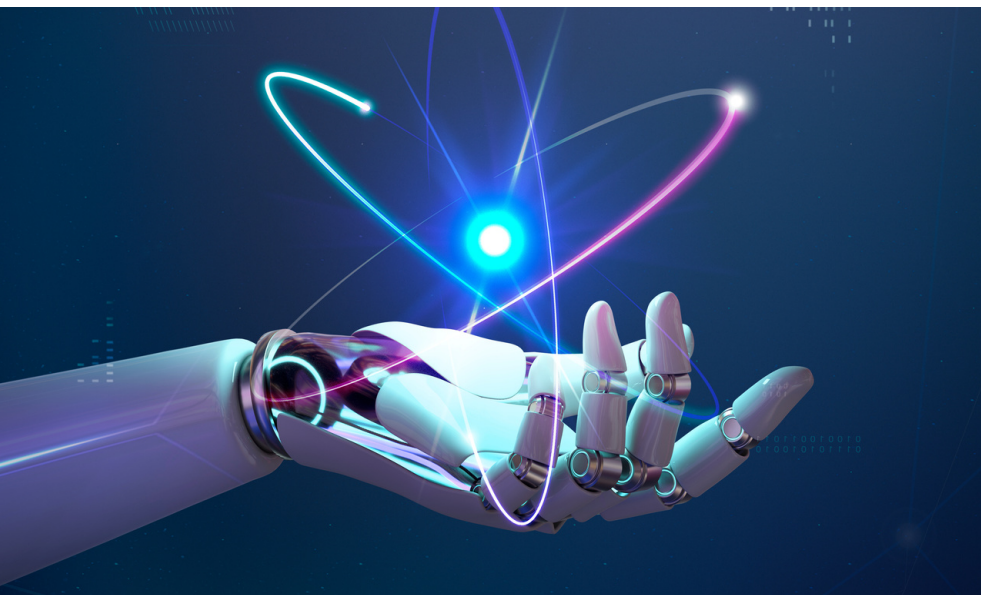




# HAPPY *New Year*

Department of Robotics & Automation





# ROBOTECH

Monthly Newsletter

NOV-DEC 2023

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### Vision

Progress through quality education and evolve into a center of academic excellence in the field of Robotics and Automation

### Mission

To provide a supportive academic environment for value-added education and continuous improvement. To develop society responsible engineers with technical competence and leadership skills

# Triumph at St. Mary's Tech Exhibition - Best Pavilion Award!

We are thrilled to share the exciting news that Adi Shankara Institute Of Engineering And Technology has secured the prestigious Best Pavilion Award at the recent inter-college tech exhibition hosted at St. Mary's School Thamarachal! Our college delegation presented an impressive array of more than 25 groundbreaking projects, spanning diverse fields such as Robotics, Automation, Drone Technology, New Concepts in Construction, Biotechnology, a high-performance Go Cart, E-Cycle, Home Work Writing Machine, and a Disaster Management System. The comprehensive display of cutting-edge technology in these projects vividly underscores our unwavering commitment to pushing the boundaries of innovation in engineering and technology education. It is truly an honor to have our efforts acknowledged and rewarded. A special commendation goes out to the brilliant minds who spearheaded the various projects – the robotics and automation enthusiasts, the drone technology maestros, the visionaries in construction, the trailblazers in biotechnology, the speedsters of the go cart, the innovators behind the E-Cycle, the creators of the Home Work Writing Machine, and the pioneers in Disaster Management System development. Your passion and creativity have undeniably set us apart on this grand stage.





# TELEKNOWZLE



In the spirit of celebrating World Television Day, we are delighted to announce an engaging and intellectually stimulating event brought to you by ISA ASIET - TELEKNOWZLE: The Ultimate Quiz Battle. As we navigate through the ever-evolving landscape of communication and globalization, this event serves as a tribute to the transformative power of television.

