEE, NIT, Andhra Pradesh

Description: Talk focuses on the design, implementation, and optimization of real-time control strategies for efficient energy management. It covers controller architectures, integration challenges, and applications in solar, wind, and hybrid energy systems.

Event Name: A Workshop on “Challenges & Opportunities with MATLAB”

Date: 23-10-2024 Time: 10:00AM-5.00PM L31 Link: <https://events.vtools.ieee.org/m/445366>

Event type: Technical

Speaker: Dr V Sandeep, Asst Prof/EEE, NIT, Andhra Pradesh

Description: Talk explores MATLAB's capabilities in data analysis, modeling, and simulation. It covers challenges in implementation, optimization techniques, and opportunities for innovation across various engineering and scientific domains.

Event Name: Awareness Program on STEM Education for high school children

Date: 21-08-2024 Time: 11:00AM-1.00PM L31 Link: <https://events.vtools.ieee.org/m/445368>

Event type: Technical

Speaker: Dr V Sandeep, Asst Prof/EEE, NIT, Andhra Pradesh

Description: Talk highlights the importance of Science, Technology, Engineering, and Mathematics in shaping future careers. It focuses on fostering innovation, problem-solving skills, and interdisciplinary learning to prepare students for emerging technological advancements.

Vizag Bay Section Chapter,AP03

Event Name:AP-S Membership Development Programme

Date: 29 to 03 Feb 2024 Time: 09:00 AM to 05:00 PM L31 Link: <https://events.vtools.ieee.org/m/447968>

Event Type: Professional- **Membership development**

Speaker: APS ExCom Members

Description: Membership Development Programme from February 29 to March 3, 2024, during IEEE WAMS-2024 at Raghu Engineering College, Visakhapatnam. Eminent experts from IEEE AP-S, NASA/JPL, IISc, IITs, and DRDO participated, engaging with students from various institutions.

Event Name: Antenna Theory & Applications

Date: 16 Mar 2024 Time: 09:00 AM to 10:00 AM L31 Link: <https://events.vtools.ieee.org/m/472015>

Event Type: Technical

Speaker: Dr. Anil Chepala, Secretary, IEEE Vizag Bay Section

Description: Dr. Anil Chepala, Sc-E, NSTL, DRDO delivered talk on Antenna Theory and Applications and motivated students to make innovations and patents of their work and also contribute to the society with good cause.

Description: Membership Development Programme from February 29 to March 3, 2024, during IEEE WAMS-2024 at Raghu Engineering College, Visakhapatnam. Eminent experts from IEEE AP-S, NASA/JPL, IISc, IITs, and DRDO participated, engaging with students from various institutions.

Event Name: Developments of Radio Communication in India' @JNTU Vizianagaram, AP, IN

Date: 24 Aug 2024 Time: 10:00 AM to 11:30 AM L31 Link: <https://events.vtools.ieee.org/m/447967>

Event Type: Technical

Speaker: Dr. Somak Bhattacharyya, IIT (BHU), Varanasi, India

Description: Talk explored the evolution of radio communication technologies, advancements in wireless systems, and India's contributions to research and innovation in the field. The talk highlighted emerging trends, applications, and future

Event Name: Developments of Radio Communication in India' @Lendi Institute of Engineering & Technology, Vizianagaram, AP, IN

Date: 24 Aug 2024 Time: 02:00 PM to 04:00 PM L31 Link: <https://events.vtools.ieee.org/m/447965>

Event Type: Technical

Speaker: Dr. Somak Bhattacharyya, IIT (BHU), Varanasi, India

Description: Talk explores the evolution of radio technology, from early wireless communication to modern advancements in 5G, satellite communication, and spectrum management. It highlights India's contributions, research innovations, and future prospects in the field.

Event Name: Webinar on 'Critical Design of Megawatt Class Gyrotrons for Nuclear Fusion Applications'

Date: 20 Nov 2024 Time: 07:00 PM to 08:30 PM L31 Link: <https://events.vtools.ieee.org/m/447024>

Event Type: Technical

Speaker: Dr. Yuvaraj Sivasubramanian, IIITDM Kancheepuram, Tamil Nadu, India

Description: Talk explores the development of high-power gyrotrons essential for plasma heating in fusion reactors. It covers design challenges, efficiency optimization, and advancements in gyrotron technology for sustained nuclear fusion.

