

Department of Naval Architecture and Offshore engineering

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

<u>2015-2016</u>

Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of introduction
Fundamentals of Naval Architecture	UANA302	B.E-NA& OE	Problem Solving Methodology	2015-2016
Theory of Ships	UANA303	B.E-NA& OE	Problem Solving Methodology	2015-2016
Ship Design Calculation Drawing & Drafting – I SDCADD- I	UANA3PA	B.E-NA& OE	Experiential Learning	2015-2016
Resistance of Ships	UANA401	B.E-NA& OE	Problem Solving Methodology	2015-2016
Theory of Structures	UANA402	B.E-NA& OE	Problem Solving Methodology	2015-2016
Marine Materials and Metal Joining Techniques	UANA403	B.E-NA& OE	Participative Learning	2015-2016
Strength of Ships	UANA404	B.E-NA& OE	Problem Solving Methodology	2015-2016
Ship Design Calculation Drawing & Drafting – II SDCADD-II	UANA4PA	B.E-NA& OE	Experiential Learning	2015-2016
Wave Hydrodynamics	UCNA501	B.E-NA& OE	Problem Solving Methodology	2015-2016
Propulsion of Ships	UANA501	B.E-NA& OE	Problem Solving Methodology	2015-2016
Marine Design	UANA502	B.E-NA& OE	Problem Solving Methodology	2015-2016
Corrosion & Protection Engineering	UANA506	B.E-NA& OE	Participative Learning	2015-2016
Ship Design Calculation Drawing & Drafting –	UANA5PA	B.E-NA& OE	Experiential Learning	2015-2016

III SDCADD-III				
Software Lab – AVEVA MARINE-TRIBON - II	UANA5PB	B.E-NA& OE	Experiential Learning	2015-2016
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Computational Marine Hydrodynamics	UANA602	B.E-NA& OE	Problem Solving Methodology	2015-2016
Structural Design of Ships	UANA603	B.E-NA& OE	Problem Solving Methodology	2015-2016
Quality Health Safety and Environmental Management	UANA610	B.E-NA& OE	Experiential Learning	2015-2016
Sea keeping & Controllability of Ships	UANA605	B.E-NA& OE	Problem Solving Methodology	2015-2016
Ship Design Calculation Drawing & Drafting – IV SDCADD-IV	UANA6PA	B.E-NA& OE	Experiential Learning	2015-2016
Software Lab – DNV SESAM	UANA6PB	B.E-NA& OE	Experiential Learning	2015-2016
Dynamics of Offshore Structures	UANA702	B.E-NA& OE	Problem Solving Methodology	2015-2016
Finite Element Analysis of Offshore Structures	UANA704	B.E-NA& OE	Problem Solving Methodology	2015-2016
Marine Robotics	UANA707	B.E-NA& OE	Participative Learning	2015-2016
Design of Floating Offshore Structures	UANA708	B.E-NA& OE	Problem Solving Methodology	2015-2016
Ship Design Calculation Drawing & Drafting – V SDCADD-V	UANA7PA	B.E-NA& OE	Experiential Learning	2015-2016
Software Lab- Primavera/ Nomitech-& PDMS	UANA7PB	B.E-NA& OE	Experiential Learning	2015-2016
Shipyard Training	UANA7PC	B.E-NA& OE	Participative Learning	2015-2016
Production and Project Management	UANA801	B.E-NA& OE	Experiential Learning	2015-2016
Ocean Engineering& Marine Hydrodynamics- Model Testing	UANA8PA	B.E-NA& OE	Experiential Learning	2015-2016

