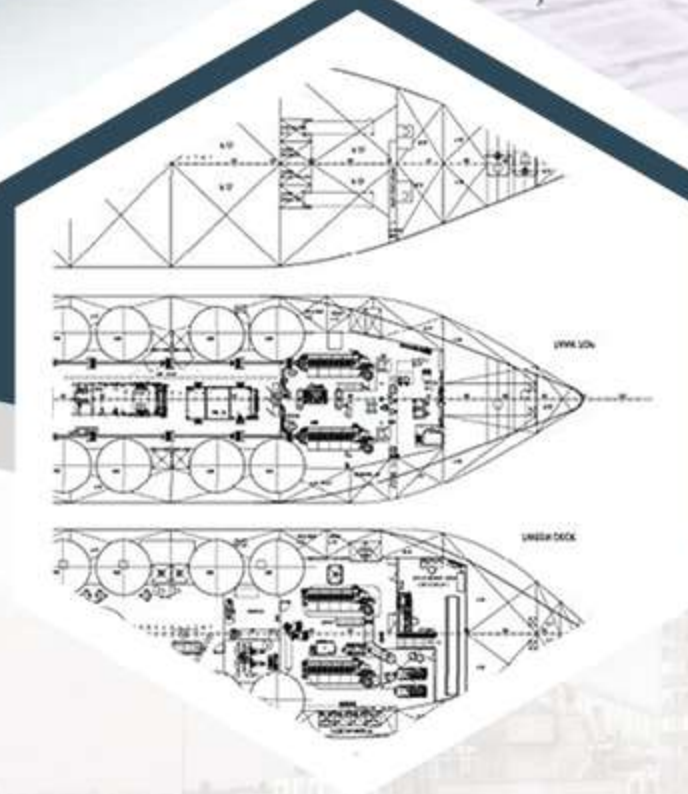
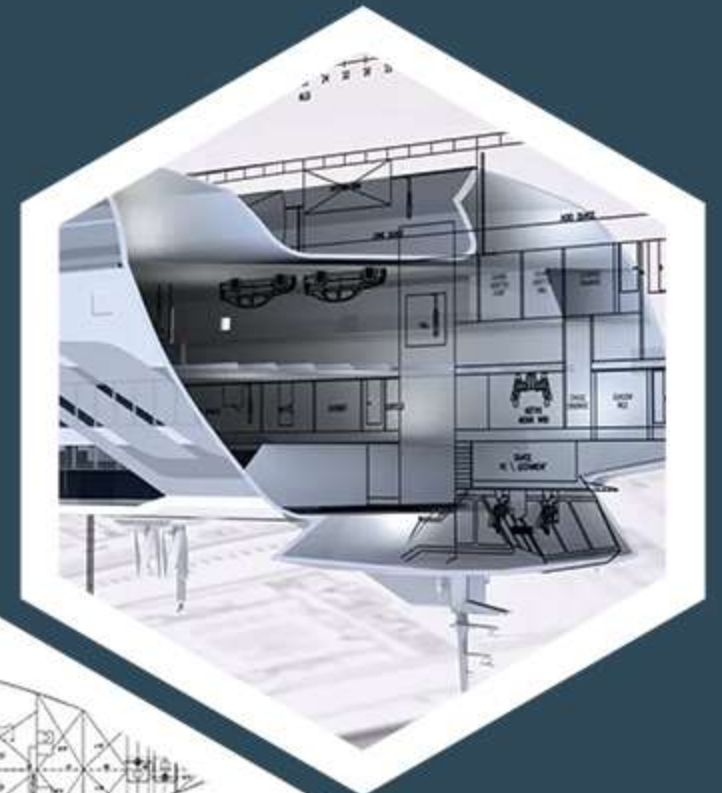
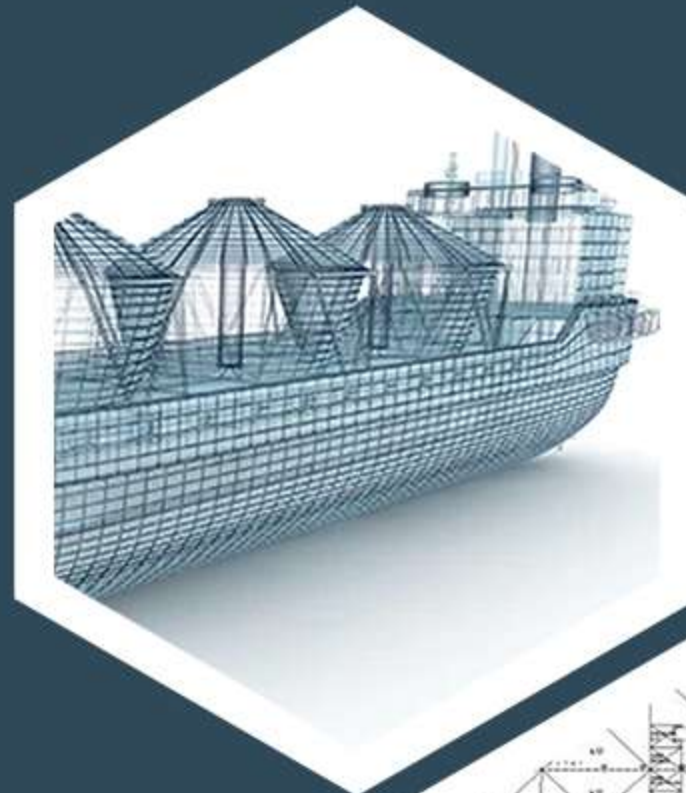


