

LIGHTHOUSE

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R.L. INSTITUTE OF NAUTICAL SCIENCES

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CALL 06

On behalf of the RLINS Management I am delighted to extend our heartfelt congratulations to Cadet Palak Chauhan (July–December 2025 Batch) for being honored with the Academic Excellence Award and a cash prize of ₹25,000 by MASSA on the occasion of the Day of the Seafarer, celebrated on 25 June.

This prestigious recognition is awarded to women seafarers who have successfully passed the BEST Exit Examination on their first attempt and secured a top position among women candidates. Palak's achievement is a testament to her dedication, perseverance, academic excellence, and commitment to the maritime profession.

We also extend our sincere appreciation and congratulations to the RLINS faculty, instructors, and training staff, whose unwavering guidance, mentorship, and commitment to excellence continue to nurture and inspire future maritime professionals. This accomplishment reflects the collective efforts of a student determined to excel and educators dedicated to shaping capable and confident seafarers.

Palak, your success is a source of immense pride for the entire RLINS family and an inspiration to your fellow cadets. We wish you continued success, fair winds, and following seas as you embark on a bright and promising maritime career.

Congratulations once again to Palak and the entire RLINS team on this remarkable achievement.



With best wishes,

Er. L. ADIMOOLAM

Secretary,

RLINS.

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WOMEN IN THE MARITIME INDUSTRY: SHAPING THE FUTURE OF GLOBAL SHIPPING

Er..Balan Muthuramalingam, Principal-RLINS

The maritime industry is witnessing a transformative era in which diversity, inclusion, and equal opportunity are becoming integral to sustainable growth. Among the most significant developments is the increasing participation of women across the maritime spectrum—as seafarers, marine engineers, naval architects, surveyors, pilots, maritime lawyers, educators, researchers, regulators, and corporate leaders. Their growing presence is redefining the future of the global maritime sector.

Maritime excellence is determined not by gender, but by competence, professionalism, leadership, and integrity. Women continue to demonstrate exceptional capability in navigating complex operational environments, driving innovation, embracing emerging technologies, and contributing to safer, smarter, and more sustainable shipping.

As the industry advances towards digitalization, decarbonization, and autonomous technologies, fostering an inclusive workforce is no longer merely a social responsibility—it is

a strategic imperative. Empowering women through quality education, skill development, mentorship, and leadership opportunities strengthens organizational performance and enhances the resilience and competitiveness of the maritime sector.

At R.L. Institute of Nautical Sciences (RLINS), Madurai, we firmly believe that the future of maritime leadership lies in creating an environment where talent is recognized, nurtured, and empowered without barriers. We remain committed to providing equal opportunities and inspiring the next generation of maritime professionals to pursue excellence with confidence, courage, and purpose.

As we celebrate the achievements of women in the maritime industry, let us reaffirm our collective commitment to building a maritime ecosystem founded on diversity, innovation, mutual respect, and equal opportunity. Together, we can shape a future where every aspiring maritime professional has the opportunity to contribute, lead, and excel on the global stage.

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International Day of the Seafarer – 25 June

The International Day of the Seafarer, observed annually on 25 June, is a global tribute to the remarkable men and women whose professionalism, resilience, and unwavering commitment sustain international trade and keep the world connected.

More than 90% of global trade is transported by sea, making seafarers the indispensable force behind the global economy. Working in demanding and often challenging environments, they uphold the highest standards of safety, operational excellence, and environmental responsibility while ensuring the seamless movement of goods across continents.

As the maritime industry advances through digital transformation, decarbonization, automation, and sustainable shipping, the expectations from today's seafarers continue to evolve. The industry now demands professionals who combine technical competence with leadership, adaptability, ethical values, and a global outlook.

At R.L. Institute of Nautical Sciences (RLINS), Madurai, we are committed to developing maritime professionals

who are future-ready, globally competent, and driven by excellence. Through quality education, advanced simulation-based training, industry collaboration, and a culture of discipline and integrity, we prepare our cadets to contribute meaningfully to the ever-evolving maritime sector.

On this significant occasion, I extend my sincere appreciation to seafarers across the world for their invaluable service and acknowledge the unwavering support of their families. I also congratulate our cadets, alumni, faculty, and maritime partners who continue to uphold the proud traditions of Indian seafaring.

Let us reaffirm our collective commitment to building a safe, sustainable, innovative, and globally competitive maritime future. May every voyage be guided by professionalism, responsibility, and excellence.

Happy International Day of the Seafarer. Fair Winds and Following Seas.

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T.V.R Nagar, Aruppukottai Road,
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On 14 June, RLINS proudly inaugurated its Full Mission Engine Room Simulator (ME Engine Model), marking a significant milestone in enhancing practical maritime training for cadets.

The simulator was inaugurated by Capt. Aditya Ramaswamy, General Manager of Njord Ship Management India Private Limited, Chennai. The inauguration ceremony was attended by faculty members, cadets, and invited guests, making it a memorable occasion for the institution.