<u>2016-2017</u>

Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of introduction
Fundamentals of Naval Architecture	UCNA301	B.E-NA& OE	Problem Solving Methodology	2016-2017
Theory of Ships	UBNA303	B.E-NA& OE	Problem Solving Methodology	
Ship Design Calculation & Drawing – I (SDCAD - I)	UCNA3PA	B.E-NA& OE	Experiential Learning	2016-2017
Resistance of Ships	UBNA402	B.E-NA& OE	Problem Solving Methodology	2016-2017
Theory of Structures	UBNA403	B.E-NA& OE	Problem Solving Methodology	2016-2017
Marine Materials and Metal Joining Techniques	UBNA404	B.E-NA& OE	Participative Learning	2016-2017
Strength of Ships	UBNA405	B.E-NA& OE	Problem Solving Methodology	2016-2017
Ship Design Calculation Drawing & Drafting – II SDCADD-II	UCNA4PA	B.E-NA& OE	Experiential Learning	2016-2017
Software Laboratory – AVEVA MARINE – TRIBON - I	UCNA4PB	B.E-NA& OE	Experiential Learning	2016-2017
Resistance and Propulsion of Ships	UCNA501	B.E-NA& OE	Problem Solving Methodology	2016-2017
Strength Of Ships	UCNA502	B.E-NA& OE	Problem Solving Methodology	2016-2017
Quality Health Safety And Environmental Management	UCNA509	B.E-NA& OE	Experiential Learning	2016-2017
Ship Design Calculation Drawing & Drafting – III SDCADD-III	UCNA5PA	B.E-NA& OE	Experiential Learning	2016-2017
Software Laboratory - II	UCNA5PB	B.E-NA& OE	Experiential Learning	2016-2017
Sea keeping And Maneuvering Of Ships	UCNA601	B.E-NA& OE	Problem Solving Methodology	2016-2017
Structural Design of Ships	UCNA602	B.E-NA& OE	Problem Solving Methodology	2016-2017
Ship Design - I	UCNA603	B.E-NA& OE	Problem Solving Methodology	2016-2017
Ship Systems Design	UCNA604	B.E-NA& OE	Experiential Learning	2016-2017
Introduction To Finite Element Analysis	UCNA606	B.E-NA& OE	Problem Solving Methodology	2016-2017

Ship Design Calculation Drawing & Drafting – IVSDCADD-IV	UCNA6PA	B.E-NA& OE	Experiential Learning	2016-2017
Software Laboratory - III	UCNA6PB	B.E-NA& OE	Experiential Learning	2016-2017
Industrial/Shipyard Training	UBIVCPZ	B.E-NA& OE	Participative Learning	2016-2017
Ship Design - II	UCNA702	B.E-NA& OE	Problem Solving Methodology	2016-2017
Corrosion And Protection Engineering	UCNA703	B.E-NA& OE	Participative Learning	2016-2017
Experimental And Ocean Instrumentation	UCNA704	B.E-NA& OE	Participative Learning	2016-2017
Small And High Speed Craft Design	UCNA705	B.E-NA& OE	Problem Solving Methodology	2016-2017
Introduction To Computational Fluid Dynamics	UCNA706	B.E-NA& OE	Problem Solving Methodology	2016-2017
Ship Design Calculation Drawing & Drafting – VSDCADD-V	UCNA7PA	B.E-NA& OE	Experiential Learning	2016-2017
Project Design & Its Methodology (Practical)	UCNA7PB	B.E-NA& OE	Participative Learning	2016-2017
Experimental Ship Hydrodynamics	UCNA7PC	B.E-NA& OE	Experiential Learning	2016-2017
Software Laboratory - IV	UCNA7PD	B.E-NA& OE	Experiential Learning	2016-2017
Shipyard Practice And Project Management	UCNA801	B.E-NA& OE	Experiential Learning	2016-2017
Major Project	UBNA8PC	B.E-NA& OE	Participative Learning	2016-2017

