



BULLETIN



Dr. V. KARTHIKEYAN, FIE.
Chairman

Er.D.GOKUL, MIE
Honorary Secretary

Vol. 23 : No.5

May 2024

From the Chairman's Desk.....



Dear Fellow Engineers,

It is my pleasure to connect with all of you through our News Bulletin. I am delighted to share that The Institution of Engineers (India) Tamilnadu State Centre celebrated World Telecommunication and Information Society Day with the theme "Digital Innovation for Sustainable Development" on 18th May 2024 (Saturday), at 4:00 pm at the IE(I) TNSC Auditorium in Chennai. The Chief Guest, Mr. Bharathi Athinarayanan, Technologist and National MAARG Mentor from Bangalore, delivered an inspiring address to the audience.

The Tamilnadu State Centre of the Institution of Engineers (India) organized a guest lecture on the topic "Upcoming Green Technology in Marine Engineering" on 16 May 2024, at 6:30 pm through an online Zoom meeting. Additionally, they observed National Maritime Day with the theme "Sustainable Shipping: Opportunities and Challenges" on 11 May 2024,

at 6:00 pm, also through an online zoom meeting.



I am very happy to inform you that the IE(I), Headquarters has approved two One Day Seminars, four All India Seminars, one All India Workshop and two National Conventions.

The Tamil Nadu State Centre is organizing a One Day Seminar on "Waste to Energy Technology" in association with Thiagarajar Polytechnic College on 05 July 2024, at the TPT Alumni Auditorium in Salem. Additionally, an All India Seminar on "Green Manufacturing" will be conducted in association with Thiagarajar Polytechnic College on 26-27 July 2024, at the TPT Alumni Auditorium in Salem. I invite all corporate members to participate in both seminars.

Our technical lecture programs will be conducted in both online and offline modes. The details of these programs will be communicated to all members via email and social media. I encourage all our members to actively participate in the

meetings, seminars, workshops, and conferences.

I express my gratitude to the members and entrepreneurs who contributed 65 chairs for our TNSC auditorium.

I am eager to significantly increase the membership of the Tamilnadu State Centre and to establish or renew Student Chapters and Institutional Memberships in universities, engineering colleges, and polytechnic colleges across Tamil Nadu. I earnestly seek the support of all our members to achieve these objectives.

I request all current corporate members to complete the "Know Your Membership (KYM)" form to update our database. Please send the completed form to the IE(I) TNSC office or via email to ieitamilnadu@gmail.com or tncs@ieindia.org. This notice is important, so please share it with your fellow IE(I) members and a colleagues.

Thank you all once again.

Regards,

Dr.V.Karthikeyan,FIE.,
Chairman, IE(I),TNSC

From Hon. Secretary Desk....



Dear Corporate Members,

Greetings to all of you!

I am truly honoured to be the Honorary Secretary for the sessions 2023 – 2025. I would like to offer my thanks to the members for electing me as the Honorary Secretary for the sessions 2023 – 2025.

I request all our committee members to arrange for technical activities in their respective divisions.

We have successfully conducted four guest lectures and two statutory days in the past two months.

1. Guest Lecture on the topic "Beyond the Visible: A Journey into Nanotechnology and Photonics"
2. Introduction to Rocket Science

3. Guest Lecture on the topic Managing Stress and Developing Resilience
4. Guest Lecture on the topic Upcoming Green technology in Marine Engineering
1. National Maritime Day Theme "Sustainable Shipping – Opportunities and Challenges"
2. World Telecommunication and Information Society Day "Digital Innovation for Sustainable Development"

All our technical activities are conducted through hybrid mode and the program details are mailed to all corporate members. I request all the corporate members to participate in the meetings.

Our goal is to receive the Best State Centre Award for the year 2024 -2025. With the full support of Committee Members and Corporate Members, we can achieve our goal.

I request all our corporate members to visit our IEI TNSC YouTube Channel and Subscribe for further notification of technical events.

Thankyou all for your continuous support and participation.