Event Name: AP-S Young Professional Expert Talk (Webinar) on "Intelligent Surfaces and Antennas for 6G- Opportunities and Challenges"

Date: 26 Nov 2024 Time: 07:00 PM to 08:30 PM L31 Link: <https://events.vtools.ieee.org/m/447579>

Event Type: Technical

Speaker: Dr. Amit Kumar Singh, Indian Institute of Technology Patna, India

Description: Talk explores the role of Reconfigurable Intelligent Surfaces (RIS) in overcoming mmWave propagation challenges. As 6G networks evolve beyond 5G, RIS technology enhances signal strength, coverage, and efficiency, making it a key enabler for future wireless communication.

Event Name: AP-S YP Expert Talk (Webinar) on "UAV-mounted GPR-SAR systems: a key technology for detecting buried explosive threats"

Date: 04 Dec 2024 Time: 07:00 PM to 08:30 PM L31 Link: <https://events.vtools.ieee.org/m/450226>

Event Type: Technical

Speaker: Dr. Maria Garcia-Fernandez, Queen's University Belfast, UK

Description: UAV-mounted GPR-SAR systems combine Ground Penetrating Radar (GPR) and Synthetic Aperture Radar (SAR) on UAVs to detect buried explosive threats like landmines and IEDs. This talk covers tested prototypes, their effectiveness in real-world scenarios, and future challenges in subsurface sensing.

B.3 Professional and Continuing Education Activities

Summary of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs with attachment table / information

IEEE Conference – ICISST-2024 - <https://r10.ieee.org/vizagbay/icissgt-2021/>

Technically sponsored Conference - 2024 International Conference On Social And Sustainable Innovations In Technology And Engineering Sasi-ite'24 <https://sasi.ac.in/events/2024-international-conference-on-social-and-sustainable-innovations-in-technology-and-engineering-sasi-ite24/>

B.4 Students Activities

- Total number of Student Branches in the Section: 39
- Number of Student Branches formed in the current year: 2
- Section level student activities (student congress, paper and other contests, awards etc)
- Number of active Student Branches (Student Branches who have reported required number of meetings during the year): 12

Event Name: Invited talk on 'Critical Role of Electronics in Future Generation Instrumentation Systems'

Date: 30 Mar 2024 Time: 07:00 PM to 08:00 PM L31 Link: <https://events.vtools.ieee.org/m/472020>

Event Name: Invited talk on 'Digital Image processing and its opportunities'

Date: 01 Oct 2024 Time: 10:30 AM to 11:30 AM L31 Link: <https://events.vtools.ieee.org/m/472030>

Event Name: Invited talk on 'Centers for Excellence and R&D in Colleges'

Date: 20 Dec 2024 Time: 09:30 AM to 12:30 PM L31 Link: <https://events.vtools.ieee.org/m/472046>

Event Name: Invited talk on 'Application of Electromagnetics in Defence' for Project EXPO

Date: 27 Apr 2024 Time: 09:30 AM to 12:30 PM L31 Link: <https://events.vtools.ieee.org/m/472054>

29-06-2024: **Benefits of IEEE Membership & Student Branch Operation Guidelines** @ NSRIT IEEE Student branch – CSE Department: - Dr. Sivakumar, Chair CS -The session on "Benefits of IEEE Membership & Student Branch Operation Guidelines" highlighted IEEE membership advantages, including research access and networking. It provided insights into managing student branches effectively and utilizing IEEE resources. The discussion encouraged students to enhance their technical and leadership skills. - L31 Link: <https://events.vtools.ieee.org/m/472036>

01-10-2024 – **IEEE Day Celebrations and Benefits of IEEE Membership**:- Dr. Md.K.M Chisti, Treasurer IEEE Vizag Bay Section - The **IEEE Day celebrations** highlighted technological advancements and the global impact of IEEE. A session on "**Benefits of IEEE Membership**" emphasized access to research, networking opportunities, and career growth. Students were encouraged to engage in IEEE activities for professional and technical development – L31 Link: [IEEE Day celebrations and Benefits of IEEE Membership : vTools Events | vTools IEEE](https://events.vtools.ieee.org/m/472045)
L31 Link- <https://events.vtools.ieee.org/m/472045>

