

IEEE Madras Section Activities

IEEE ADSF SIGHT: Sea Safety Training Programmes

A series of training programmes on Sea Safety was organized by SIFFS in association with, KDFSF, TDFWPCL, FWS, FML and IEEE ADSF SIGHT. The training programmes were supported by MAERSK



On 14.06.2019 at Vallavilai, Kanyakumari District, Tamil Nadu



On 17.06.2019 at Vizhinjam, Trivandrum District, Kerala



On 19.06.2019 at Enayam, Kanyakumari District, Tamil Nadu



On 22.06.2019 at Puthiyathura, Trivandrum District, Kerala



On 24.06.2019 at Moothakara, Kollam District, Kerala

Mr. J. Vincent Jain, SIFFS-IEEE ADSF SIGHT
Mr. John Sebastian, IEEE ADSF SIGHT Volunteer
Mr. Christopher, IEEE ADSF SIGHT Volunteer
Mr. B. Shaji Jose, IEEE ADSF SIGHT Volunteer
Mr. Jude Verghese, CDO, KDFSF
Mr. John, KDFSF
Mr. Julian Teelar, FWS
Mr. James, SIFFS
Mr. Encilom, ADGAF
Mr. Augustin, TDFWPCL
Mr. Christudas Mendez, SIFFS
Mr. Ubald Xavier, SIFFS

Organizing Team Members

The Training: Participants were trained in reading marine chart, using GPS for finding location, marking location, recalling location etc. Made a demonstration on how to wear and use life jackets, life buoys, etc. A demonstration on navigational signals also conducted.

Comments from the Participants: The participants asked for on-board training with navigational lights and signals especially during night. They also asked for life jackets especially inflated, life buoys, GPS and other navigational and communication equipments on subsidized price. They requested to take steps to avoid the voyage of ships closer to shore which makes accidents.

Report by: J. Vincent Jain, jain1.siffs@gmail.com

IEEE ADSF SIGHT: Solar Awning for Fish Vending Women



An awning is designed and developed by J.Vincent Jain and is made in the boatyard of SIFFS. It is mainly for the fish vending women who normally sit under the hot sun throughout the day and during the night in dim light with the aid of kerosene light or candle. It might be also be useful for street vendors like vegetables, fruits; small eateries etc. Further it suit companies' marketing and promotional requirement –ideal for clubs, associations, corporate tradeshows and conferences.

Cut-pieces of fibre-glass plywood and PVC pipes from the boatyard are used for the fabrication of the awning thereby reducing the cost and purposeful use of the cut pieces which otherwise go waste. Continuously six hours can be used the light fitted in the awning with the support of the solar panel and battery. This foldable and portable awning will be a replacement of folding weather umbrella, cafe umbrella, restaurant umbrella, beach umbrella, promotional big umbrella etc. SIFFS would like to manufacture various types of awnings in attractive colours with customized logos and branding options. Thanks to Er. J.S. Shijo John-IEEE ADSF Volunteer-former student of Annai Vailankanni College of Engineering, Mr. Pradeepan and Mr. Praksh, SIFFS staff for associating and assisting with this work. Record our gratitude to MAERSK for the financial support to carry out the project successfully.



Fishing vending Women – Then



Fishing vending Woman – Now

Report by: J. Vincent Jain, jain1.siffs@gmail.com

Blue Economy

Blue Economy is all about economic activities dependent on marine resources. It comprises of various verticals like aquaculture, maritime tourism, blue-biotechnology, ocean energy, marine mining, offshore oil and gas etc. Blue Economy concept is important for sustainable development and economic growth. Oceans protect biodiversity, provide jobs, food, drive economic growth, keep the planet cool, and absorb about 30% of global CO2 emissions.

Pl. see a detailed article on Blue Economy elsewhere in this issue.

IEEE Computer Society Madras Chapter: Mini Tutorial on “Demystifying Internet of Things (IOT)”



The IEEE Computer Society, Madras Chapter in association with ACM Chennai, CSI Chennai and Meenakshi Sundararjan Engineering College had organised a mini tutorial on “Demystifying Internet of Things (IOT)” on 10th Jul 2019. The tutorial was aimed to provide an overview of IoT through the following sessions and make one familiarize with the fast growing technology framework.