Er D Gokul, MIE
Honorary Secretary, IE(I) TNSC

National Maritime Day (11.05.2024)

Theme: “ Sustainable Shipping – Opportunities & Challenges”

National Maritime Day is observed as a Statutory Day by IEI on 5th April every year to commemorate the maiden voyage of the first Indian owned commercial vessel SS Loyalty that set sail from Bombay (Mumbai) to London, on 05 April 1919. National Maritime Day commemorates our nation's entry into the international mercantile shipping community in 1919. The Tamilnadu State Centre of the Institution of Engineers (India) observed the National Maritime Day on the theme “Sustainable Shipping: Opportunities and Challenges” on **11th May 2024** at **6.00 pm** through online Zoom Meeting.

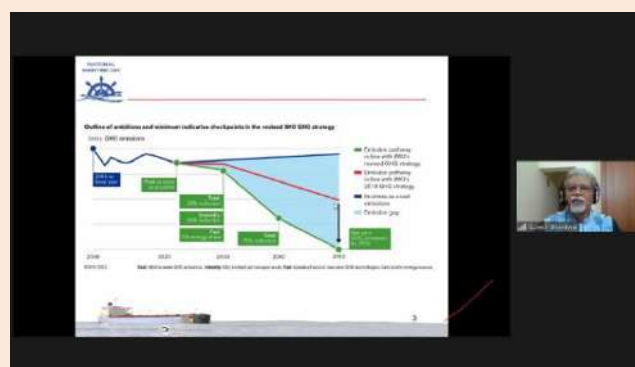
At the outset., **Dr V Karthikeyan**, Chairman, IE(I) Tamilnadu State Centre welcomed the gathering. **Er R Muthusamy**, Committee Member, IE(I) TNSC introduced the Chief Guest



Dr (Captain) Suresh Bhardwaj, Resident Director & Principal, MASSA Maritime Academy, Chennai.

Dr (Captain) Suresh Bhardwaj started his lecture with power point presentation. This decade, the 2020's, is proving to be the decisive decade for the decarbonization of shipping. Regulations from key bodies like the IMO and EU are taking shape now, that are driving industry stakeholders to implement plans now, which will influence the direction of decarbonization efforts in the coming decades.

In July 2023, the IMO completed the first revision of its greenhouse gas (GHG) strategy, and significantly strengthening the ambitions for international shipping compared with the initial goal for a 50% GHG reduction by 2050. Taking 2008 as a baseline, the revised strategy now aims to reduce, well-to-wake, GHG emissions by 20% in 2030, by 70% in 2040, and to reach net-zero 'by or around' 2050.

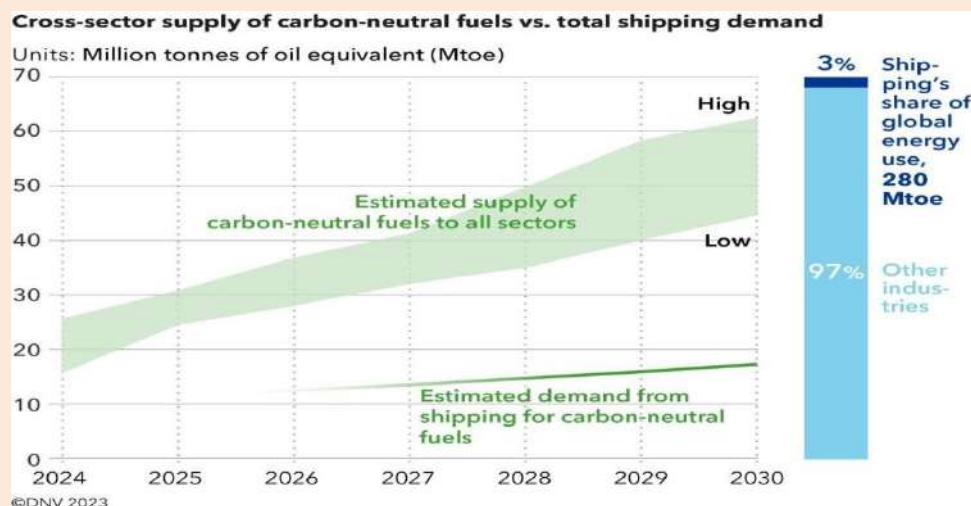


The GHG Strategy now also addresses lifecycle GHG emissions from shipping, with the overall objective of reducing GHG emissions within the boundaries of the energy system of international shipping and preventing a shift of emissions to other sectors. !