23-09-2024 – **Godavari District IEEE Student Branches Counselors & Chairs Meetup** – Prof SLN, SAC Chair -The Godavari District IEEE Student Branches Counselors & Chairs Meetup facilitated collaboration among IEEE leaders to enhance student branch activities. Discussions focused on best practices, resource utilization, and future initiatives. The event strengthened networking and leadership among student branches in the region. L31 Link: <https://events.vtools.ieee.org/m/472048>

B.5 Affinity Group Activities

- Young Professional(YP) - 0
- Women In Engineering (WIE) - 6
- Life Member (LM) - 0

Vizag Bay Section Affinity Group, WIE

An amount of \$400 were granted for WIE Revitalization program and the program was successfully utilized

Event Name: Innovative Solutions for global challenges in STEM: IEEE WIE - Leading the way

Date: 06 Sep 2024 Time: 07:00 PM to 08:00 PM L31 link: <https://events.vtools.ieee.org/m/436241>

Event Type: Professional

Speaker: Dr. Sneha Kabra, Associate Professor, Department of Instrumentation, Shaheed Rajguru College of Applied Sciences for Women, (University of Delhi) Vasundhara Enclave, Delhi 110096

Description: highlights the role of IEEE Women in Engineering (WIE) in driving innovation, promoting diversity, and addressing global challenges in STEM fields through leadership, collaboration, and technological advancements.

Event Name: IEEE My99 Professional Home

Date: 13 Sep 2024 Time: 19:00 PM - 20:00 PM L31 link: <https://events.vtools.ieee.org/m/436246>

Event Type: Professional

Speaker: Prof Rajesree Jain, Symbiosis Institute of Computer Studies and Research, Pune.

Description: IEEE serves as a professional home fostering growth, networking, and innovation while promoting women empowerment through education and leadership. Understanding the difference between equality and equity ensures fair opportunities, and technology acts as a key enabler in bridging gender gaps in STEM.

Event Name: Empowering Women using IoT: Harnessing the Power of Arduino

Date: 18 to 19 Oct 2024 Time: 9.00 AM to 4.00 PM L31 link: <https://events.vtools.ieee.org/m/446536>

Event Type: Technical

Speaker: Dr. Ch. Sita Kumari, Dept. of CSE, Dr. UNVP Rajendranath, Dept. of ECE, GVPCE, Visakhapatnam

Description: Event aims to empower women, including working professionals, returning mothers, and students, by enhancing their digital skills through IoT and Arduino. This workshop provides hands-on training, enabling participants to design and implement smart solutions using Arduino and sensors.

Event Name: Empowering Women using IoT: Harnessing the Power of Raspberry Pi

Date: 25 to 26 Oct 2024 Time: 9.00 AM to 4.00 PM L31 link: <https://events.vtools.ieee.org/m/446538>

Event Type: Technical

Speaker: Sri. VVV Satyanarayana, Dept. of Physics, and Sri. T. Ravindra, Dept. of ECE, GVPCE, Visakhapatnam

Description: Event aims to empower women, including working professionals, returning mothers, and students, by enhancing their digital skills through Raspberry Pi and sensors. This hands-on workshop will equip participants with the knowledge to design and implement smart solutions.

Event title: Empowering Women with IoT: Harnessing the Power of NodeMCU

Date: 01 to 02 Nov 2024 Time: 9.00 AM to 4.00 PM L31 link: <https://events.vtools.ieee.org/m/446541>

Event Type: Technical

Speaker: Dr. D Uma Devi, CSE, Ms. P. Sravya, CSE, and Dr.G.V.Hindumathi, CSE, GVPCE, Visakhapatnam

Description: Event aims to empower women, including working professionals, returning mothers, and students, by enhancing their digital skills through NodeMCU and sensors. This hands-on workshop will equip participants with the knowledge to design and implement smart solutions.

Event Name: Design of Automated Machine Learning for RTL synthesis

Date: 28-12-2024 Time: 2.30 AM to 3.30 PM L31 link: <https://events.vtools.ieee.org/m/457708>

Event Type: Technical

Speaker: Dr. Sanath Kumar, Deputy Director MSME, Hyderabad

Description: AutoML for RTL synthesis streamlines hardware design by optimizing performance, power, and area constraints. By leveraging AI-driven techniques, AutoML automates feature selection, model tuning, and hardware mapping, enabling efficient RTL generation. This approach enhances design productivity and accelerates development cycles in digital hardware synthesis.