Mark your calendars for November 21, 2023, as we invite you to participate in this quiz extravaganza on the Google Form platform. The registration is free, and all are welcome to join in this celebration of knowledge. Through TELEKNOWZLE, we aim to delve into the rich tapestry of television's impact on our lives and understanding.

## A Distinguished Visit to ASIET's TBI by Vice Chancellor Dr. Saji Gopinath



We are thrilled to share a momentous occasion for the Department of Robotics and Automation at Adi Shankara Institute of Engineering and Technology (ASIET). Recently, our Technology Business Incubator (TBI) had the honor of hosting a visit from the esteemed Vice Chancellor of APJ Abdul Kalam Technological University (KTU), Dr. Saji Gopinath. During his visit, Dr. Saji Gopinath engaged in insightful interactions with both startup companies and students affiliated with the Department of Robotics and Automation. His presence and encouragement added a significant layer of inspiration to our innovative endeavors. Dr. Gopinath not only observed the cutting-edge projects but also took the time to discuss the challenges and triumphs with our budding entrepreneurs and scholars. His words of wisdom and encouragement resonated deeply with all present, motivating us to push the boundaries of innovation even further.

# IEEE AKPESSC Event Highlights at RIT Kottayam

We are excited to share the recap of the three-day IEEE AKPESSC event hosted at Rajiv Gandhi Institute of Engineering, Kottayam, from October 27th to 29th. The event kicked off with an enlightening industrial visit to ASAP Kunnamthanam, KSEB Ettumanoor, and KSEB Poovanthuruth, providing valuable insights into the practical aspects of our studies.

The first day included an ice-breaking session fostering connections among delegates from various colleges. Informative sessions on climate change by Dr. Bindhu B K and a student professional awareness session by Dr. Rahul Satheesh set the stage for the inauguration ceremony led by CG-Prof Dr. Sabu Thomas. The day concluded with an interactive talk on sustainability by Adhil Nasser.

Day two featured parallel workshops on ETAP, PV Design and Implementation, and Energy Auditing. A delightful field trip to Kumarakam added a memorable touch, highlighted by a houseboat journey amid refreshing rainfall, creating everlasting memories. The evening came alive with the enchanting performances of RIT's Music Band and Dance Team, refreshing our spirits with their magical voices and moves. On the final day, talk sessions by Nithin and Hari Prasad, along with Mr. Sumukh Surya and Ms. Shalini V Nair, covered Power Electronics, Battery Management, and more. Simultaneously, the Chairs Meet took place.

The closing ceremony featured heartfelt testimonials from delegates, marking an emotional farewell. Adi Shankara IEEE students, led by Chair Fahad PS, actively participated, and Rida Alhaan JS from the Robotics department made a notable contribution. Certificates of participation were distributed to the 15 ASIET delegates who were an integral part of this successful event.





## A Profound Exchange of Ideas: Dr. T R Sreekrishnan's Visit to our Campus



We are delighted to share a moment of intellectual enrichment as our campus had the privilege of hosting Dr. T R Sreekrishnan, Deputy Director of IIT Delhi, on a recent visit.

Dr. Sreekrishnan's presence brought a wealth of knowledge and insights, fostering a dynamic exchange of ideas that promises to leave a lasting impact on the development of both our faculty and the institute as a whole.

During his visit, Dr. Sreekrishnan engaged in a highly interactive session with our esteemed faculty members. The session proved to be an invaluable opportunity for the faculty to gain profound insights into the latest advancements in their respective fields and to discuss strategies for the continuous development of both individual capabilities and the overall department.

## Triumph in Numbers: S3 Robotics and Automation Students Secure First Prize in Math Week Project!

It is with immense pride and joy that we announce a remarkable achievement during Math Week by our talented students from the S3 Robotics and Automation program – Sruthi and Sneha. Their outstanding project not only stood out but secured the coveted First Prize, showcasing the exceptional synergy between mathematics and cutting-edge technology.

