



IAS Annual Report 2023



INDUX series 1: "Student-Professional Transition."

The IEEE Student Branch at the College of Engineering Karunagappally, in collaboration with the Industry Applications Society Student Branch Chapter, was delighted to host the inaugural webinar of the INDUX series. The event, held on the 3rd of April 2023 at 7:00 PM, marked the beginning of a comprehensive series aimed at providing valuable insights and guidance to students as they navigate the critical transition from academic life to the professional world.

The featured speaker for this opening webinar was Ms. Bhagya Kunjuraman, Team Lead at Accenture, Singapore. Ms. Kunjuraman, with her extensive industry experience, shared her expertise on the topic of "Student-Professional Transition." Participants had the unique opportunity to glean insights into the challenges and opportunities that accompany this pivotal phase in their careers.

The agenda for the webinar included a warm welcome and introduction, an overview of the INDUX webinar series, and a thought-provoking presentation by Ms. Bhagya Kunjuraman. The session was structured to allow for active participation, including a dedicated time for a question and answer segment, providing attendees with the chance to interact directly with the esteemed speaker.

Key highlights of the event included the speaker's insightful presentation, where she delved into practical strategies for a successful transition. The session fostered meaningful discussions during the Q&A segment, allowing participants to seek personalized advice on their career development journey.

While the event was a success, with positive feedback from participants, one challenge encountered was the limited time available for the Q&A session due to the



overwhelming number of participant questions. Future webinars in the INDUX series may consider extending the Q&A duration to accommodate more inquiries.

The collaboration between the IEEE Student Branch and the Industry Applications Society Student Branch Chapter in organizing this webinar series has proven to be fruitful, providing a platform for students, faculty, and professionals to come together in the pursuit of knowledge and career development. The success of this initial webinar sets an optimistic tone for the upcoming sessions, promising an enriching experience for all involved.



INDUX series 2: "Engineering Thinking - R&D at Wind Sector."

The IEEE Student Branch at the College of Engineering Karunagappally, in association with the Industry Applications Society Student Branch Chapter, successfully hosted the second installment of the INDUX webinar series on the 17th of April 2023 at 7:00 PM. The session featured Ms. Yanni Zhong, an esteemed Advisory Engineer at Siemens Gamesa, who delivered a compelling presentation on "Engineering Thinking - R&D at Wind Sector."

The event commenced with a warm welcome and an overview of the ongoing INDUX webinar series. The stage was then handed over to Ms. Yanni Zhong, who provided



valuable insights into the nuances of engineering thinking within the realm of Research and Development in the Wind Sector. Her presentation covered innovative approaches, current challenges, and emerging trends in this rapidly evolving industry.

The session was structured to encourage participant engagement, with a dedicated segment for questions and answers. Attendees actively participated, seeking clarifications, and sharing their perspectives, thereby fostering a collaborative learning environment. Ms. Yanni Zhong's comprehensive presentation shed light on the intricacies of R&D in the Wind Sector, providing attendees with a deeper understanding of engineering thinking in this specialized field.

The webinar attracted a diverse audience of students, faculty, and professionals, showcasing the continued success of the INDUX series in bringing together individuals with a shared interest in advancing their knowledge and careers. The Q&A session facilitated meaningful interactions, allowing participants to directly engage with Ms. Zhong and gain personalized insights. Positive feedback was received, with participants expressing appreciation for the relevance and practicality of the information shared by Ms. Zhong.

In conclusion, the second session of the INDUX webinar series was a resounding success, thanks to the collaborative efforts of the IEEE Student Branch and the Industry Applications Society Student Branch Chapter. The event not only provided valuable insights into the subject matter but also fostered a sense of community among attendees. We look forward to the continued success of the INDUX series and invite everyone to participate in future sessions.

