

## IEEE Madras Section Activities

### IEEE IAS & IEE TEMS Madras Chapter

#### National Technology Day Conference on “Inclusive Smart Governance”



Madras Chapters of IEEE Industry Applications Society, & IEEE Technology and Engineering Management Society in association with L&T Smart World and Communication conducted the “**National Technology Day Conference**” on “**Inclusive Smart Governance**” on 10th May 2019 at Chennai L&T HQ Campus. The Conference commenced with Inaugural Session & Lighting of Digital Lamp by the dignitaries. Mr. R Srinivasan, EVP & Head, Smart World & Communication (SW&C) and Vice Chairman, IEEE IAS Madras Chapter welcomed the delegates and set the context for the conference on the significance of smart Governance and its impact on social sectors namely Education, Health and Agriculture. He mentioned that the Annual IEEE conference is organized by SW&C to coincide to celebrate May 11 as National Technology Day to mark India’s technological advancements.

Keynote Address was delivered virtually by Mr. S. Rajavel, Sr. VP & Head, Water, Smart World & Communication, Chairman, IEEE-IAS Madras Chapter. Mr. Rajavel appraised the gathering, of various smart city project implemented by SW&C and how it is now poised to extend the same to the rest of country.

Mr. H.R. Mohan, Editor, IEEE India Council Newsletter & Coordinator, R10 IEEE CS & Chair R10 Sub-Committee delivered a presentation on the Smart Governance emphasizing its significance to bring in transparency and accountability. He conducted a game of Bingo with a quiz on the various Government initiatives which kept the audience actively engaged.

In an informative session, Ms. Priya K Murthy, Head Enterprise Business , Acer India presented the different learning styles of a traditionalist Vs Gen Y & Z. She emphasized on the disruptive power of e-education in terms of quality, affordability, accessibility, personalized content management. With the ever changing landscape in education sector to match the emerging demand for new skillsets, ways of overcoming challenges faced by India through e-education with a blended learning approach was presented. Audience were familiarized to different e-learning models and the impact that it could have on imparting quality education to the remotest of rural areas.

In a very interactive session, Mr Harsha Muroor Founder and CEO, Teslon Technologies Pvt. Ltd. and his team commenced their presentation with the various healthcare problems prevailing in the country, including accessibility, lack of training to medical practitioners, reducing doctor-patient ratio. Benefits of Electronic Health Records, with way of ensuring data privacy in handling the e-Records & usage of blockchain was explained. Telemedicine portal which connects patients & doctors virtually is gaining momentum. Smart pharmacy ensures access of medicine for all by connecting Pharma producer to consumer through block chain intervention. The application of AI & machine learning in patient care & health sector was presented. The total Teslon package of complete hospital management and the impact of the usage was elaborated with the real time demo of a Smart health checkup Kiosk.

Mr. Kunal Prasad, COO & Founder, CropIn Technologies, presented the session on e agriculture. Cropin specializes in providing SaaS solution to agri businesses globally. Various farm management solutions, business intelligent solutions, input channel management, plot level analysis that aids in crop prediction, yield calculation methods were demonstrated to the participants. Integrated value chain platform was showcased to explain how the holistic digitalization of all the stakeholder platforms can result in tremendous revenue & reachability. Enormous database from agritech can be used towards turning around agri sector by leveraging Analytics & Predictive techniques.

Mr Madhukar Srivatsava, CTO, SWC emphasized the importance of rural Communication and the various challenges mitigated during implementation of Bharatnet project. He explained that the 3 key focus areas on Digital Infrastructure consists of Utility to Every Citizen, Governance & Services on Demand, Digital Empowerment of Citizens. His list of benefits of having a digital village and how it is achieved by communication network was well received by the audience.

Mr. C Krishnan, Project Director of Idisha Early Warning Dissemination System (EWDS) detailed the technology architecture and functioning of EWDS, a project of national importance and first of its kind in the country, funded by World Bank. He demonstrated how effectively the project had helped the state government in disaster readiness and its management preventing loss of precious lives during the recent Cyclone Fani.