Sruthy and Sneha's project not only demonstrated their prowess in Robotics and Automation but also highlighted the seamless integration of mathematical concepts. The innovative approach and meticulous execution captivated the judges and earned them the top spot in the Math Week Project competition.



## Victory Sprint: KTU Zonal Kho Kho Competition

We are elated to share a moment of triumph as our spirited team from the Robotics and Automation department, comprising Akhil Babu and Fahim Nihan, secured the Second Prize in the KTU Zonal Kho Kho Competition. Their remarkable performance not only exemplifies athletic prowess but also showcases the collaborative spirit within our department.

Our dynamic team, consisting of Akhil Babu and Fahim Nihan, both S1 students in the Robotics and Automation program, displayed exceptional sportsmanship and agility throughout the competition. Their dedication to excellence and teamwork was truly commendable.

## Publication Triumph: Robotics and Automation Faculties Shine at IEEE ACCESS 23 Conference

We are thrilled to announce a momentous achievement by our distinguished faculties from the Robotics and Automation department. Ranjeesh R Chandran and Sreedeeep Krishnan have presented and successfully published their research paper, titled "Comparative Analysis of Deep Learning Techniques for Assistive Soft Wearable Robots," at the prestigious IEEE Sponsored International Conference ACCESS 23.

The paper has not only been accepted for presentation but has also been published in the conference proceedings with the DOI <https://doi.org/10.1109/ACCESS57397.2023.10199699>. This recognition is a testament to the caliber of research undertaken by our faculties and their contribution to the field of robotics and assistive technology.

We express our gratitude to the departmental faculty, mentors, and the entire community for fostering an environment that encourages research excellence. It is through collaborative efforts that such milestones are achieved.

# Sparkling Celebrations: Christmas Joy at the Robotics and Automation Department!

It's that magical time of the year, and the spirit of Christmas has descended upon us! The Robotics and Automation Department is gearing up for a festive celebration filled with joy, warmth, and camaraderie. To kick off the celebrations, we have planned a series of festive activities that promise to add a touch of merriment to our department. From beautifully adorned Christmas decorations to heartwarming carol singing, get ready for a delightful atmosphere that captures the essence of the season. In the true spirit of our department, we are infusing our Christmas celebration with a dash of innovation. Our talented minds have come together to create robotic decorations that showcase the perfect blend of technology and holiday spirit. Expect to be amazed by the creativity on display. No celebration is complete without a feast! Join us for a festive lunch filled with delicious treats and holiday delights. It's a time to savor good food and great company, sharing the joy of the season.