B.6 Awards & Recognition Activities

- Award constituted by the Section
- Please list all Awards and Recognitions received by the Section, and members in the Section, from R 10 and IEEE HQ during the year
 - Section student branch students top performed in the IEEE Xstream (4th rank globally and 1st rank in India and Top 23 ranks in 100 ranks globally)
 - Received 2023 IEEE region-10 Best membership Growth Larger Section Award
 - Second Highest voting percentage section in 2024 IEEE annual elections -award of \$200
 - IEEE ComSoc/SPS jt. Chapter is awarded certification for four years with its benefits

B.7 Communication Activities (Newsletter, Home Page, E-mail etc.)

- Newsletter (name and number of issues in the year) – starting in 2025
- Home Page of the Section (give the URL and how often it is updated): <https://r10.ieee.org/vizagbay/>
- Other means of contacts with Section members including social media what's up groups/LinkedIn/ieeecollaborate/YouTube channel

B.8 Industry Relations

- Membership growth and retention:
We are inviting experts from industry to deliver talks so that membership growth will happen
- Activities for/with industrial members
We conduct events with members which includes industry members

B.9 Humanitarian Technology Activities

- Humanitarian Technology related activities supported by the Section including collaboration with other OUs. -nill
- SIGHT Activities -nill

B.10 Community Activities

- IEEE Social activities (Family day, IEEE day, Engineers Week)”
IEEE Day celebrated virtually
Prof. SLN discussed the benefits of IEEE

L31 Link: https://events.vtools.ieee.org/tego_/event/manage/471992#13

PART C- OTHERS

C.1 Special Events

- Please briefly describe the importance of special events and the outcomes achieved
We invited Shri. Deepka Mathur to our conference who interacted with section volunteers
- Funding secured from the IEEE and external sources including sponsorships
Sponsorship received 2lakhs for our conference ICISST-24

C.2 Relationship with National and International Societies and Non-Government Organizations (NGO)

- Nature of relationship and details of any formal agreement signed -nill
- Details of joint activities - nill
- Benefit to IEEE members (for example discounts, access to technical information etc.) - nill
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.) -nill

C3. Collaboration with other IEEE Sections

- Support extended to neighboring Sections
Section Excom members acted as
Center for excellence in college – in collaboration with Bangalore section

- 12 students were nominated to participate in AISWYWLC24 from Section incentive whose travel/registrations and accommodation expenses are met by the sectionJoint activities with any other Section

C.4 Support extended to Sub-sections & Society Chapters within the Section

- Support extended for organising technical, educational and professional activities
- Joint activities for membership development
- Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section

Support to Chapters from Section from Incentive:

- Section supported financially to the chapter to organize events with maximum reach.
- Online Hand-on/Training Program” on deep learning and machine learning applications was organized by CS Chapter, APS, ComSoc/SPS chapters. The excess expenditure is met from section incentive
- 12 students were nominated to participate in AISWYWLC24 from Section incentive whose travel/registrations and accommodation expenses are met by the section

Support to SBs

- Supported many SBs for organizing their Member Development Programmes. One of the Section Exec Com members is deputed to participate and promote in IEEE
- Evaluation, adjudication of SBs events in their IEEE Events
- IEEEExtreme event promotion by many of our Section Exec Committee Members Organized IEEEExtreme mock test and top three students were rewarded.

C.5 Best Practices of your Section (which you would like to share with otherSections for the benefits of members)

- Continuous professional members meets and Section Student branch Chair counselors meet district wise

C.6 Problems anticipated and suggestions for solutions, if any

PART D - GOALS AND PLANS

D.1 Continuation of project/activity in progress and theirimplementation plans

- 2025- IEEE International Conference on Intelligent Systems, Smart and Green Technologies (ICISSGT – 2025)
- Sections CS chapters Student Congress
- Section Student Congress
- Intersection Section Events

D.2 Goals and Future Plans

Organizeinvitedtalks/workshops/eventstoimpartnewinnovationsandtheiruse,benefitstothehumanity.ImprovethetheIEEE Membershipbyorganizingeventsinremoteinstitutions,wherestudentbranchesdonotexist.remoteschoolsandenhancetech hnicalknowledgewiththepactical approach.Organizeskilldevelopmentevents.

