



Ref.No.:AMETU/BoS/NAOE/2023-24

Date: 19-07-2023

## **BOARD OF STUDIES – MEETING MINUTES**

Department of Naval Architecture & Offshore Engineering Board of Studies meeting was held on 19.07.2023 in T-9 hall Lab from 10.30 am - 12.30pm. Prof. S.K.Bhattacharya, Chairman BOS (NA&OE), facilitates the meeting and welcomed the members.

### **Agendas:**

1. Presentation of Students Feedback Analysis Report  
Ref.No:AMERU/FBA/Students/ NAOE/1/2023-2024  
Ref.No:AMERU/FBA/Students/ NAOE/2/2023-2024
2. Presentation of Parents Feedback Analysis Report  
Ref.No:AMERU/FBA/Parents/ NAOE/1/2023-2024  
Ref.No:AMERU/FBA/ Parents / NAOE/2/2023-2024
3. Presentation of Alumini Feedback Analysis Report  
Ref.No:AMERU/FBA/ Alumini / NAOE/1/2023-2024  
Ref.No:AMERU/FBA/ Alumini / NAOE/2/2023-2024
4. Presentation of Alumini Feedback Analysis Report  
Ref.No:AMERU/FBA/ Employers / NAOE/1/2023-2024  
Ref.No:AMERU/FBA/ Employers / NAOE/2/2023-2024
5. Presentation of Faculty Feedback Analysis Report  
Ref.No:AMERU/FBA/ Faculty / NAOE/1/2023-2024  
Ref.No:AMERU/FBA/ Faculty / NAOE/2/2023-2024

### **BOS Members:**

1. Prof. S.K.Bhattacharya, HoD/Chairman, NA&OE
2. Dr. Rajiv Sharma, Professor, Department of Ocean Engineering, IIT, Chennai.
3. Commander. Kamal Kanagat, General Manager, Larsen and Toubro, Ship Building, Chennai.
4. Dr. S. Bharathi Raja, Dean, Faculty of Engineering and Technology
5. Dr. J. Rengamani, Dean Academics
6. Mr. M. Sathish Kumar, Chairman -BoS/Marine Engineering-Member
7. Dr. S. Priya, Chairman - BoS/EEE-Member
8. Dr. N. Duraimutharasan, Dean, Faculty of Advanced Computing Sciences
9. Dr. R. RameshKumar, Chairman -BoS/Computer Science and Engineering-Member



10. Dr. Anita R Warriar, Dean (i/c), Faculty of Science and Humanities
11. Dr. P. Balaganesan, HoD, Department of Mathematics
12. Dr. N. Sivakumar, HoD, Department of Chemistry
13. Dr. S. Shameem, Chairman -BoS/AMET Business School-Member
14. Dr. M. Subha, HoD, Department of English
15. Mr. B. Thirumaran, Director, Placements
16. Prof. MSP. Raju, Director, NA&OE
17. Dr. P. Sivabalan, Assistant Professor, NA&OE
18. Dr. J. Suneela, Assistant Professor, NA&OE
19. Mr. Jayasurya, Assistant Professor, NA&OE
20. Dr. V. Arularasi, Assistant Professor, NA&OE
21. Dr. S. Saravana Priya, Assistant Professor, NA&OE
22. Mr. Prem Anandh, Assistant Professor, NA&OE
23. Mr. Yogi P, Naval Architect, Synergy Maritime, Alumni
24. Mr. Vinobel, Naval Architect, Azolla, Synergy Maritime, Alumni
25. Mr. Anoop George, B.E. Final year student, NA&OE
26. Mr. Atul Krishna KA, B.E. Third year student, NA&OE
27. Mr. Baskaran, Student Parent.

The following points were discussed by the BOS members.

1. Prof. Bhattacharya welcomed all the BOS members. The UG and PG curriculum were presented by him and suggestions were given by Expert member Dr. Rajiv Sharma, Commander. Kamal Kanagat, regarding the structure arrangement of the subject, credit share, contact hours etc.