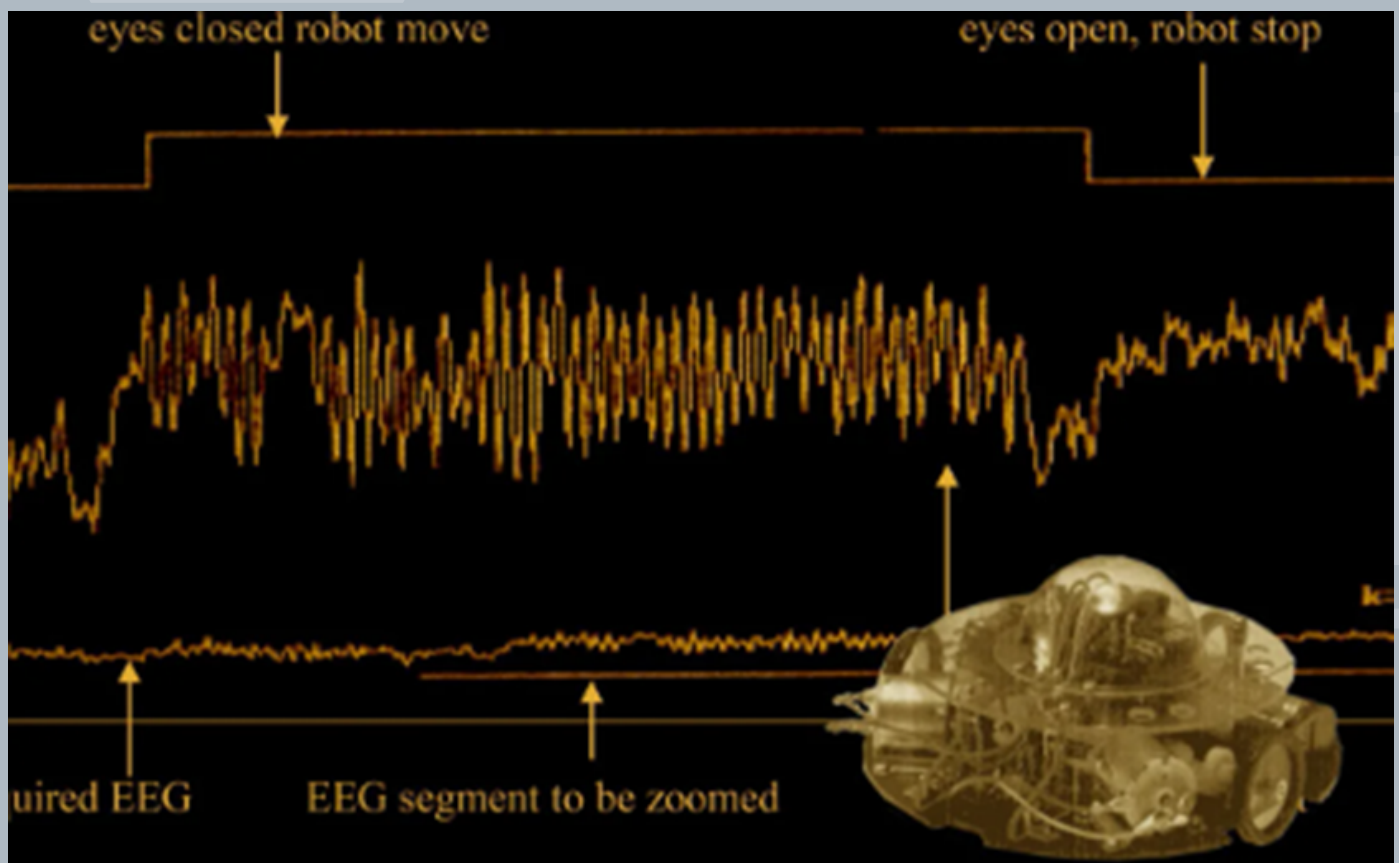




## 5 Years Ago, Researchers Used Brain Waves to Control a Robot

The first EEG-controlled robot was developed in North Macedonia using the brain to directly control an object was long the stuff of science fiction, and in 1988 the vision became a reality. IEEE Life Senior Member Stevo Bozinovski Members Mihail Sestakov and Dr. Liljana Bozinovska used a student volunteer's electroencephalogram (EEG) brain signals to move a robot along a closed-circuit track. Bozinovski and Sestakov were electrical engineering and computer science professors at Saints Cyril and Methodius University, in Skopje, North Macedonia. Bozinovska, a physician, taught in the university's medical school. Their achievement has paved the way for EEG-controlled wheelchairs and exoskeletons.

IEEE commemorated their work with an IEEE Milestone during a ceremony at the university on 10 October. "The accomplishment is not only meaningful locally," Vladimir Atanasovski said at the dedication ceremony. "It exhibits benefits for the entire humanity." Atanasovski is dean of the university's electrical engineering and information technologies school. "It was at this very school, 35 years ago, where a relationship between two previously distant areas [robotics and EEG signals] was formed," he added. "This remarkable work showed that science fiction can become a reality." Controlling a robot using human brain signals for the first time advanced both electrical and computer engineering and science, led to worldwide research on brain-computer interfaces, and opened an explicit communication channel between robots and humans."



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Dr Julia T J

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