

Tech and Human Resources Seminar by IME(I) and IEI

Chennai

The Institute of Marine Engineers (India), Chennai Branch, along with The Institution of Engineers (India) Tamil Nadu State Centre, in collaboration with the Marine Engineering Division, has co-hosted a Technical Seminar on the theme “**Future Technologies, Human Resources Development, and Entrepreneurship within the Marine Industry.**” This event took place on the 22nd of July, 2023, at the IEI TNSC Auditorium located in Chepauk, Chennai.

Mr. S. Kannan, as the Chairman of IEI TNSC (Tamil Nadu State Centre), initiated the gathering and extended invitations to all members of the fraternity attending the meeting. Following this, Mr. Sanjeev S. Vakil, the Chairman of IME(I) Chennai Branch, greeted the attendees and introduced the Chief Guest, Mr. C. V. Subba Rao, who holds the position of Managing Director at Sanmar Shipping Ltd.

The speakers were introduced by Mr. R. Muthuswamy, Hon. Treasurer, Mr. Suresh Shenoj, Vice Chairman and Mr. S. Rengaraju, IME(I) Chennai Branch member. The Session was moderated by Mr. Shenoj.

The following topics were presented by eminent speakers from the industry:

1. Mr. Manoj Kumar Pandit, Faculty, HIMT College spoke about the recent developments in Maritime Industry toward green energy transition. As a part of



these initiatives he spoke on usage of hydrogen fuel cell technologies and electrical propulsion for future ships. Having considered these green energy transitions already happening worldwide he also emphasised how India can benefit from such technology developments through our Make in India initiatives and how various maritime technology start-ups can emerge as ancillary supports to the Indian as well as Global shipbuilding projects working on such green energy transition projects.

2. Capt. Arvind Shankar, the Culture and Capability Manager at Maersk and a champion of diversity in the maritime industry, delivered a compelling presentation on closing the gender gap in seafaring to foster greater ‘thought diversity.’ He emphasised the stark reality of only 0.5% Indian women seafarers today, underlining the need for inclusivity and its advantages.

Through his presentation, Capt. Arvind shed light on the global and national commitments supporting industry transformation, such as the UNSGD goal 5 and the Maritime India Vision 2030. These initiatives reinforce the importance of promoting gender equality and diversity in the maritime sector.

Maersk’s proactive approach towards diversity was evident as Capt. Arvind shared the various actions taken by the organisation. They have focused on creating awareness, transforming the learning journey, and up skilling and training both ship and shore organisations. These efforts ensure that women cadets and officers





feel psychologically safe in their learning and work environment, enabling them to reach their full potential and grow their careers confidently.

Capt. Arvind, aptly nicknamed the “Crusader in Blue,” has not only highlighted the significance of gender diversity but also demonstrated how it aligns with global and national visions. His dedication to this cause sets an inspiring example for the industry to follow, making seafaring a more inclusive and forward-thinking domain.

3. **Mr. T. S. Devananda**, Chief Engineer, Faculty, MASSA, made an excellent presentation and spoke about Powering sustainable shipping by moving towards zero carbon.

Ship powered by LNG -ETHANE-METHANOL-LPG-AMMONIA

Main Engine: ME-GI: ME-GA: ME-GIE: ME-LGIM: ME-LGIP

And by year 2024 ship would run on Ammonia.

Main Engine: ME-C: Engine running mode can be changed from

Economy mode to Emission Mode to reduce NOx Value for Tier III

Main Engine are equipment to reduce NOx value to Tier III

Selective Catalytic Reduction (SCR)

Exhaust Gas Recirculation (EGR)

Water in Fuel

METHANE SLIP



Methane slip is unburned CH₄ which is not participating in the combustion process

Methane as GHG is 20–25 times more harmful than CO₂

So Main Engine is pressure reduced from 300 bar to 200bar to 10 bar to reduce the methane slip.

Finally Main Engine is developed to run on Ammonia.

Technical Session - Paper presentation for students - Students paper presentation session was moderated by Dr. K. Sivasamy, Ex. Committee Member, IME(I) Chennai.

1. Cadet. Azizur Rahman , AMET University
2. Cadet. Richardson Elias Robert, Maritime Foundation
3. Cadet. Mahiban Fernando & Cadet. Rohith

Mementos were presented to the Chief Guest and to all three speakers followed by Participation Certificate to the students.

The audience consisting of IME(I) Chennai Members, Master Mariners and non-member Marine Engineers from the shipping industry were attentive and seemed to have enjoyed the presentation.

Vote of thanks was given by **Mr. K.N. Sivaraju**, Hon. Secretary IEI TNSC.

The seminar was followed by lunch.