IEEE YESIST12 2023 Grand Finale Report

Date: September 2nd and 3rd, 2023

Location: Arab Academy of Science, Technology, and Maritime Transport, Egypt

DAY1

Inaugural Session

The 8th edition of YESIST 12 was inaugurated at the Arab Academy for Science, Technology, and Maritime Transport in Alexandria, Egypt. The event was attended by distinguished guests, dignitaries, volunteers, mentors, participants, and well-wishers who were all inspired by the spirit of innovation. The event began with a commitment to the IEEE Code of Ethics, a testament to the organisation's dedication to integrity and ethical conduct.

Prof. Akram Soliman Elselmy, Dean of the College of Engineering and Technology at AASTMT, extended a warm welcome, underscoring the event's significance. The Egyptian Section, represented by Prof. Ahmed Hassan Yousef, bestowed felicitations, acknowledging their instrumental support. Prof. Mike Hinchey, Region 8 Director Elect, emphasised the potency of positive thinking. Prof. Hesham Seoudy inaugurated the event, underscoring the importance of unity in surmounting challenges. Dr. Ramalatha Marimuthu, General Chair of YESIST12, unveiled the event's vision and mission, setting the tone for a transformative journey. Guest speakers, Prof. Yousry Elgamal, former Minister of Education and AASTMT Senior Consultant, and Prof. Ismail Abdel Ghafar Ismail Farag, kindled inspiration among young innovators.

YESIST12 2023 Grand Finale Inaugural Session

Workshop on Sustainable Social Innovation through Standards, Dr.Lenin Raja

Followed by the inaugural session, we had a workshop on Sustainable Social Innovation through Standards was conducted by Dr. Lenin Raja, an expert in sustainable development and social innovation. He emphasised the importance of adopting and implementing standards that promote environmental sustainability, social equity, and economic growth.

Young Professionals Meetup

Interaction with young professionals (YP) among different affinity groups laid a great platform for fostering diversity and inclusivity in the workplace. Mr. Moataz Alaa, Chair of Egypt Young Professionals 2024-2025, delivered a warm welcome note, setting the tone for the event Young Professionals Meetup. Mr. Arun M., Chair of IEEE Madras Young Professionals, provided an insightful overview of IEEE Young Professionals. Mr. Ashvanth B., Vice Chair of IEEE Madras Young Professionals, shared his personal journey and experiences transitioning from a graduate student member to a young professional. Mr. Nehad El-Sherif, Founder and President of MNKYBR Technologies Inc., conducted an informative workshop focusing on the importance and basics of codes and standards in various industries. Participants gained valuable insights into this crucial aspect of their professions. This knowledge will undoubtedly enhance their ability to deliver projects that meet the highest standards of safety and efficiency.

Moderated by Mr. Moataz Alaa, the panel discussion highlighted the pivotal role young professionals play in shaping the future of various industries. Distinguished panellists included: Mr. Abdelrahman Metwally (Vice Chair of Egypt Young Professionals 2024-2025), Mr. Abdul Halik (Secretary, IEEE Madras Young Professionals), Prof. Ramalatha Marimuthu (General Chair, IEEE YESIST12), Prof. Bozenna Pasic-Duncan (Advisory Committee, IEEE YESIST12). The event exemplified the importance of collaboration and knowledge exchange among different affinity groups within IEEE and beyond.

Young Professionals Meetup

DAY 2

Keynote Sessions:

The initial keynote session was delivered by Er. Nehad El Sherif (IEEE Industry Application Society) on September 3rd, 2023. By sharing his experiences and lessons learned, Er. Nehad El Sherif inspired attendees to push boundaries and explore new possibilities in their own work.

The second keynote session was delivered by Er. Eric Berkowitz. By attending Er. Eric Berkowitz's session, participants learnt practical strategies and a renewed sense of purpose towards creating a more sustainable future.

YESIST12 Delegates and Participants

Track Evaluations

TRACK: JUNIOR EINSTEIN

 The Innovation Awards 2023 were a celebration of exceptional talent and innovative projects from around the world, featuring a total of 13 offline teams and 23 online teams, each showcasing a diverse range of groundbreaking ideas. The esteemed jury panel, consisting of Moezbellah Al Shareef, Programmes Manager at Ideaspace (EME IH operators), representing the offline jury, and Sumit Suresh Gerela, Senior Software Engineer at Apple Inc., representing the online jury, evaluated, and recognised outstanding contributions.

The winning team, hailing from Egypt STEM School in Team Section Egypt (R8), comprised Abdelrahman Wael Abdelrahman Rashad Ammar and Yahia Ahmed Seif Eldin Ahmed. Their

project, titled "Egypt Medical Innovation," was acknowledged by the jury for it's potential to inspire future initiatives in the field. The runner-up team, consisting of Pavan K and Aadhav K from Coimbatore Public School in Team Section Madras (R10), presented "PERS Prudent," an eco-friendly initiative that showed significant promise in sustainability.