The following points were discussed elaborately.

2. Dr. Bharathi Raja has suggested to increase one more subject in professional elective courses in Marine Engineering stream. He also suggested that OEC classes can be converted to MOOC.
3. Dr. Bharathi Raja has suggested that "Total Quality Management" can be shifted to V or VI semester from III semester.
4. Prof. Rajiv Sharma advice to have skill based course in first year. Also he suggested to have one management course before the completion of the third year.
5. Prof. Rajiv Sharma suggested that the project III can be shifted to VIII semester.
6. Dr. J. Rengamani informed the members that the skill development courses are included in the curriculum which will be handled by industry experts.



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7. In addition to the existing Value Added Courses the following courses are included in the curriculum with the syllabus.
  - i) Application of Computer-Aided Design (CAD) in ship Design
  - ii) Fundamentals of Warship Design
  - iii) Vibration of Marine Structures
8. The Chairman informed that the syllabus for the new and revised courses are framed as per the guidelines and format prescribed by the University.
9. Commander. Kamal Kanagat suggested that VIII semester courses can be attended by the students through online mode. He also suggested some points for the subjects given below.

**(i) Thermodynamics & Marine Machinery**

In addition to Diesel Engines you may like to add some concepts of future fuels like LNG, Hydrogen, Ammonia, Methanol, etc. Also dual fuel engines can be given a basic intro.

**(ii) Warship Technology**

As I understand this course is designed to provide an in-depth coverage of ship Design, over and above the ship design covered under Professional Core Course.

Introduction to a Few more concepts may be added, such as:

- Shock, EMI/EMC, Ships Signatures such as underwater noise, Radar, Infrared, Magnetic and de-gaussing.
- Habitability and HVAC aspects
- Developing General Arrangement of a ship
- Control Systems like – IPMS, APMS, AMS etc.
- Fixed Fire Fighting Systems like CO<sub>2</sub>, FM 200 etc. (Can also be a part of ship systems)
- These can also be included as lectures from experts, and L&T can pitch in there.

**(iii) Under Ship Construction** it may be better to bring in some basic fundamentals, if not already covered somewhere, like:

- Various terms used in ship construction



- Concept of Pre-outfitting, Modular Construction and Mega block construction
- Construction in Shop Floor and Dry Dock / Ship Lifts
- Construction Planning/ Strategy / Sequence

10. Paper publication and its importance were discussed by all the members.

11. Atul Krishna, III year student said that subject load is heavy in the IV semester.

12. Dr. Thirumaran suggested to conduct Time management course for placement in IV year.

13. The members had a brainstorming discussion and interaction among them. After the fruitful discussion, relevant comments were incorporated appropriately into the Curriculum and syllabus.

14. Prof. S.K. Bhattacharya, HOD and Prof. MSP. Raju, Director thanked all the members for their kind cooperation and the meeting came to an end.

BOS Chairman

Prof. S.K. BHATTACHARYA  
Head of The Department  
Dept. of Naval Architecture & Ocean Engineering  
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### **Resolutions brought forward by Chairman – NA&OE Board**

The following resolutions are made after the detailed discussion in BoS meeting conducted on 19.07.2023. It is decided,

- The final year UG Project (Project III) should be completed in VIII semester.
- Introducing Time management course for IV year.
- Design thinking and Total Quality Management are moved from the third semester to the fifth semester.
- In the subject “Thermodynamics & Marine Machinery” concepts of future fuels like LNG, Hydrogen, Ammonia, and Methanol are included in the introduction.
- In the subjects “Warship Technology” concepts like Shock, EMI/EMC, Ship Signatures such as underwater noise, Radar, Infrared, Magnetic and de-gaussing are included.
- In the subjects “Under Ship Construction” Concept of Pre-outfitting, Modular Construction, Mega block construction, various terms used in ship construction & Construction Planning/ Strategy / Sequence are included.

A handwritten signature in blue ink, appearing to read 'S.K. Bhattacharya'.

**Chairman- BoS**

Prof. S.K. BHATTACHARYA  
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