# 3 DAY

## MASTER CLASS ON

# NAVAL ARCHITECTURE



By  
**Centre of Excellence in Maritime & Shipbuilding (CEMS)**  
in association with  
**IRCLASS Academy**

**Mumbai**

26th - 28th June 2024 | CEMS, Powai  
Mumbai - 400072



## About CEMS

The Centre of Excellence in Maritime and Shipbuilding (CEMS) is a Not for Profit company established in 2017 by the Ministry of Ports, Shipping and Waterways under the Sagarmala Project. It provides knowledge and skill development in Maritime, Infrastructure, and Manufacturing sectors.

CEMS has world-class infrastructure in Visakhapatnam and Mumbai, with a focus on Industry 4.0. Its mission is to promote the advancement and implementation of industry 4.0 skills, transforming existing industries into smart factories through research and education partnerships.



## About IRCLASS Academy

IRCLASS Academy is a dedicated centre for facilitating professional development & skill enhancement in Maritime, Infrastructure & Manufacturing sectors. IRCLASS Academy offers Classroom based, virtual and e-learning training courses.

## ABOUT THE COURSE

The course will provide an insight into various intricacies involved in the shipbuilding process for the practicing professionals. The course will help the shipbuilders, ship designers, hull fabricators and owners' representatives involved in different capacities during the shipbuilding process. The course will systematically address the shipbuilding requirements encompassing the international quality standards, the process of classification/ statutory approvals of plans, roles of various stakeholders, specific requirements, and other issues such as load line convention and stability.





# COURSE OBJECTIVES

To enhance the knowledge of the participants on various shipbuilding processes, requirements related to classification societies and statutory compliances.

## PARTICIPANTS

The Program is best suited for the following participants

Ship Builders

Hull Fabricators

Ship Designers

Owners'  
Representatives

Consultants

Design reviewers and  
WPS & CGRPS teams from  
the Navy and Coast Guard.

## KEY TOPICS

- ✓ Shipbuilding Process Flow, Terminology
- ✓ Referencing of shipboard locations and drawings
- ✓ Shipbuilding Construction Standard Z23
- ✓ Eplan Electronic Plan appraisal process
- ✓ Plan Approval - Classification and Statutory requirements
- ✓ Ship Structure - New Construction Role of Surveyors
- ✓ Structural Plan review - Philosophy
- ✓ Structural Fire Protection
- ✓ Ventilation requirements
- ✓ Welding - Basics of Welding, WPS, PQR and Welder Qualifications
- ✓ Introduction to NDT
- ✓ Load Line Convention Application
- ✓ Stability and Inclining Experiment
- ✓ Tonnage Computation
- ✓ Outfitting
- ✓ Materials for Shipbuilding - Aluminium, FRP, HDPE requirements, challenges
- ✓ Approval Comments and Its Significance
- ✓ Use of IR Hull - Basic understanding





# ABOUT THE TRAINERS



## Amit Bhatnagar

Senior Principal Surveyor and Head IRCLASS Academy. More than 30 years of experience in Maritime field.



## S Renaganthan

Head Plan Approval Centre. More than 25 years of experience in classification and statutory Plan Approval & shipbuilding experience of more than 10 years.



## Jeevan Ram Sukumarapillai

Principal Surveyor in Plan Approval Centre of Indian Register of Shipping. Is a Naval Architect with more than 27 years of experience.

## FEES DETAILS

**25000 + 18% GST**

Course fees to be paid in the following account:

Account Name:	CENTRE OF EXCELLENCE IN MARITIME AND SHIPBUILDING (CEMS)
Bank Name:	ICICI Bank Ltd
Account Number:	120501001143
IFSC Code:	ICIC0001205
Branch Address:	Sher-E-Punjab, Andheri (East), Mumbai - 400093

## Contact

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