Furthermore, several projects received special mentions for their outstanding contributions. Shahd Nooh from Sharkya STEM School in Team Section Egypt (R8) earned a special mention for "Little Mermaid". Another special mention went to ROHITH KUMARAN K G, AAFRIN SAFWANA O N, and SAKTHIDHARAN A S, representing The United Public School in India, for their project titled "SMART ACCIDENT DETECT AND ALARM SYSTEM," which demonstrated a strong commitment to safety and innovation. Lastly, Yakovlev Andrew Aleksandrovich and Fedotov Fyodor Sergeevich from a school in Russia received a special mention for their project titled EIVIK: ROBOTIZED MOTOR-DOG WITH MYO CONTROL USING PELTIER ELEMENTS.

TRACK: INNOVATION CHALLENGE

The Innovation Awards 2023 showcased remarkable talent and innovation in a competitive arena, featuring both offline and online teams. This year's competition drew a diverse pool of participants, with 1 offline team and 16 online teams, all vying for recognition and honour. The judging panel, composed of Nehad El Sherif for the offline jury and Tasnim Binte Shawkat for the online jury, played a pivotal role in evaluating the projects.

The winning team, representing Panimalar Engineering College from Madras Section in Region 10, consisted of Abishek R., R. Laxman Mahadevan, Mohan J., and Abdullah R for their project titled "Violation Detection and Sustainability Design for Vehicles using IoT and AI".

The runner-up team, hailing from Meenakshi Sundararajan Engineering College and also from Madras Section in Region 10, included Varshaa K. G., Ganesh A. K.J., Harish Deepak, and Kartikeyan M. Their project "Theia" lacked an abstract in the report, but it clearly impressed the jury with its potential and innovative aspects.

A special mention was awarded to a team from St. Joseph's College of Engineering, part of the Madras Section in Region 10. The team, consisting of JAISON ALEXANDER, F JASMINE J, JASIGO KRIFI S, and Jeganthan R, presented the project "REMOTELY PILOTED SYSTEM"

TRACK: MAKER FAIR

Moving on to Maker Fair 2023, the event brought together a diverse range of creative minds, with nine offline teams and 31 online teams participating. The event benefited from the expertise of two esteemed jurors, Mike Hinchey and Suresh Thiagarajan, who significantly contributed to the evaluation process.

In the online category, the champions emerged from Madras in Region 10, representing Sri Venkateswara College of Engineering. The winning team, consisting of HariHaran G, Kishore Arvind R, and Harshavardhan R, presented the project titled "Ward-Off Piracy".

The online runner-up position was claimed by a team from the Kolkata Section in Region 10, affiliated with the Institute of Engineering and Management, Kolkata. Team members Sayantan Sarkar, Siddhant Gayen, and Souradeep Atar presented their project, "Smart Agriculture Management System"

Special mention was granted to a team from Bangalore Section in Region 10, representing Dayananda Sagar College of Engineering. Team members Likhith L., Venkatesh Perumal, and K. A. Shree Vignesh showcased their project, "Gait and Dynamic Balance Measuring Device.

TRACK: SPECIAL TRACK

The Special Track at the Innovation Awards 2023 gathered a diverse group of participants, featuring 9 offline teams and 32 online teams, with 30 presenting teams and 2 absentees. The event was enriched by the expertise of two esteemed jurors: Mr. Ahmed Alaa, a technology lab engineer at the Information Industry Department Agency, ITISA, and Hussain Mahdi, a Ph.D. candidate in electrical engineering at the Electronic Department, Faculty of Engineering, UKM Universiti Kebangsaan Malaysia.

The winning team, representing IEEE Palestine Subsection in Region 8 and hailing from the Arab American University Palestine, was led by Saed Mahmoud Salem Hanani. for their project titled "FURANGE"

The runner-up team, led by M. Meenakumari from the IEEE Madras Section in Region 10, represented Vellore Institute of Technology, Chennai. Their project, titled "Sensor-based Identification of Microplastics in Liquid Medium," showcased an eco-friendly approach to addressing environmental concerns, as highlighted in the project abstract.

Additionally, a special mention was awarded to a team from the IEEE Madras Section in Region 10, representing Kongu Engineering College. Comprising Kausika S, Akalya S, and Nagul M K, the team presented the project titled "Smart System for Monitoring and Controlling of Smart Fan and Air Conditioner," which aligns with eco-friendly principles as described in the project abstract. The jury acknowledged the team's commitment to eco-friendliness and their innovative approach to smart fan and air conditioner control.

TRACK: WEPOWER

The WEPOWER track at the Innovation Awards 2023 brought together a diverse array of innovative projects, featuring five offline teams and 13 online teams. The judging panel,

consisting of Vildana Hrnjic, an entrepreneur from SAC R8, and Akila Wijwthunge, a lecturer in Mechatronics from R10, played a pivotal role in evaluating these projects.

The winning team, hailing from India in Region 10 and representing GSSS Institute of Engineering and Technology for Women, included Bhoomika V. Gujjar, Bhavyashree, and M. Apoorva H. P. Their project, titled IoT-Based Hybrid Green Energy-Driven Highway System," stood out as a beacon of innovation. Their dedication to a green, energy-driven highway system likely played a pivotal role in securing their victory.