Achieving such decarbonization goals requires a large-scale transition to new fuels, which is already underway!

The stats reveal that shipping would need 30-40% of the estimated global supply of carbon-neutral fuels if it is to meet expected demand of 17 Mtoe (Million tonnes of oil equivalent) per year, by 2030!, taking into account the IMO's current GHG strategy.

So, the time is running out on the shipping's environmental calendar, as global climate emergencies multiply, and from that perspective, this 61st National Maritime Day was very appropriately themed “Sustainable Shipping: challenges & opportunities” First



things first, there is too much of “Green washing” happening with people and organizations over-stating, even making false or misleading statements about sustainability practices.

So, ESG (Environment, Social, and Governance) issues holistically are coming into close scrutiny.

While sustainability, ethics and corporate governance are generally considered to be non-financial performance indicators, the role of an ESG program is to ensure accountability and the implementation of systems to manage a company's impact, such as (1) its carbon footprint and (2) how it treats employees, suppliers and other stakeholders.

It also contributes to broader business sustainability efforts for long-term success based on responsible corporate management and business strategies.

Shipping is the backbone of global trade with over 90% of the world's trade is transported by sea and is responsible for 3% of global greenhouse gas (GHG) emissions (while the whole transport sector has 23% share).

Beyond emissions, the wider environmental impacts include transfer of alien species in ballast water, oil spills, underwater noise

pollution, garbage disposals and sustainable port practices.

On the social front, there are 1.6 million seafarers of global nationalities who ensure global trade flow. Social initiatives that promote work culture enhance connectivity, safety and health's as a whole are imperative. DEI (Diversity, Equality, Inclusion) initiatives, where a culture where every crew member's background and identity including women in maritime are valued and included, is receiving increased attention, which is breaking barriers and fostering an inclusive maritime.

So, the challenges faced by the maritime industry are multifaceted, and addressing them is crucial for the well-being and effectiveness of our experienced seafarers and for the entire industry.

Er D Gokul , MIE, Honorary Secretary of IE(I) Tamilnadu State Centre proposed the vote of thanks.

Committee Members, Local Centre Chairman, Corporate Members and Students from Various engineering colleges joined the program.

This program is available in IEI TNSC Youtube channel:

https://youtu.be/tHNy0aku_xU?si=kBMgkaYM4YbAY908 . Kindly subscribe and share with your

friends and colleagues

Webinar on “Upcoming Green Technology in Marine Engineering” (16.05.2024)

The Tamilnadu State Centre of the Institution of Engineers (India) organised the guest lecture on the topic **Upcoming Green technology in Marine Engineering** on **16th May 2024** at **6.30 pm** through online Zoom Meeting.



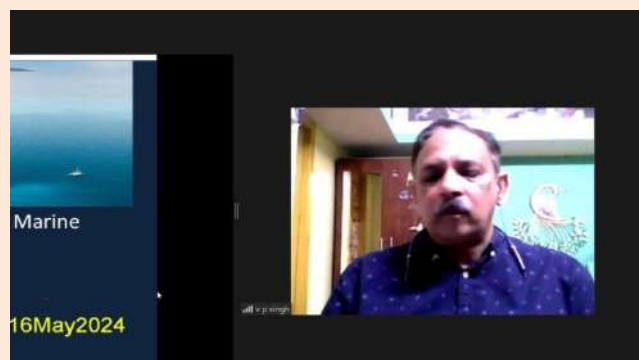
At the outset., **Dr. V. Karthikeyan**, Chairman, IE(I) Tamilnadu State Centre welcomed the gathering. **Er. R. Muthusamy**, Committee Member, Marine Division, IE(I) TNSC introduced the guest speaker **Er. Vijaya Pratap Singh, Chief Engineer, Merchant Navy (Retd.), Hon. Secretary, IE(I) Uttar Pradesh State Centre.**

The guest speaker presented his lecture with power point presentation. He started his speech with that the International Maritime organization has set an ambitious target to Shipping industry for or zero Green house gases for 2050. Shipping which consumes presently 300 million tones of fuel these producing more than a billion tones of green house gases.