The event was organized offering free guest Wi-Fi facility, e-gate pass, e-registration desk, online feedback forms etc. and was widely appreciated by the IEEE members and the dignitaries. The project staff could virtually take part in the event as it was live streamed in L&T@work.

The conference ended with the vote of thanks delivered by Mr. Kiran Kumar. The conference was well attended by over 100 external delegates comprising of engineering students, academicians, research scholars, scientists, industry professionals and IoT enthusiasts and was highly appreciated.

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## IEEE Computer Society Madras Chapter

### Mini Tutorial on Demystifying Machine Learning & Artificial Intelligence



What ever may be the new technology, the initial wave brings in too many different and confusing ideas mixed with new acronyms and terminologies. IEEE CS Madras in association with ACM, CSI and initiated 'Demystifying' series of programs for the benefits of IT community. The first in the series titled 'Demystifying Machine Learning & Artificial Intelligence' was organized in two batches on 18th and 25th of May 2019 with the support of Amitysoft, a two-decade old pioneer in career transformation service provider. The program was delivered by Ms. Rohini, Head, Advanced Technology Labs of Amitysoft Technologies supported by Ms. Valli.

The program brought out how Machine Learning & AI is different from conventional programming. It brought clarity on what is Data Analytics, what is Machine Learning and What is Artificial Intelligence. The program presented an innovative classification of algorithms based on their nature which helped the participants to understand the entire algorithms space in a matter of couple of hours. While several Amitysoft developed case studies on implementation of the algorithms were demonstrated, interesting videos of popular AI algorithms added value to the program.

Srikanth Aravamudhan, Chief Technology & Innovation Officer and K R Jayakumar, Director of Amitysoft added value to the program by sharing their insights. Lively interaction with participants made the program interesting and absorbing from the beginning to the end. The feedback from 45 participants attended the program was excellent. Almost everyone said that they would be able to confidently talk about Machine Learning & AI post attending this program. Participants mentioned that they look forward to many such sessions in the future. There was a test conducted at the end of the program. Mr. H R Mohan, Imm Past Chair & Chair, Spl. Events of IEEE CS, Madras who coordinated the programme awarded certificates to the participants. Mr. Johnson, Head of Human Energy Augmentation Team & General Manager (Business & Strategy) at Amitysoft was instrumental in organizing this program and ensuring its success with the help of his able team.

A two day exposure programme on “Deep Sea Fisheries”



IEEE ADSF SIGHT organised a two day exposure programme on “Deep Sea Fisheries” for engineering students and engineering college professors in association with IEEE Madras Section, IEEE Student Branch of Annai Vailankanni College of Engineering, IEEE Student Branch of DMI Engineering College and IEEE Student Branch of Hindustan Institute of Technology and Science during 20-21 May 2019.

On 20-05-2019, the team arrived at SIFFS (South Indian Federation of Fishermen Societies) Boatyard, Veli Trivandrum where the first day programme was organized. Navigational instruments, safety equipments, satellite phone, VHF, and other fishing items are arranged for the visitors in the boatyard. They could see the building of various sizes of boats made by Fibreglass and plywood. They interacted with experienced deep sea fishermen from Thoothoor area, Kanyakumari district and experts Shri. Satish Babu, IEEE Former Chief Executive, SIFFS & Humanitarian Activity Committee, Dr. Manoharan Arumugam, Chair: IEEE Madras Section and Shri. Joseph, Chief Executive, SIFFS. The second day (21.05.2019) programme was organized in KDFSFS (Kanyakumari District Fishermen Sangams Federation), Nagercoil. Shri. Mariyadhass, Chief Executive-KDFSFS has played a lead role in the programme along with his colleagues.