- IoT: An Introduction
- Scope of IoT in Current and Future Applications
- IoT Architecture and Implementation
- IoT Protocols & Standards
- IoT for Consumer, Industry Applications
- IoT Business Case Studies & Use cases
- IoT Tools and Support
- Demo of IoT kit

The event attracted 130 participants. At the end of the tutorial, an assessment test was administered and the participants were presented with a certificate of participation.

IEEE Computer Society Madras Chapter: Mini Tutorial on “Demystifying Graphic Design, Animation and Visual Effects”



The IEEE Computer Society, Madras Chapter in association with ACM Chennai, CSI Chennai and Meenakshi Sundararjan Engineering College had organised a mini tutorial on “Demystifying Graphic Design, Animation and Visual Effects” on 10th Aug 2019. The tutorial was aimed to provide an overview of Graphics Design, Visual Effects and Animation through the following sessions and make one familiarize with the fast growing and employment oriented field.

- Introduction
- Scope of animation in current and future applications
- Graphic Design – Typography, Manipulation and Colour Wheel
- Animation – Types, 3D animation’s pipeline and concept of lighting
- Visual Effects – Rotoscopy and Compositing
- Demo projects
- Employment and Freelance Opportunities

The event attracted 123 participants. At the end of the tutorial, an assessment test was administered and the participants were presented with a certificate of participation.

IEEE Computer Society Madras Chapter: Mini Tutorial on “Demystifying Embedded Systems, System on a Chip (SoC) & Raspberry Pi”



The IEEE Computer Society, Madras Chapter in association with ACM Chennai, CSI Chennai and St. Joseph’s Institute of Technology had organised a mini tutorial on “Demystifying Embedded Systems, System on a Chip (SoC) & Raspberry Pi” on 31st Aug 2019. The tutorial was aimed to provide an overview of Embedded Systems, SoC, and highlight a popular SoC – Raspberry Pi. The sessions broadly covered the following:

- Embedded Systems - Past, Present & Future
- Embedded Systems - Power, Performance & Cost
- SoC & Embedded Systems
- Single Board Computers - An overview
- Use of Raspberry Pi as Computer
- Use of Raspberry Pi as Embedded System

The event attracted 182 participants. At the end of the tutorial, an assessment test was administered and the participants were presented with a certificate of participation.

IEEE Computer Society Madras Chapter: Mini Tutorial on “Demystifying Data Analytics”



The IEEE Computer Society, Madras Chapter in association with ACM Chennai, CSI Chennai , Amitysoft and Meenakshi Sundararjan Engineering College had organised a mini tutorial on “Demystifying Data Analytics” on 7th Sep 2019. The mini tutorial sessions broadly covered the following:

- Statistical Thinking
- Data Analytics for Better Decision-Making : Descriptive, Inferential, Predictive and Prescriptive

- Data Analytics Applications: Marketing & sales, Web & Social Media, Supply Chain & Logistics, Risk Management and Software Engineering
- Tools & Technology: R, Python, Tableau

The event attracted around 120 participants. At the end of the tutorial, an assessment test was administered and the participants were presented with a certificate of participation.

Panimalar Institute of Technology: STTP on Embedded System based Smart Farming with less water and fertilizers via IOT technologies



Panimalar Institute of Technology organized STTP on Embedded System based Smart Farming with less water and fertilizers via IOT technologies during 10-15 Jun 2019 in collaboration with IEEE SP, RAS, IAS, ISTE, IETE-ISF. The event was sponsored by AICTE. The highlights of the STTP include:

- Shri H R Mohan, Editor, IEEE India Council Newsletter & Chair, ACM Chennai Professional Chapter inaugurated the event and delivered the talk on Agriculture – IoT in India- Possible Embedded Solutions
- Dr. S. Mageswari, Professor & Head, Civil Engineering Panimalar Engineering College delivered a talk on Smart Farming Drip Irrigation System – Implementation Procedure
- Dr. N.R. Shanker, Managing Director, Chase Technologies, Chennai delivered a talk on Developing Drip Irrigation system followed by hands on session.
- Mr. S. Kalidas, CEO, IF and FOR ENDEAVOURS, Chennai delivered a talk on IoT Embedded Solutions for Sprinkler Irrigation System followed by a hands on session.
- Dr. N. Pughazendi, Professor, Panimalar Engineering College, Chennai delivered a talk on Sprinkler Irrigation System-Implementation aspects – IoT
- Mr. M. R. Senthil Kumar & his team from Pantech ProEd Pvt. Ltd, Chennai handled the hands on sessions.
- Dr. S. Ganesh, Professor, Department of ECE, Panimalar Institute of Technology delivered talk on Drone Technology for Smart Farming,
- Dr. Athif Shah of ABE Semiconductor Design, Chennai delivered talk on Embedded Systems IoT for Hydroponics Farming.
- Dr. A. Latha, Associate Professor, Panimalar Engineering College & Dr. S. Sathiya Priya, Prof ECE delivered talk on Precision Farming Implementation aspects.