Humanitarian Activity-Home Electrification



In alignment with IEEE's commitment to humanitarian initiatives, the IEEE Student Branch at the College of Engineering Karunagappally (IEEE SB CEK) embarked on a meaningful endeavor to support a deserving individual lacking basic amenities and shelter. This report highlights the participation of members in humanitarian activity and the impact of their efforts. IEEE SB CEK identified a woman from the Thodiyoor Grama Panchayat locality as a deserving candidate in need of assistance. She lacked a proper home and basic amenities, making her situation precarious. In response, IEEE SB CEK decided to undertake the electrical work necessary to build a home for her. This initiative aimed to provide her with a safe and comfortable living environment, thereby improving her quality of life and ensuring her well-being. Team CEK actively participated in the planning, coordination, and execution of the humanitarian activity. We utilized our skills and expertise in electrical engineering to undertake the necessary electrical works for the construction of the woman's home. Through our dedication and hard work, the members contributed significantly to the completion of the project, ensuring that the beneficiary received the support she urgently needed.

The humanitarian activity undertaken by IEEE SB CEK had a profound impact on the beneficiary and the community at large. By providing the woman with a safe and secure home, IEEE SB CEK members positively transformed her life and offered her hope for a better future. The project exemplified the spirit of service and compassion ingrained within the IEEE community, demonstrating the power of engineering to address societal challenges and make a meaningful difference in people's lives. The participation of IEEE SB CEK members in the humanitarian activity exemplifies the organization's commitment to leveraging technology for the betterment of society. Through their collective efforts, they have exemplified the IEEE motto of "Advancing Technology for Humanity" and demonstrated the positive impact that engineers can have on communities in need.

The interactive ambiance facilitated an engaging exchange of ideas, with attendees actively participating in the workshop, seeking guidance on optimizing their resumes, and expressing keen interest in SIGHT's mission-driven projects. A total of 35 participants actively joined the session, showcasing their enthusiasm for humanitarian tech and professional growth. Post-event feedback echoed positivity, lauding the session's informative content and practical takeaways. The success of the session has ignited anticipation for future events, driving the organizers to continue fostering a platform for knowledge dissemination and skill enhancement within the IEEE community.



CEK **IEEE COMPUTER SOCIETY** **IEEE IAS** **IEEE SB** **IEEE**

SMART HOME SYNERGY

A 2-Day Home Automation Workshop

Joel Mathew V
Web Master, IEEE SB CEK

PG-Project Lab

25th and 26th October 2023

4:00 PM - 5:30 PM

<https://min.lc/SmartHome-Synergy>

IEEE STUDENT BRANCH COLLEGE OF ENGINEERING KARUNAGAPPALLY

Workshop: "SMART HOME SYNERGY"

(IEEE SB CEK in association with IEEE CS/RAS Jt. Chapter CEK & IEEE IAS SBC CEK)

Day 1 - October 25, 2023

The "SMART HOME SYNERGY" workshop, organized by IEEE SB CEK in association with IEEE CS/RAS Joint Chapter CEK and IEEE IAS SBC CEK, took place at the College of Engineering Karunagappally on October 25th and 26th, 2023. Mr. Joel Mathew V, Web Master IEEE SB CEK, served as the speaker for the session.

On the first day of the workshop, the focus was on introducing the participants to the basics of the hardware components required for Home Automation. Additionally, an overview of the workshop's objectives was provided. The primary goal was to create a model that allowed students to control a light bulb using their mobile phones.

The session was well-attended, with 31 students participating. Among them, 28 were IEEE members, and the remaining 3 were non-IEEE members



Day 2 - October 26, 2023

The second day of the workshop was dedicated to hands-on activities. The participants were divided into 5 teams, each consisting of 6 members and a volunteer. Building upon the hardware knowledge acquired on the first day, the teams worked on implementing the project with their goals in mind. Mr. Joel Mathew V and the volunteer guided the students in developing both the hardware and software components of their projects.

The workshop lasted for 2 hours, and by the end of the day, all the teams had successfully achieved their objective, which was to control a light bulb using their mobile phones.

Technical Details:

To achieve the project's objectives, the following technical components and methods were used:

- Microcontroller: NodeMCU
- Hardware components were assembled on a breadboard.
- The NodeMCU was connected to a network via a Wi-Fi module.
- The participants' mobile phones were also connected to the same network.
- The connection between the mobile phones and the NodeMCU was established using Sinric Pro.
- To make the connection work, the network key from Sinric Pro was incorporated into the code in the Arduino Software.
- The modified code was then uploaded to the NodeMCU.
- Finally, Google Home was used on mobile phones to connect to Sinric Pro, enabling control of the light bulb.