<u>2017-2018</u>

Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of introduction
Introduction to Naval Architecture	UDNA301	B.E-NA& OE	Problem Solving Methodology	2017-2018
Marine Materials and Welding Technology	UDNA302	B.E-NA& OE	Participative Learning	2017-2018
Marine Hydrodynamics	UDNA303	B.E-NA& OE	Problem Solving Methodology	2017-2018
Industrial Visit - I	UDVCC03	B.E-NA& OE	Participative Learning	2017-2018
Ship Drawing - Lines Plan	UDNA3PC	B.E-NA& OE	Experiential Learning	2017-2018
Theory of Ships	UDNA404	B.E-NA& OE	Problem Solving Methodology	2017-2018
Basic Principles of Marine Vehicle Design	UDNAO01	B.E-NA& OE	Problem Solving Methodology	2017-2018
Industrial Visit - II	UDVCC06	B.E-NA& OE	Participative Learning	2017-2018
Hydrostatics & Stability Laboratory	UDNA4PA	B.E-NA& OE	Experiential Learning	2017-2018
Surface Modelling and Analysis - Software Laboratory	UDNA4PB	B.E-NA& OE	Experiential Learning	2017-2018
Strength of Ships	UDNA501	B.E-NA& OE	Problem Solving Methodology	2017-2018
Ship Resistance and Propulsion	UDNA502	B.E-NA& OE	Problem Solving Methodology	2017-2018
Wave Mechanics	UDNAP02	B.E-NA& OE	Problem Solving Methodology	2017-2018
Lifting Surfaces for Marine Applications	UDNAP03	B.E-NA& OE	Problem Solving Methodology	2017-2018
Quality, Health, Safety and Environmental Management	UDNAO04	B.E-NA& OE	Participative Learning	2017-2018
Industrial Visit - III	UDVCC09	B.E-NA& OE	Participative Learning	2017-2018
Ship Strength Laboratory	UDNA5PA	B.E-NA& OE	Experiential Learning	2017-2018
Structural Modelling - Software Laboratory	UDNA5PB	B.E-NA& OE	Experiential Learning	2017-2018
Internship – I	UDNA5PC	B.E-NA& OE	Participative Learning	

				2017-2018
Ship Motion and Control	UDNA602	B.E-NA& OE	Problem Solving Methodology	2017-2018
Ship Design	UDNA603	B.E-NA& OE	Problem Solving Methodology	2017-2018
CAD/CAM in Ship Building	UDNAP04	B.E-NA& OE	Experiential Learning	2017-2018
Fishing Vessel Technology	UDNAP06	B.E-NA& OE	Problem Solving Methodology	2017-2018
Fluid Structure Interaction	UDNAP09	B.E-NA& OE	Problem Solving Methodology	2017-2018
Ship Systems Engineering	UDNAP10	B.E-NA& OE	Experiential Learning	2017-2018
Industrial Visit - IV	UDVCC13	B.E-NA& OE	Participative Learning	2017-2018
Marine Hydrodynamics Laboratory	UDNA6PA	B.E-NA& OE	Experiential Learning	2017-2018
Offshore Structure Design - Software Laboratory	UDNA6PB	B.E-NA& OE	Experiential Learning	2017-2018
Advanced Ship Design	UDNAP11	B.E-NA& OE	Problem Solving Methodology	2017-2018
Computer Aided Structural Design (FEA)	UDNAP12	B.E-NA& OE	Problem Solving Methodology	2017-2018
High Performance Marine Vehicles	UDNAP16	B.E-NA& OE	Problem Solving Methodology	2017-2018
Marine Corrosion and Control	UDNAP17	B.E-NA& OE	Participative Learning	2017-2018
Theory and Practice in Marine CFD	UDNAP18	B.E-NA& OE	Experiential Learning	2017-2018
Industrial Visit - V	UDVCC16	B.E-NA& OE	Participative Learning	2017-2018
ShipSystemDrawing&LaunchingCalculationsLaboratory	UDNA7PA	B.E-NA& OE	Experiential Learning	2017-2018
Numerical Ship Hydrodynamics – Software	UDNA7PB	B.E-NA& OE	Experiential Learning	2017-2018
Internship - II	UDNA7PD	B.E-NA& OE	Participative Learning	2017-2018
Major Project / Industry Internship Project	UDNA8PA	B.E-NA& OE	Participative Learning	2017-2018