**Discussions**

Gillnets and long lines are the major fishing gears used for deep sea fishing by the fishermen of Thoothoor area. The duration per fishing voyage is 30 days and they do fishing in all along the east coast and west coast of India. Government of Tamil Nadu supplied satellite phone very recently to a group of 8 boat owners. The operational cost per call is Rs.35 and fishermen considered this as expensive. The Distress Alert Transmitter (DAT) supplied to the fishermen on subsidised price by the Department of Fisheries, Government of Tamil Nadu is not an effective devise. So, fishermen are not shown interest in buying the devise. The continues disasters of Tsunami-2004, Yemyin-2007, Nargis, Nisha-2008, Phyan-2009, Laila-2010, Thane-2011, Nilam-2012, Helen, Lehar-2013, Hudhud-2014, Vardah-2016, Okhi- 2017, Gaja- 2018 and Fani-2019 inflicted serious damage to the fishermen and their property. Engineers could develop a system of knowing such kind of disaster in advance in their fishing boat so that they could find the means of saving their lives. The most important concern in the fishing sector is the safety of life at sea. Collision between ship and fishing boats are becoming very common now a days and it is one of the urgent needs to be addressed. Most of the time fishermen are not getting the better price for their catch due to unhealthy practices of middlemen, local merchants, lack of good preservative, post harvest loss etc. Fish marketing societies (FMS) are formed in early eighties by KDFSFS to save the fishers from the clutches of middlemen.



## Demonstrations

A solar powered mobile phone charging station designed by Mr. Vincent Jain for the Veli boatyard is inaugurated by Dr. Manoharan. Mr. Jain also made a demonstration of fire alert system for using in the fishing boats and in boatyard which is also developed by him. His another demonstration in the programme is various kinds of LED lights covered by plastic bottles, bamboo, coconut shell, sea shell, cloth, pot, arak nut leaf, palm leaf etc. He is the creative designer of all these products. He requested the support of engineers to improve the designs of the products. This can be further expanded to a business which could be adopted for women Self Help Groups.

Prof. Gaswin Kastro was selected as “Best Faculty Volunteer of IEEE ADSF SIGHT” for the year 2018. He was honoured by a memento and a tree plant. Shri. Satish Babu, planted a tree in the Veli boatyard. He requested to everybody to avoid using plastics which is not only harmful to the human population to the world.

At the end the day team visited Jeppiar Fishing harbour, Muttom to see the live activities of fishing.

The following areas are included in the exposure programme.

1. Fish landing centre
2. Fish market
3. Fish marketing societies
4. Boat building centre
5. Sea safety items
6. Navigational equipments
7. Fishing craft and gears
8. Interaction with fishing experts and fishermen leaders
9. Meeting with IEEE experts in fishing

Colleges participated

1. Annai Vailankanni College of Engineering-Azhakapuram
2. DMI Engineering College-Aralvaimozhi
3. Hindustan Institute of Technology and Science-Chennai
4. Loyola Institute of Technology and Science-Thovalai
5. Sri Sairam Engineering College-Chennai
6. Stella Mary's College of Engineering-Nagercoil
7. Holy Cross College –Arts and Science-Trichy
8. St. John's College-Arts and Science-Muttom

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## Seminar on Ocean Pollution and Ocean Safety