Alternative fuels like Green Hydrogen, Methanol, Ammonia and nuclear power are some of the few options being explored. Marine Engineering has to step up to meet these

requirements and challenging targets. Major engine makers like WARTSILA and MAN are stepping with research and development on Methanol and ammonia as their adaptation is simpler.

Nuclear energy which is favorite with advanced navies is another good option however it has its own challenges in introduction to commercial shipping.



Er D Gokul, MIE, Honorary Secretary of IE(I) Tamilnadu State Centre proposed the vote of thanks.

Committee Members, Local Centre Chairman, Corporate Members and Students from Various engineering colleges joined the program.

This program is available in IEI TNSC YouTube channel:

<https://youtu.be/CYYi25kOcSo?si=Bh1hdJzonhftjwiN>. Kindly subscribe and share with your friends and colleagues.

World Telecommunication and Information Society Day (18.05.2024)

Theme: Digital Innovation for Sustainable Development"

The Institution of Engineers (India) TamilNadu State Centre celebrated the World Telecommunication and Information Society Day on the theme **"Digital Innovation for Sustainable Development"** on 18th May 2024 at 4.00 pm at IE(I) TNSC Auditorium, Chennai. Thematic Address was delivered by the Chief Guest Mr. Bharathi Athinarayanan, Technologist/National MAARG mentor, Bangaluru.



Dignitaries on the Dias

The program started with invocation. The welcome speech was delivered by Dr. V. Karthikeyan, Chairman, IE(I) TNSC. In his speech, he explained about the different stages and developments of digital innovation. Er. D. Arulselvan, Committee Member, E&T Division, IE(I) TNSC introduced the chief guest. Dr.S.Dharmalingam, Council Member delivered the theme of the World Telecommunication and Information Society Day. Dr V Karthikeyan, Chairman, IE(I),TNSC honoured the Chief Guest with shawl and memento.



Welcome Address by Chairman, IE(I), TNSC

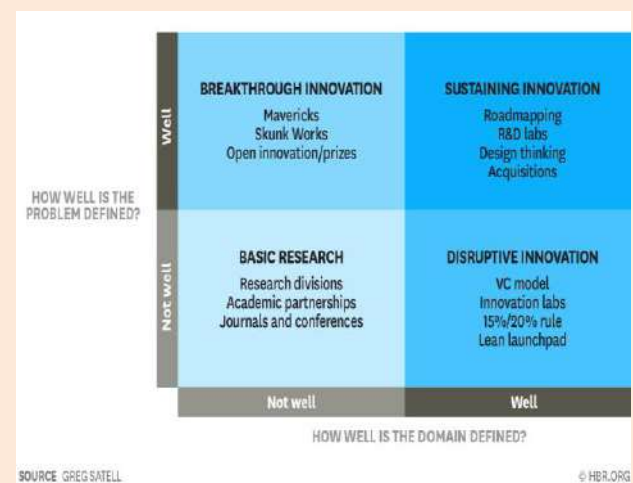
Thematic Address by Chief Guest



Thematic Address by Chief Guest by Mr.Bharathi Athinarayanan

Mr.Bharathi , Chief Guest started his speech with the following current challenges faced by digital innovation: insufficiency of appropriate policies, Lack of knowhow for innovators , Lack of understanding of the systemic issues in the environment and Lack of collaboration

Mr.Bharathi clearly explained about different types of innovations like Basic Research Innovation, Sustaining Innovation, Disruptive Innovation and Breakthrough Innovation with examples. He narrated about the innovation matrix by putting the parameters of problem definition and domain definition on two



separate axes. This matrix gives a good basic framework for determining what type of innovation to pursue.