STTP motivated participants to increase the activities of smart farming through IoT technology which ultimately leads to more development of agricultural commodities. The STTP also provided an outcome beneficial to aid our Indian Agricultural Market especially consortium of farmers through the knowledge gained by the participants. Dr. M.P. Chitra, Head ECE & Dr. M. Prem Kumar, Prof ECE were coordinated the event.

According to a new market intelligence report by BIS Research, the global smart farming market is expected to reach \$23.14 billion by 2022, rising at a compound annual growth rate (CAGR) of 19.3% from 2017 to 2022.

Panimalar Institute of Technology: YESIST1: IEEE International Project Competition – Prelims 2 – Innovation Challenge & Junior Einstein Track



The IEEE SB of Panimalar Institute of Technology organized the prelims round of Innovation Challenge & Junior Einstein Track of YESIST12 2019 with the theme “PREPARING FOR FUTURE: SUSTAINABLE TRANSFORMATIVE TECHNOLOGIES” on 13th Jul 2019. The event started with a welcome note followed by the project demonstration. The chief guest Prof. P. Subramanian, Chairman, IEEE COMSOC Madras Chapter evaluated the projects. All teams were given ample time to head their demonstration. A great opportunity was provided to all the budding inventors in our campus. 28 teams

participated in the event. During the valedictory session winners were announced and awarded with cash prize worth Rs.10,000. The event was coordinated by Mr.M.Arun, Assistant Professor ECE.

The winners of the Innovation Challenge: R. Sathish Kumar, B. Praveen, J. Udhaya ,S. Srinivasan of T.J.S Engineering College for their project titled “Design And Fabrication of Reverse Gear Mechanism For Handicapped Four Wheeler Vehicle”.

The winners of the Junior Einstein Track: Krishan Shankash Manikandan, Kishore.S, K.S.Sai Harshiyh for their project titled “Highway Vertical Axis Wind Turbine for Power Generation”.

Report by Mr. M. Arun, SBC, PIT SB, arunmeieeee@gmail.com

SSN College of Engineering: RSC'19: Research Scholars' Colloquium



The RSC'19, the Research Scholars' Colloquium was organized on 21st August 2019 at the Dept. of IT, SSN College of Engineering. In the colloquium supported by IEEE Computer Society Madras Chapter and ACM Chennai Professional Chapter, the scholars were introduced to the applications of IT in health care domain by Dr. S. Mohanavalli. The discussion on open research issues in the fields of IoT Security was presented by Dr. S. Chithra. The different kinds of distances and their significance in developing research models were elaborated by Dr. R. Srinivasan. The ways to demystify journal publications was shown by Dr. N. Bhalaji and Dr. S. Karthika discussed the vital questions to be answered under different sections of a research paper. There was an interactive session with the participants by Prof. Madhavan Mukund, Chair of Research Board, ACM India Council and Prof. Venkatesh Raman, Vice-President, ACM India Council to identify the research needs of the scholars. Dr. S. Chitra Babu, HoD and Professor, Dept. of CSE and ACM-W Chair, SSN CE also participated in the discussion. The event had an active participation by 30+ faculty members and research scholars from different institutions like CEG Anna University, Sri Sai Ram Engineering College, SRM Institute of Science and Technology, Avinashilingam University, Sree Sastha Institute of Engineering and Technology, Rajalakshmi Engineering College, Annai College of Engineering and Technology, K. Ramakrishna College of Engineering and SRM Valliammai Engineering College. Dr. S. Mohanavalli, Dr. S. Chithra, Dr. N. Bhalaji and Dr. S. Karthika, took the lead in organizing this colloquium.

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