The technical setup and procedures allowed for the successful execution of the project, where participants could control a light bulb with their mobile phones.



This workshop not only provided valuable hands-on experience for the participants but also fostered collaboration and learning in the field of home automation. It was a successful event, thanks to the enthusiastic participation of students and the dedicated guidance provided by Mr. Joel Mathew V and the volunteers.

Conclusion

In essence, the "SMART HOME SYNERGY" workshop at IEEE SB CEK effectively combined theory and practice in home automation. The first day provided a foundational understanding of hardware components and outlined the goal of controlling a light bulb with mobile phones. With 31 participants, including 28 IEEE members, the diverse group showed keen interest.

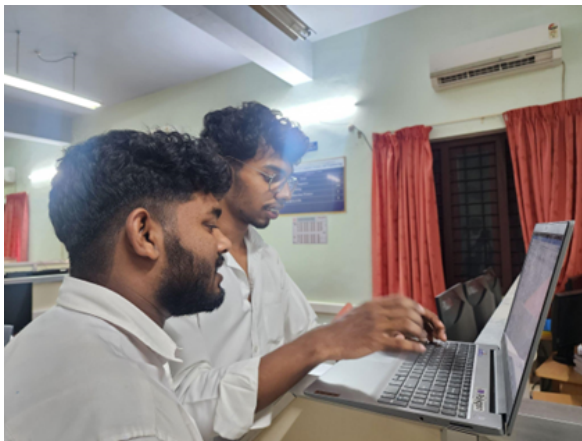
On the second day, teams applied their hardware knowledge to practical projects under the guidance of Mr. Joel Mathew V. Successfully utilizing a NodeMCU microcontroller, Sinric Pro, and Google Home, all teams achieved the objective of mobile-controlled light bulbs. This hands-on experience not only strengthened technical skills but also promoted teamwork.

In conclusion, the workshop was a triumph in merging theory with practice, with participants' commitment, expert guidance, and collaborative efforts ensuring its success. The achievement of project goals demonstrated the workshop's impact, leaving a lasting impression and inspiring future innovation in smart home technology.



CHATBOT COMBAT-Chat bot creation competition

On September 22, 2023, the IEEE Student Branch at the College of Engineering Karunagappally, in association with IEEE IAS SBC CEK, organized the Chatbot Creation Competition. The event attracted teams of talented students from various engineering courses who were tasked with creating fully functioning chatbots for the main website of IHRD. Utilizing various AI platforms, participants showcased their technical prowess and creativity in crafting chatbots that could effectively engage users and enhance their browsing experiences. A panel of esteemed judges, including Prof. Haseena P Y from the EEE Department, Prof. Sabeena K, and Jyothi R L from the CS Department, evaluated the chatbots based on functionality and UI design. The competition fostered healthy competition and collaboration among participants, encouraging knowledge sharing and skill development in AI and chatbot technology. The winning team, selected for their excellence in functionality and UI design, demonstrated a seamless integration of AI capabilities, intuitive user interface, and effective user engagement. The event highlighted the significance of leveraging AI and chatbot technology to enhance user experiences on websites and left a positive impact on the future of technology and innovation in education. Special thanks were extended to all participants, judges, and organizers for their valuable contributions to the success of the competition.





MEMBERSHIP DEVELOPMENT SESSION-outreach



The Membership Development Session and Execom Training sessions were conducted in Musaliar College of Engineering and Technology on December 1, 2023, and on Baseliros Mathews II College of Engineering on October 19, 2023, by Ms. Sidhi A S, Chair IAS SBC CEK, and Ms. Archa S, secretary IEEE IAS SBC CEK which aimed to enrich students' understanding of IEEE opportunities and enhance the capabilities of the executive committee to lead effectively. The session commenced with an introduction to IEEE, highlighting its global significance and the benefits it offers to members. 30 members attended the training session.

Various opportunities within IEEE and IAS were discussed including, competitions, and publications, Travel Grants aiming to inspire students to actively participate in IEEE activities.