<u>2018-2019</u>

Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of introduction
Introduction to Naval Architecture	UDNA301	B.E-NA& OE	Problem Solving Methodology	2018-2019
Marine Materials and Welding Technology	UDNA302	B.E-NA& OE	Participative Learning	2018-2019
Marine Hydrodynamics	UDNA303	B.E-NA& OE	Problem Solving Methodology	2018-2019
Industrial Visit - I	UDVCC03	B.E-NA& OE	Participative Learning	2018-2019
Ship Drawing - Lines Plan	UDNA3PC	B.E-NA& OE	Experiential Learning	2018-2019
Theory of Ships	UDNA404	B.E-NA& OE	Problem Solving Methodology	2018-2019
Basic Principles of Marine Vehicle Design	UDNAO01	B.E-NA& OE	Problem Solving Methodology	2018-2019
Industrial Visit - II	UDVCC06	B.E-NA& OE	Participative Learning	
Hydrostatics & Stability Laboratory	UDNA4PA	B.E-NA& OE	Experiential Learning	2018-2019
Surface Modelling and Analysis - Software Lab	UDNA4PB	B.E-NA& OE	Experiential Learning	2018-2019
Strength of Ships	UDNA501	B.E-NA& OE	Problem Solving Methodology	2018-2019
Ship Resistance and Propulsion	UDNA502	B.E-NA& OE	Problem Solving Methodology	2018-2019
Wave Mechanics	UDNAP02	B.E-NA& OE	Problem Solving Methodology	2018-2019
Lifting Surfaces for Marine Applications	UDNAP03	B.E-NA& OE	Problem Solving Methodology	2018-2019
Quality, Health, Safety and Environmental Management	UDNAO04	B.E-NA& OE	Participative Learning	2018-2019
Industrial Visit - III	UDVCC09	B.E-NA& OE	Participative Learning	2018-2019
Ship Strength Laboratory	UDNA5PA	B.E-NA& OE	Experiential Learning	2018-2019
Structural Modelling - Software Laboratory	UDNA5PB	B.E-NA& OE	Experiential Learning	2018-2019

Internship – I	UDNA5PC	B.E-NA& OE	Participative Learning	2018-2019
Ship Motion and Control	UDNA602	B.E-NA& OE	Problem Solving Methodology	2018-2019
Ship Design	UDNA603	B.E-NA& OE	Problem Solving Methodology	2018-2019
CAD/CAM in Ship Building	UDNAP04	B.E-NA& OE	Experiential Learning	2018-2019
Fishing Vessel Technology	UDNAP06	B.E-NA& OE	Problem Solving Methodology	2018-2019
Fluid Structure Interaction	UDNAP09	B.E-NA& OE	Problem Solving Methodology	2018-2019
Ship Systems Engineering	UDNAP10	B.E-NA& OE	Experiential Learning	2018-2019
Industrial Visit - IV	UDVCC13	B.E-NA& OE	Participative Learning	2018-2019
Marine Hydrodynamics Laboratory	UDNA6PA	B.E-NA& OE	Experiential Learning	2018-2019
Offshore Structure Design - Software Laboratory	UDNA6PB	B.E-NA& OE	Experiential Learning	2018-2019
Advanced Ship Design	UDNAP11	B.E-NA& OE	Problem Solving Methodology	2018-2019
Computer Aided Structural Design (FEA)	UDNAP12	B.E-NA& OE	Problem Solving Methodology	2018-2019
High Performance Marine Vehicles	UDNAP16	B.E-NA& OE	Problem Solving Methodology	2018-2019
Marine Corrosion and Control	UDNAP17	B.E-NA& OE	Participative Learning	2018-2019
Theory and Practice in Marine CFD	UDNAP18	B.E-NA& OE	Experiential Learning	2018-2019
Industrial Visit - V	UDVCC16	B.E-NA& OE	Participative Learning	2018-2019
ShipSystemDrawing&LaunchingCalculationsLaboratory	UDNA7PA	B.E-NA& OE	Experiential Learning	2018-2019
Numerical Ship Hydrodynamics – Software	UDNA7PB	B.E-NA& OE	Experiential Learning	2018-2019
Internship - II	UDNA7PD	B.E-NA& OE	Participative Learning	2018-2019
Major Project / Industry Internship Project	UDNA8PA	B.E-NA& OE	Participative Learning	2018-2019



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2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