He also analyzed innovations models by BCG research. This research determines which types of innovation models the leaders use, which models are most successful in which industries, and which underlying capabilities are necessary to deliver on each model. He also briefed about

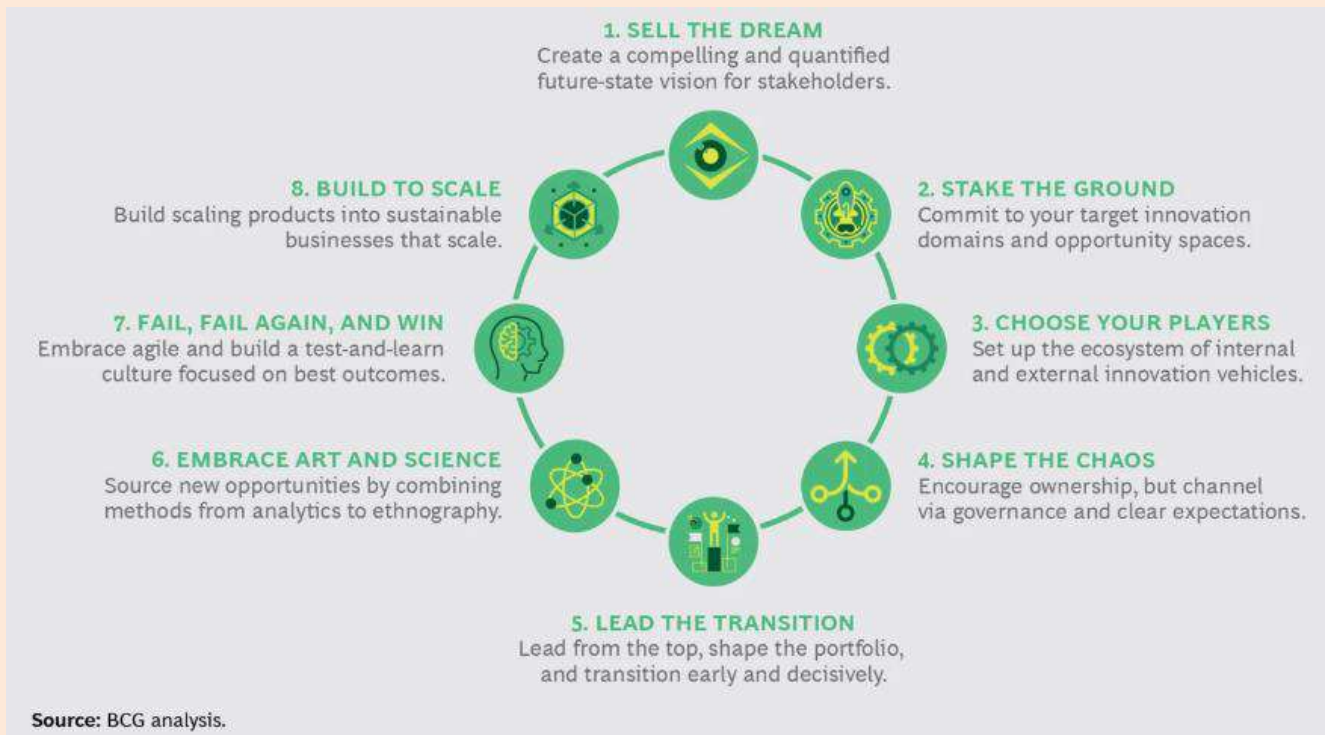
managed systematically, on multiple dimensions, to drive excellence and impact. Innovation strategy, regularly reviewed, sets direction and brings any disruption to the surface. Successive innovation sprints provide the opportunity to “test and learn” from failure



these models and the types of companies that embody them.

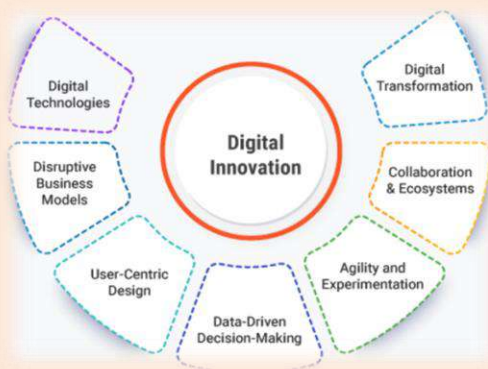
He then spoke about innovation journey and eight innovation principles. Leading companies see innovation as a journey that needs to be

and MVPs. Business build and scale up maximize the returns on the most promising inventions. And innovation enablement ensures that companies have the right capabilities to keep up with changing markets.



Eight Innovation Principles

He then discussed about the steps for sustaining innovation and the key components of digital innovation.