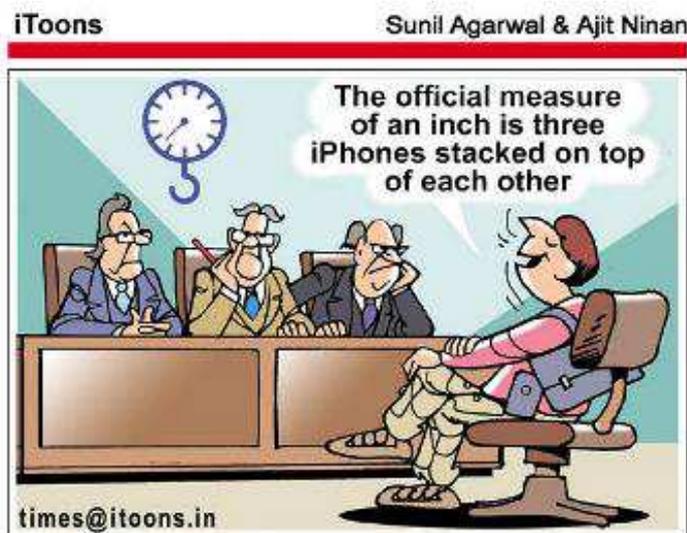
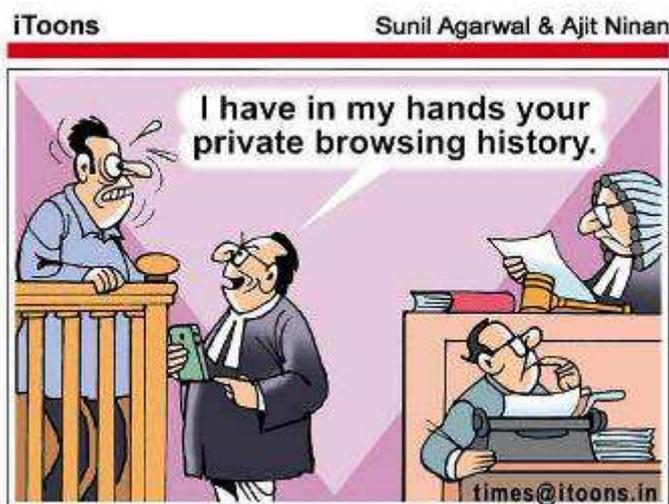
Oceans help feed the world, provide a living for millions of people, and are home to most of the life on the planet. But development, over fishing, pollution and introduction of exotic species in marine habitats has jeopardized marine ecosystems as well as biodiversity. Construction activities, sewage and pollution from industries in the field large cities threaten coastal eco-systems. So the amount of pollution in our ocean waters is alarming. In Indian Ocean around 5-6 million tones of petroleum and oil have been discharged into it—which is around 40% of the total petroleum spill in the world's waters.

Discussing ocean pollution brings up a diffuse, complex series of issues. Nevertheless, some pollution problems can have been successfully addressed. Since the network of oceans on this planet is interconnected, the pollution issue will only truly be solved by consistent improvement in areas across the globe. Knowing that the growing human population has intensified

the problem of ocean pollution, it is clear that we each need to get involved in contributing to the solution. It will require high degree of participation and collaboration at the individual, family, community, industry and government levels. Efforts at all of these levels become more effective with elevated public awareness about pollution source and impacts. Continued public support is vital for research, monitoring and further development of pollution reduction strategies and technologies.

To address this serious issue, South Indian Federation of Fishermen Societies (SIFFS) organized an awareness seminar by inviting fisherwomen, fishermen, youth from the community and students. The awareness seminar “Ocean Pollution and Ocean Safety” organized jointly with Kanyakumari District Sangams Federation (KDFSF), Friends of marine Life(FML) and Institute of Electrical and Electronics Engineers Artisanal Deep Sea Fishers Special Interested Group on Humanitarian Technology (IEEE ADSF SIGHT). It was supported by MAERSK, the largest container ship and supply vessel operator in the world since 1996. It was held on 28.05.2019 at Chinnathurai, Kanyakumari district. Mr. Robert of FML was the resource person for the seminar. He was assisted by Ms. Gouthami of FML. Mr. Vincent Jain of SIFFS-IEEE ADSF SIGHT organized the seminar along with his colleagues Mr. Christudas Mendez and Mr. Ubald Xavier. Fishers’ representatives from women Self Help group, Fishermen cooperative society, youth with a total 37 participants attended this seminar.

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**Google Maps to let India users see live train, bus travel status:** Google Maps has added new features to let India users check live bus travel times in 10 cities and also see live status of trains. It will also offer mixed-mode commute suggestions that now combine auto-rickshaw and public transport.

**Zomato announces 26 weeks paid parental leave for men, women:** This also will apply to non-birthing parents and in cases of surrogacy, adoption and same-sex partners. Further, new parents will also be given an endowment of \$1,000 per child.