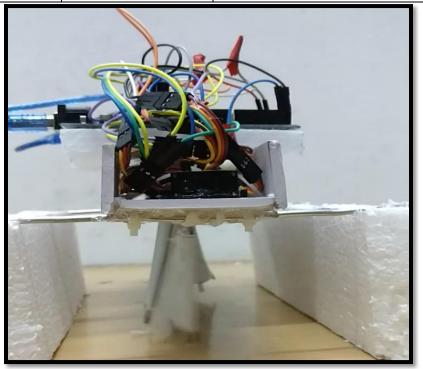
<u>2019-2020</u>

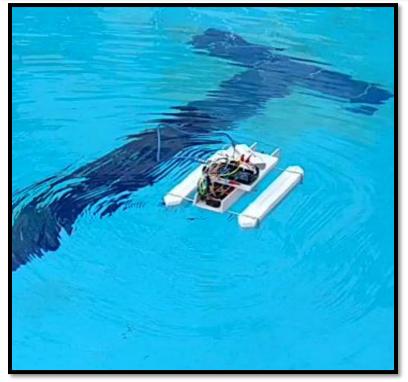
Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of introduction
Introduction to Naval Architecture	UDNA301	B.E-NA& OE	Problem Solving Methodology	2019-2020
Marine Materials and Welding Technology	UDNA302	B.E-NA& OE	Participative Learning	2019-2020
Marine Hydrodynamics	UDNA303	B.E-NA& OE	Problem Solving Methodology	2019-2020
Industrial Visit - I	UDVCC03	B.E-NA& OE	Participative Learning	2019-2020
Ship Drawing - Lines Plan	UDNA3PC	B.E-NA& OE	Experiential Learning	2019-2020
Theory of Ships Basic Principles of Marine Vehicle Design	UDNA404 UDNAO01	B.E-NA& OE B.E-NA& OE	Problem Solving Methodology Problem Solving Methodology	2019-2020 2019-2020
Industrial Visit - II	UDVCC06	B.E-NA& OE	Participative Learning	2019-2020
Hydrostatics & Stability Laboratory	UDNA4PA	B.E-NA& OE	Experiential Learning	2019-2020
Surface Modelling and Analysis - Software Lab.	UDNA4PB	B.E-NA& OE	Experiential Learning	2019-2020
Strength of Ships	UDNA501	B.E-NA& OE	Problem Solving Methodology	2019-2020

Ship Resistance and Propulsion	UDNA502	B.E-NA& OE	Problem Solving Methodology	2019-2020
Wave Mechanics	UDNAP02	B.E-NA& OE	Problem Solving Methodology	2019-2020
Lifting Surfaces for Marine Applications	UDNAP03	B.E-NA& OE	Problem Solving Methodology	2019-2020
Quality, Health, Safety and Environmental Management	UDNAO04	B.E-NA& OE	Participative Learning	2019-2020
Industrial Visit - III	UDVCC09	B.E-NA& OE	Participative Learning	2019-2020
Ship Strength Laboratory	UDNA5PA	B.E-NA& OE	Experiential Learning	2019-2020
Structural Modelling - Software Laboratory	UDNA5PB	B.E-NA& OE	Experiential Learning	2019-2020
Internship – I	UDNA5PC	B.E-NA& OE	Participative Learning	2019-2020
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Ship Motion and Control	UDNA602	B.E-NA& OE	Problem Solving Methodology	2019-2020
Ship Design	UDNA603	B.E-NA& OE	Problem Solving Methodology	2019-2020
CAD/CAM in Ship Building	UDNAP04	B.E-NA& OE	Experiential Learning	2019-2020
Fishing Vessel Technology	UDNAP06	B.E-NA& OE	Problem Solving Methodology	2019-2020
Fluid Structure Interaction	UDNAP09	B.E-NA& OE	Problem Solving Methodology	2019-2020
Ship Systems Engineering	UDNAP10	B.E-NA& OE	Experiential Learning	2019-2020
Industrial Visit - IV	UDVCC13	B.E-NA& OE	Participative Learning	2019-2020
Marine Hydrodynamics Laboratory	UDNA6PA	B.E-NA& OE	Experiential Learning	2019-2020
Offshore Structure Design - Software Laboratory	UDNA6PB	B.E-NA& OE	Experiential Learning	2019-2020
Advanced Ship Design	UDNAP11	B.E-NA& OE	Problem Solving Methodology	2019-2020
Computer Aided Structural Design (FEA)	UDNAP12	B.E-NA& OE	Problem Solving Methodology	2019-2020
High Performance Marine Vehicles	UDNAP16	B.E-NA& OE	Problem Solving Methodology	2019-2020
Marine Corrosion and Control	UDNAP17	B.E-NA& OE	Participative Learning	2019-2020
Theory and Practice in Marine CFD	UDNAP18	B.E-NA& OE	Experiential Learning	2019-2020
Industrial Visit - V	UDVCC16	B.E-NA& OE	Participative Learning	2019-2020
Ship System Drawing &	UDNA7PA	B.E-NA& OE	Experiential Learning	2019-2020

Launching Calculations Lab.				
Numerical Ship Hydrodynamics – Software	UDNA7PB	B.E-NA& OE	Experiential Learning	2019-2020
Internship - II	UDNA7PD	B.E-NA& OE	Participative Learning	2019-2020
Major Project / Industry Internship Project	UDNA8PA	B.E-NA& OE	Participative Learning	2019-2020

Course	Faculty	Description
Ocean Engineering & Marine Hydrodynamics Model Testing	Mr. Ranjeet Kumar	Students have developed a model and conducted different experiments in a pool to know the Hydrodynamics performance of the model.