The runner-up team, a collaborative effort between South Africa and India, spanned Regions 8 and 10. It was composed of Manne Bharati from Chalapathi Institute of Engineering and Technology and Udochukwu Bola Akuru from Tshwane University of Technology. Their project, "An Eco-Friendly Solar-Energy-Based Insect Pest Trap" showcased innovation by addressing insect pest control using solar energy. This recognition highlighted their contributions in the field of sustainable technology.

Two special mentions were granted in this category. Special Mention 1 went to a team from Uganda, representing Mbarara University of Science and Technology in Region 8. The team, comprising Parvin Kyohirw and Johnbaptist Eshana Kauta, presented the project titled "A Fair Pay Power System. Special Mention 2 was awarded to a team from India in Region 10, representing CVR College of Engineering. The team, consisting of MK Abhishek Basavesh, K Narasimha Koushik, N Supreet Reddy, and Padihar Bhavana, presented the project titled "Solar Powered EV Charging Stations. Their innovative approach to sustainable electric vehicle charging stations earned them recognition. The jury commended the team for their forward-thinking approach to sustainable transportation solutions, which aligns with the global shift towards eco-friendly transportation.

While specific project abstracts are not provided in this report, it underscores the dedication, innovation, and potential impact that these participating teams brought to the YESIST12 2023. We will continue to celebrate ground-breaking innovations and creativity in the field of sustainable energy and technology in the upcoming editions of YESIST12.

Track Evaluations

Exploring Egypt with Networks - Yesist'12 Offline Tour Report

Over the course of two unforgettable days, there was exploration at Egypt's iconic landmarks and forged valuable connections within the IEEE community including Toshio Fukuda, IEEE Past President in 2021, Eric Berkowitz, Director of Membership, IEEE Computer Society.

Day 1: Exploring the Wonders of Cairo:
The Egyptian Museum in Cairo: Our journey began with a visit to the Egyptian Museum in Cairo, a treasure trove of artifacts that spanned centuries of Egyptian history.
3 Pyramids Papyrus Institute: Next on the itinerary was the 3 Pyramids Papyrus Institute, where participants had the opportunity to witness the intricate art of papyrus making, a craft dating back to ancient Egypt.
Giza Necropolis: As the day continued, we ventured to the Giza Necropolis, a sprawling complex that houses the world-famous pyramids.
The Great Sphinx of Giza: Camel Ride and Tomb Exploration: The highlight of the day was undoubtedly the Great Sphinx of Giza, a colossal limestone statue with the body of a lion and the head of a pharaoh.

Day 2: Discovering Alexandria's Rich Heritage
Catacomb: On the second day, the tour took us to the Catacomb of Kom El Shoqafa, a remarkable underground burial site that blended Egyptian, Greek, and Roman influences.
Pompey Pillar: Our next stop was the Pompey Pillar, a colossal red granite column that stands as a testament to the city's ancient Roman past.
Ancient Rome Theater: We continued our exploration with a visit to the Ancient Roman Theater, where participants immersed themselves in the world of classical performances and appreciated the architectural marvels of ancient Roman entertainment venues.
Royal Jewelry Museum: Our tour concluded with a visit to the Royal Jewellery Museum, which housed an opulent collection of exquisite jewellery worn by Egyptian royalty.
Networking with IEEE Members: During our time in Egypt, participants had the privilege of meeting renowned IEEE members who shared their expertise and insights. These interactions allowed for meaningful discussions, knowledge exchange, and the establishment of valuable connections within the IEEE community.

Exploring Egypt by YESIST12 Committee Members

CONCLUSION

In conclusion, IEEE YESIST12 2023 provided a valuable platform for the exchange of innovative ideas and the dissemination of cutting-edge research in various fields. The YESIST12 Grand Finale in Egypt was an incredible journey that combined exploration of Egypt's cultural treasures with opportunities for networking and collaboration within the IEEE community.

We were so grateful to have our esteemed delegates grace their presence in our IEEE YESIST12 2023 Grand Finale. Prof. Ismail Abdel Ghafar Ismail Farag, President of AASTMT; Eric Berkowitz, Director of Membership, IEEE Computer Society; Mike Hinchey, IEEE R8 Director Elect and Professor, University of Limerick; Nehad El-Sherif, Founder and President, MNKYBR Technologies Inc.; Lenin Raja, AA Electro Magnetic Test Laboratory Private Limited, Gurgaon; Bozenna Pasik-Duncan, Professor, Kansas University; Prof. Akram Soliman Elselmy, Dean of the College of Engineering and Technology, AASTMT, Abu Kir Campus; Prof. Ahmed Hassan, Section Chair, Egypt; Prof. Yousry Elgamal, Former Minister of Education and AASTMT Senior Consultant; and Prof. Hesham Seoudy, Head of the Alexandria Engineers Syndicate.