D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.

Encouraging student and professional members funding and recognition for their contribution to societal projects. Induction programs for the first year admitted students in various fields of education.

D.4 Business Plan for Sustainable Growth and Financial Stability.

Supportresearchers,byconnecting industrypersonalfor applications,guidanceand validate theresults. Visitmoreremoteschoolsandenhancetechhnicalknowledgewiththepactical approach.Organizeskilldevelopmentevents. Visiting Industries for their support in terms of technical as well financially in organizing conference and events.



SEC-1 Meeting



ICISSTG-2024

సాంకేతిక పరిజ్ఞానంతో విస్తృత ఉపాధి అవకాశాలు

» ఏయూ వీసీ శశిభూషణరావు

వెంకోజీపాలెం, నవంబరు 2 (ఆంధ్రజ్యోతి) : ఆధునిక సాంకేతికతలను అందిపుచ్చుకోవడం ద్వారా యువత భారీ వేతనాలతో ఉపాధి అవకాశాలను సాధించవచ్చని ఏయూ వీసీ జి.శశిభూషణరావు అన్నారు. శనివారం ఏయూ ఇంజనీరింగ్ కళాశాల వైవీఎస్ మూర్తి ఆడిటోరియంలో ఐఈఈఈ ఆధ్వర్యంలో నిర్వహిస్తున్న సదస్సును ఆయన ప్రారంభించారు. ఐఈఈఈ వైజాగ్ బే సెక్షన్ ఆధ్వర్యంలో ఇంటర్నేషనల్ కాన్ఫరెన్స్ ఆన్ ఇంటెలిజెంట్ సిస్టమ్స్ స్పార్డ్ అండ్ గ్రీన్ టెక్నాలజీస్‌ను నిర్వహిస్తున్నారు. ఈ సందర్భంగా వీసీ మాట్లాడుతూ రానున్న కాలంలో 85 శాతానికి పైగా అకేషన్స్‌లో ఏఐ, ఎంఎల్ తదతర సాంకేతికతలను వినియోగించడం జరుగుతుందన్నారు. రూ.160 దేశాలతో 4.6 లక్షల మంది నభ్యులను కలిగి అతి పెద్ద సంస్థగా ఐఈఈఈ నిలుస్తోందని చెప్పారు. నేటి తరం యువత ఆధునిక సాంకేతికతను అందిపుచ్చుకోవడానికి ఎల్లవేళలా



సావనీర్‌ను ఆవిష్కరిస్తున్న వీసీ శశిభూషణరావు

సిద్ధంగా ఉండాలని సూచించారు. ఎన్ఎస్ఐఎల్ డైరెక్టర్ అబ్రహం వర్గీస్ మాట్లాడుతూ యువతను అత్యధికంగా కలిగిన దేశంగా భారత్ నిలుస్తోందన్నారు. శాస్త్రీయ ప్రగతిని సద్వినియోగం చేసుకోవాలని సూచించారు. వర్చిటీలు పరిశోధనలు, ఆవిష్కరణలకు నిలయాలుగా నిలుస్తాయన్నారు. అకడమిక్ ఇన్‌స్టిట్యూషన్స్‌లో ఆవిష్కరణలను ప్రోత్సహించాల్సిన అవసరం ఉందన్నారు. దేశీయంగా ఆవిష్కర

ణలు గణనీయంగా పెంచాలని చెప్పారు. సాంకేతికతను దిగుమతి చేసుకొనే పరిస్థితి నుంచి అభివృద్ధి చేసి ఎగుమతులు చేసే దిశగా భారత్ అడుగులు వేయాలన్నారు.

ఈ సందర్భంగా సదస్సు ప్రత్యేక సంచికను ఏయూ వీసీ ఆవిష్కరించారు. సదస్సులో సదస్సు జనరల్ చైర్ డాక్టర్ ఎన్.లక్ష్మీనారాయణ, టీపీసీ చైర్ ఆచార్య దీపికారాణి తదితరులు ప్రసంగించారు.

ICISSGT-2024



IEEE XTREME 2024 top rankers of section



Center of Excellence in Engineering Colleges: in collaboration with IEEE
Bengaluru Section



Project EXPO Invited Talk