Course	Faculty	Description
Major Project	Cdr Sathish Raja Varma	Students are guided by the faculty to prepare the project in the standard format and conditions





Course	Faculty	Description
Software Lab – DNV SESAM	Mr. Vijith P P	Students are able to create model of the given Jacket platform and Analyze the structure under various conditions and loads using Software



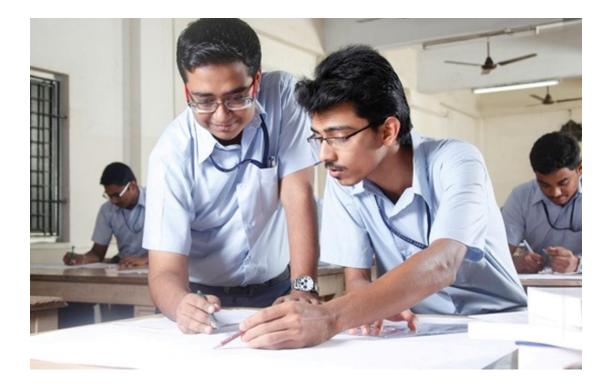


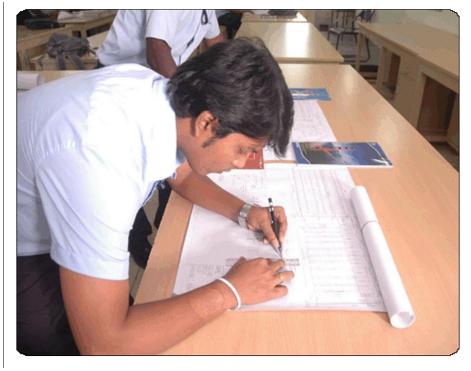
Course	Faculty	Description
Marine Robotics	Mr. Himanshu Uppal	Students participated in the workshop to gain the knowledge and real-time experience of Robitics in Marine field





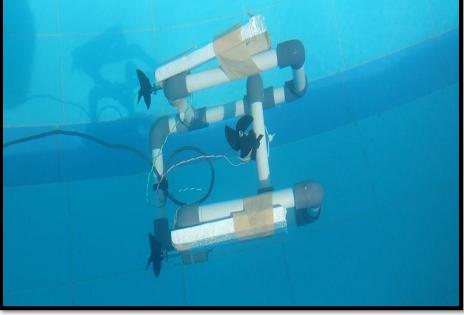
Course	Faculty	Description
SDCADD-III	Mr. Akshar Patel	Students are able to solve the problems related to Design and input in the form of Manual drawings to get hands on practice.





Course	Faculty	Description
Marine Design	Cdr. Prashant Kumar	Students have developed various Floating models based on the concept of design and performed various model testing at different speeds to check the Stability, Strength, Propulsion & Maneuvering characteristics.





Course	Faculty	Description
Resistance & Propulsion of ships	Mr. Gopi Krishna	Students attended the seminar on Undewater noise levels due to ship which gave the understanding in the real state condition by Industry Expert.