Key Components of Digital Innovation

By embracing these key components, organisations can harness the power of digital innovation to drive growth, enhance competitiveness, and deliver value to customers in the digital age.

He defined TRL and explained about the nine levels of TRL with examples. Technology Readiness Levels (TRLs) are a method for understanding the technical maturity of a technology during its acquisition phase.

RESEARCH DEVELOPMENT DEPLOYMENT	9	ACTUAL SYSTEM PROVEN IN OPERATIONAL ENVIRONMENT
	8	SYSTEM COMPLETE AND QUALIFIED
	7	SYSTEM PROTOTYPE DEMONSTRATION IN OPERATIONAL ENVIRONMENT
	6	TECHNOLOGY DEMONSTRATED IN RELEVANT ENVIRONMENT
	5	TECHNOLOGY VALIDATED IN RELEVANT ENVIRONMENT
	4	TECHNOLOGY VALIDATED IN LAB
	3	EXPERIMENTAL PROOF OF CONCEPT
	2	TECHNOLOGY CONCEPT FORMULATED
	1	BASIC PRINCIPLES OBSERVED

TRL Levels

More than 100 participants participated in the celebration. Participants shared their thoughts on the program. Special prizes were given by the Chairman to the students, **Er D Gokul**, Honorary Secretary of IE(I), TNSC proposed the Vote of thanks. The program ended with the National Anthem.

Introduction to Rocket Science (20.04.2024)

The Tamilnadu State Centre of the Institution of Engineers (India) organized an event on the topic “**Introduction to Rocket Science**” in association with Y-Capita and Rotary Club of Madras on **20th April 2024** at **2.00 pm** at IEI TNSC Auditorium, Chennai. The program started with prayer song followed by lighting of lamp by the dignitaries.



Honouring the Chief Guest Mr Jagadessh Kanna, CEO, Vaayusastra Aerospace

At the outset, **Er D Gokul**, Honorary Secretary, IE(I) Tamilnadu State Centre welcomed the gathering and briefed about the history of IEI. **Mr Jagadessh Kanna**, CEO, Vaayusastra Aerospace was the Chief Guest. He's been sharing his journey of rocket science to Rossion, and a video of rocket science has been shown to the participants.

The participants were shown a drone demonstration. The students were involved in the session and enjoyed the event by practicing rockets. The chief guest and the sponsors were honoured with shawl and memento.



Group Photo with Students

More than 80 students participated in the event and a shield was presented to the participants.

Mr Kaushik Palicha, Managing Director, Ramcharan & Co was the sponsor for the event.

Vote of thanks delivered by the **Er D Gokul**, Honorary Secretary, IE(I) Tamilnadu State Centre.

Know-Your-Member (KYM)

The Institution of Engineers (India) is updating the database of all its Corporate Members along with their achievements for which a Know-Your-Member (KYM) form has been introduced.

Every Corporate Member is requested to kindly fill up the form and forward it along with the self-attested copy of photo ID proof to the address given below:-

The Deputy Director (Membership)

The Institution of Engineers (India), 8 Gokhale Road, Kolkata 700020

Email: datamemb@ieindia.org

The form can be accessed & downloaded at:

https://www.ieindia.org/WebUI/ajax/Downloads/WebUI_PDF/HIGHLIGHTS_DOCUMENT-3332.pdf

Forthcoming Technical Activities

Date	Title	Venue
5 th July 2024	One Day Seminar on “Waste to Energy Technology”	Alumni Auditorium, Thiagarajar Polytechnic College, Salem
6 th July 2024	World Environment Day on the theme “Land Restoration, Desertification and Drought Resilience”	Salem
26 th & 27 th July 2024	All India Seminar on “Green Manufacturing”	Alumni Auditorium, Thiagarajar Polytechnic College, Salem
30 th & 31 st July 2024	All India Workshop on “Perspectives of Microbial Concrete & other Sustainable Construction Materials”	SRM Valliammai Engineering College, Kattankulathur
1 st & 2 nd August 2024	All India Seminar on “Advanced Technologies in Agriculture for Sustainable Development and its Applications”	SRM Valliammai Engineering College, Kattankulathur

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Bulletin

IF UNDELIVERED RETURN TO :

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