Following the inauguration, a special interactive session was conducted in which Capt. Aditya Ramaswamy addressed the cadets. In his motivational speech, he emphasized the importance of discipline, continuous learning, professionalism, and adaptability in the maritime industry. He encouraged the cadets to remain dedicated to their goals, develop strong technical and leadership skills, and uphold the highest standards of safety and integrity throughout their careers.

He also shared valuable insights from his professional experience, highlighting the challenges and opportunities in the shipping industry. His practical advice and inspiring words motivated the cadets to work hard, stay committed to excellence, and confidently prepare for successful careers as future marine engineers and officers.

The inauguration of the Full Mission Engine Room Simulator reflects RLINS's commitment to providing state-of-the-art training facilities that bridge the gap between theoretical knowledge and practical application. The simulator will enable cadets to gain realistic, hands-on experience in engine room operations, emergency response, troubleshooting, and decision-making, thereby enhancing their competence and confidence before joining ships.



On 9 June, Sanmar Shipping Limited conducted a placement drive at RL Institute of Nautical Sciences (RLINS), providing an excellent career opportunity for our cadets.

We were honoured to welcome Chief Engineer Mr. M. Sathiyamoorthy, President – Technical, and Chief Engineer Mr. Ganesh Karthik Subramaniam, Vice President, Sanmar Shipping Limited, who visited our campus to interact with cadets. The placement drive gave our cadets valuable exposure to industry expectations, recruitment processes, and professional standards. Their interaction with experienced maritime leaders provided practical insights into life at sea, career growth, and the skills required to excel in the shipping industry.

We sincerely thank the Sanmar Shipping Limited team for their time, guidance, and continued support in creating meaningful career opportunities for our cadets. Such industry collaborations play a vital role in bridging the gap between academic learning and professional practice, helping our students build successful careers in the maritime sector.



As part of initiatives such as **World Environment Day**, DG Shipping encourages tree plantation to foster environmental conservation, enhance green cover, and reinforce its commitment to sustainability and climate action within the maritime sector.

As part world environmental day celebration, tree plantation drive was organized by RLINS to promote environmental conservation, enhance green cover, and encourage sustainable lifestyles among staff and the community. During the event, Principal Er.M.Balan, Cadets along with staff members, planted saplings



Congratulations, Kiran Janardhanan Chetty!

We are delighted to congratulate Kiran Janardhanan Chetty, a GME (2025–2026) cadet of RLINS, on being selected by North Shipping Pvt. Ltd.

This achievement marks an important milestone in his maritime career and is a testament to his dedication, hard work, and perseverance. His success reflects the quality of training and professional development provided at RLINS, where cadets are prepared to meet the demands of the global maritime industry.

The entire RLINS family is immensely proud of his accomplishment and wishes him every success as he embarks on this exciting new chapter. May he continue to excel professionally, uphold the highest standards of seamanship, and achieve many more milestones in the years ahead.

Fair winds and following seas!

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KIRAN JANARDHANAN CHETTY
GME (2025-2026)
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Ballast Water Management Systems and Environmental Protection

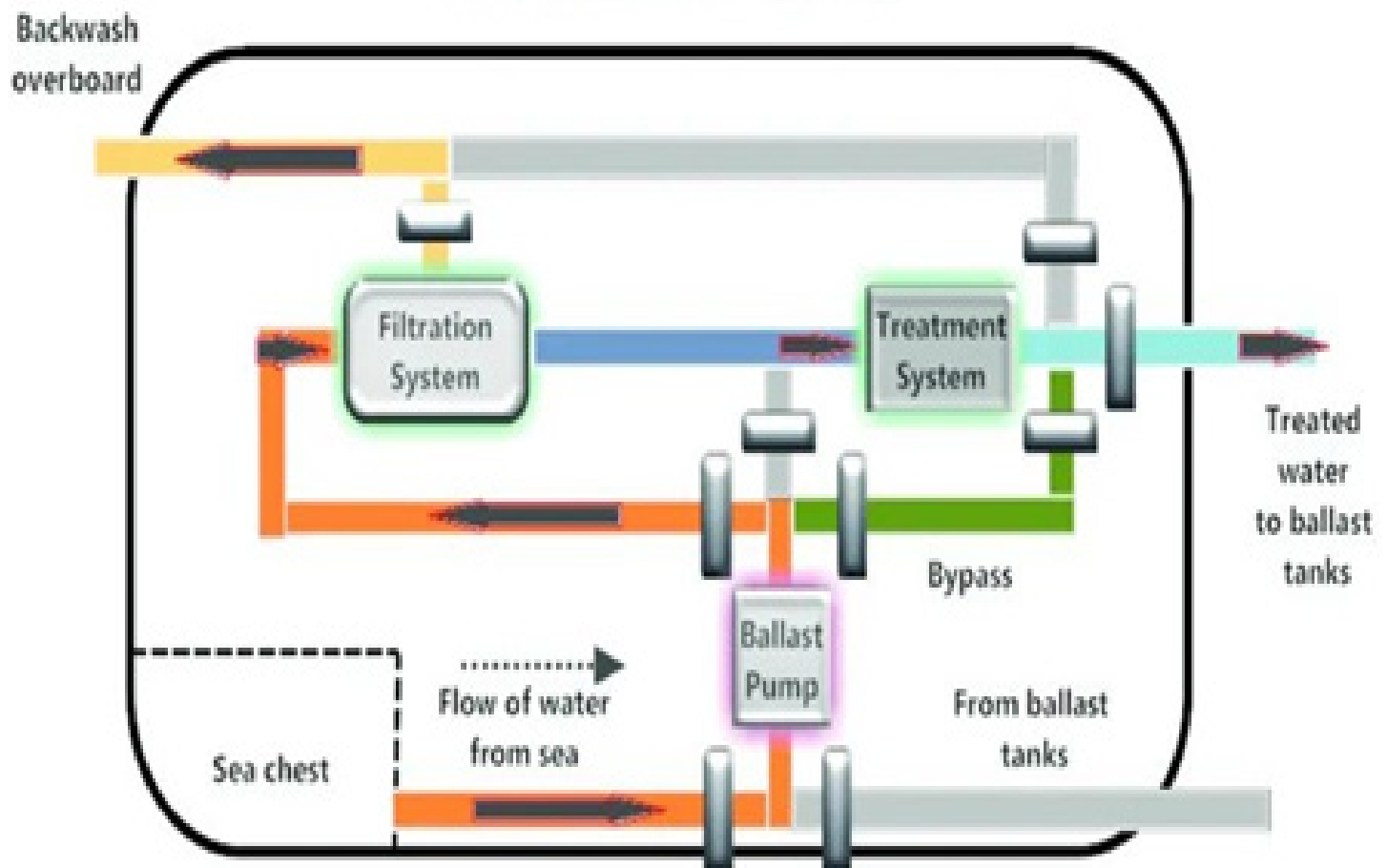
Cadet. Sanjay,
Cadet. Advik,
Cadet. Tejesh,