Demonstrations of tools and resources available to IEEE members were provided, emphasizing their importance in research and skill development. Subsequently, event reporting guidelines and student branch reporting procedures were explained in detail, emphasizing the importance of accurate reporting for organizational documentation and evaluation. This segment aimed to equip students with the necessary knowledge to effectively report IEEE events and contribute to the growth of their student branch.



The session concluded with execom training, where executive committee members received comprehensive training on leadership skills, event management, communication strategies, and teamwork. This training aimed to empower execom members to lead their student branch effectively and foster a culture of innovation and collaboration. The outcomes included increased awareness among students about IEEE opportunities and resources, enhanced understanding of event reporting and student branch reporting procedures, empowerment of executive committee members with leadership skills and strategies to lead effectively, and strengthened sense of community and engagement within the IEEE student branch.

The Membership Development Session and Execom Training successfully achieved its objectives of enhancing students' awareness of IEEE opportunities and empowering executive committee members with the necessary skills to lead effectively. It is expected that the insights gained from this session will contribute to the professional and personal development of students and further strengthen the IEEE community at these colleges.



IEEE IAS SBC CEK Membership Development Session

On October 14th, 2023, IEEE IAS SBC CEK, in collaboration with IEEE Student Branch College of Engineering Karunagappally, Kollam, organized a Membership Development Session. The day-long event, held at the College of Engineering Karunagappally, Kollam, attracted 40 participants, aimed to introduce students to the IEEE Industrial Application Society (IAS) and foster their active involvement in its initiatives. Miss Sidhi A S, chair of IEEE SB CEK & IEEE IAS SBC CEK, initiated the day by delivering the IEEE code of ethics, followed by a warm welcome from Prof. Haseena P Y, Counselor, IEEE SB CEK, and wished them well in their future endeavors with IEEE.

Following the introductions, past chair of both IEEE SB CEK, Mr. Alister Celteus, provided a comprehensive overview of the IEEE Industrial Applications Society (IAS), outlining its focus and goals. This introduction offered valuable context for the attendees.

Next, the session welcomed guest speaker Mr. Akshy Krishnan, Mentor, IEEE IAS SBC CEK. Joining virtually, Mr. Krishnan shared his personal journey with the society, detailing his enriching experiences. This provided a firsthand perspective on the benefits of involvement with IEEE IAS.

After a short refreshment break, the session continued with Mr. Hari Krishnan A, Mentor, IEEE SB CEK, delivering a session on IPRECON, the society's unique paper conference organized entirely by undergraduate students. He shared the conference's history and inspired attendees to be a part of this prestigious event.

An interactive web development session followed, led by Mr. Mohammed Niyas and Mr. Clifin Cleteus, Mentors, IEEE SB CEK. Winners of the IAS CMD Chapter Web Contest themselves, they engaged participants in a web development contest using ChatGPT. This session not only introduced them to web development but also showcased the possibilities offered by the IAS CMD Chapter Web Content competition held annually.

The day concluded with Mr. Anadhu S Krishnan, Mentor, IEEE SB CEK, joining virtually to interact with the executive committee and participants. He shared his insights and encouraged them to explore the vast opportunities presented by IEEE IAS.



Finally at the conclusion of the session, participants were invited to share their feedback and recommendations for improvement. While the initial goal was to spark interest in at least 10 attendees, the overwhelming response went far beyond that. Participants expressed sheer fascination with the possibilities unveiled by IEEE IAS. Many voiced their gratitude to the mentors for the informative sessions and the inspiration to become active members. This enthusiastic response serves as a testament to the event's success.

In summary, the collaborative Membership Development Session by IEEE IAS SBC CEK and IEEE Student Branch College of Engineering Karunagappally stands as a resounding success. The insightful presentations, interactive activities, and valuable mentorship provided a launchpad for the participants' future endeavors within IEEE IAS. The overwhelmingly positive feedback underscores the effectiveness of the session in fostering engagement and igniting a passion for industrial applications and engineering ethics within the IEEE student community.

Award justification statement (maximum 2 page)

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Please upload a short report of the activities in 2023 and your statement about why your chapter is eligible for this award. The report should not be more than 2 page.



Glimpse of MD Session