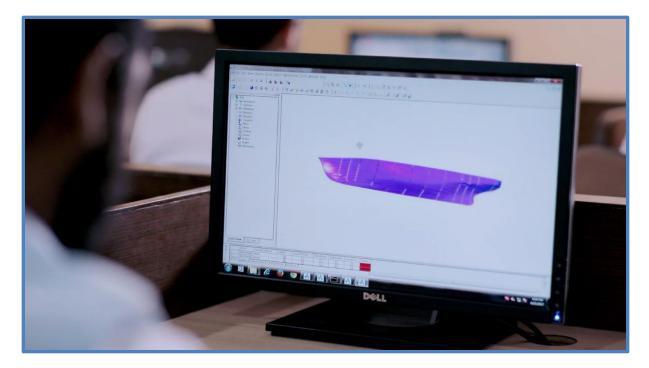


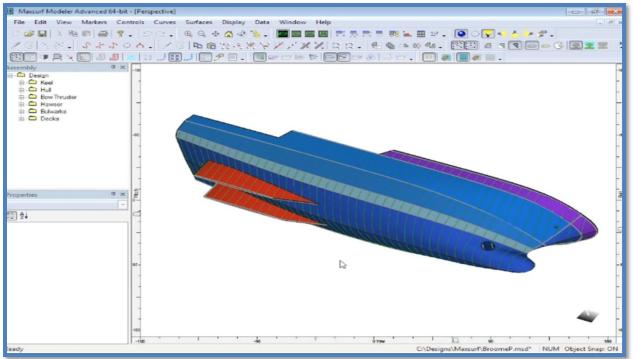
Course	Faculty	Description
Software Laboratory - II	Mr. Saravana Kumar	Students are experiencing the software to develop a Model for various conditions based on Owners requirement.



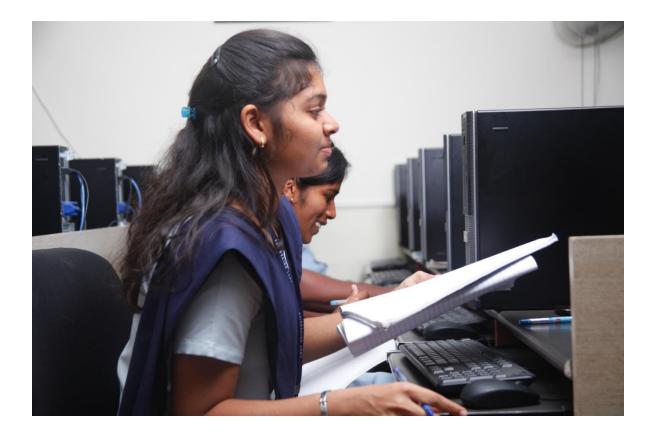
Course	Faculty	Description
Surface Modeling and Analysis- Software Laboratory	Dr. Shameem	Students are able to entering/ importing coordinates for the given vessel, working with the curves, curve types, operations and properties, working with surfaces, surface types and properties, rendering the surface, surface operations, surface creations, trimming and bonding surfaces, working with control points. They could perform surface generation and modeling techniques using appropriate Software.

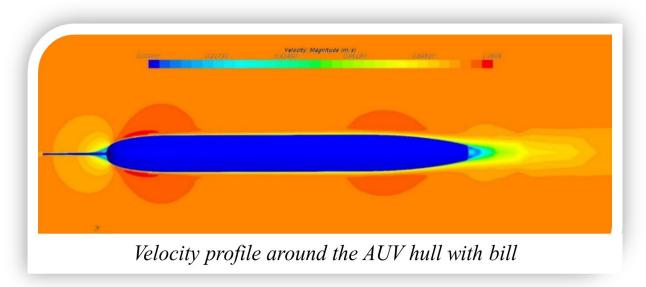






Course	Faculty	Description
Numerical Ship Hydrodynamics – Software Laboratory	Dr. Shameem	Students are able to Execute the numerical problems in Naval Architecture such as ship resistance, hull propeller interaction and motion studies





Course	Faculty	Description
Ship motion and Control	Mr.Vijith P P	Students have Developed a model with the concept of design and tested the model for various wave effects in wave flume tank to know the response of the model in real condition.





Course	Faculty	Description
Fishing Vessel Technology	Mr. MSP Raju	Students have participated in the workshop on FRP boat building to gain experience from the Industry Expert.





Course	Faculty	Description
Introduction t Architecti	Dr. Subir Kumar Satsangi	Students attend the seminar session to get the real problem stated in industry and how to minimize the problem while designing the Hull





Course	Faculty	Description
Industrial Visit	Mr MSP Raju	An Industrial visit to "Ultra Marine Boat Builders (P)Ltd", to interact with the boat building Industry to understand the demand on Fiber reinforce plastic materials and technologies used in boat building industry.