Introduction:

The Ballast Water Management System (BWMS) is used on board ships to treat ballast water before it is discharged. Ship take in ballast water in one region and discharge it in another, which can unintentionally transfer harmful aquatic organisms, bacteria, and pathogens across ecosystems. This transfer can disrupt local marine biodiversity, damage fisheries, and create serious environmental and economic problems. BWMS removes, neutralizes, or kills harmful organisms using methods such as filtration, ultra violet(UV) treatment, or chemical disinfection. These system ensure that discharged water meets international safety standards. The global regulation of ballast water is governed by the International Maritime Organization under the Ballast Water Management Convention (2004).

Ballast Water Management System (BWMS):

A BALLASTING PROCESS



1. Ballast Water Intake:

Seawater is taken into the ship through the sea chest using ballast pumps, and this water contains various suspended solids, microorganisms, and marine organisms.

2. Filtration Stage:

The filtration stage is the primary treatment process in a Ballast Water Management System (BWMS), carried out during the intake of ballast water to remove larger particles and organisms before further treatment. When seawater enters the system through the ballast pumps, it first passes through an automatic mechanical filter, typically consisting of a fine mesh screen ranging from 20 to 50 microns. This filter traps suspended solids such as sediments, sand, debris, and larger aquatic organisms like zooplankton, preventing them from entering the ballast tanks.

3. Disinfection Stage:

Once the ballast water has been cleared of larger particles, it enters the disinfection unit where biological contaminants such as bacteria, viruses, and phytoplankton are treated using physical or chemical methods. In UV-based systems, the water flows through a UV reactor where high-intensity ultraviolet light penetrates the cells of microorganisms and damages their DNA, preventing them from reproducing and rendering them harmless.

4. Ballast Water Storage:

The holding of treated ballast water in the ship's ballast tanks after it has undergone filtration and disinfection. Once the incoming seawater has been properly treated to remove sediments and inactivate harmful organisms, it is pumped into dedicated ballast tanks.

5. Monitoring & Control System:

The monitoring and control stage is responsible for ensuring that the entire treatment process operates efficiently, safely, and in compliance with regulatory standards. This stage is typically managed by an automated control system, often based on a Programmable Logic Controller (PLC), which continuously supervises all components of the BWMS during both ballast water intake and discharge.

6. Ballast Water Discharge Process:

The ballast water discharge process in a Ballast Water Management System (BWMS) is the final stage where treated ballast water is safely released back into the sea while ensuring it meets environmental regulations. When the ship needs to discharge ballast water, it is pumped from the ballast tanks and passed through the BWMS again, especially in UV-based systems, to provide a second stage of disinfection and ensure that any remaining microorganisms are fully inactivated. In chemical treatment systems, the water may contain residual disinfectants such as chlorine, which must be neutralized before discharge using neutralizing agents like sodium thiosulfate to prevent harm to marine life.

Conclusion:

“Ballast water management is essential for protecting marine life and ensuring sustainable shipping. By using advanced treatment systems and following international regulations, we can reduce environmental damage and preserve ocean ecosystems for future generations.”