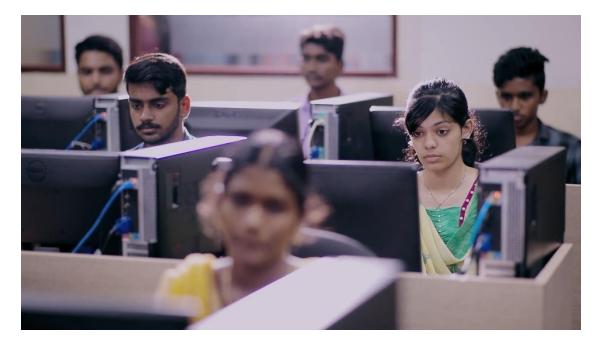


Course	Faculty	Description
Hydrostatics & Stability Laboratory	Cdr. Prashant Kumar	Students are able to do Manual drawings & calculations to perform hydrostatic & Bonjeans, initial stability calculations and surface area calculations.



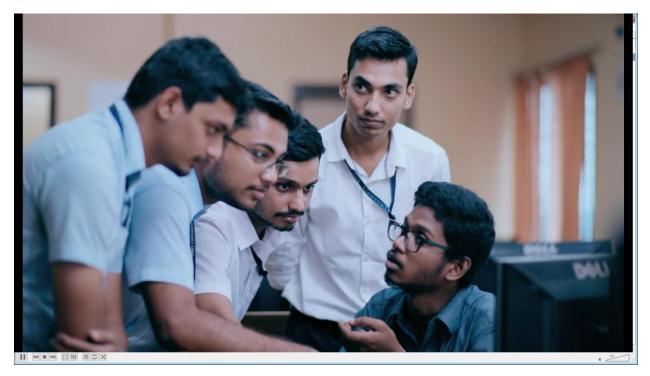


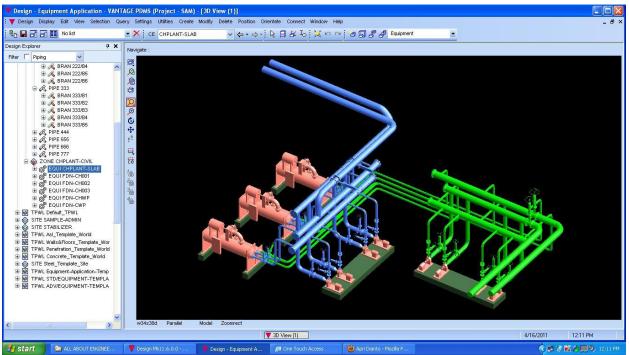
Course	Faculty	Description
Offshore Structure Design software Laboratory	Dr. Shameem	Students are able to create model of the given Jacket platform and Analyze the structure under various conditions and loads using Software.



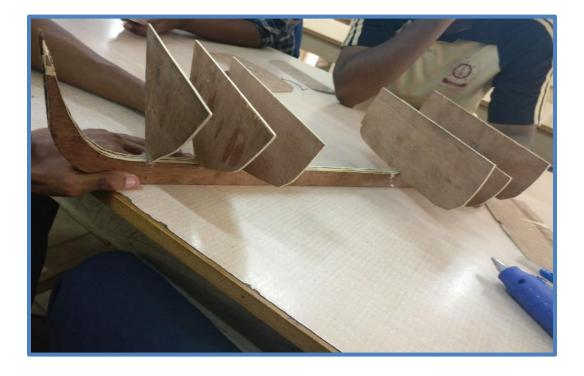


Course	Faculty	Description
Ship System Drawing & Launching calculations Laboratory	Mr Prasob P A	Students are able to Understanding the key features of the piping systems in ships, Drawing Ship systems for a given data, Develop fire and safety plans and Developing the skills for ship's GA plans.





Γ	Course	Faculty	Description
	Introduction to Naval Architecture	Mr. Vinod Vincent	Students are able to Understanding the key concepts of Naval Architecture and developing the model with the help of cardboard sheets.





Course	Faculty	Description
Strength of Ships	Cdr Prashant Kumar	Students are brifly educated on the difficulty of Structure construction and how to minimize the structure failures by increasing the strength of ships







Course	Faculty	Description
Industrial Visit	Mr.Vijith P P Mr Vinod Vincent	Students visited to Royal Arc Electrode to understand the concept of Electrode manufacturing using different materials and their properties to Weld the metals.

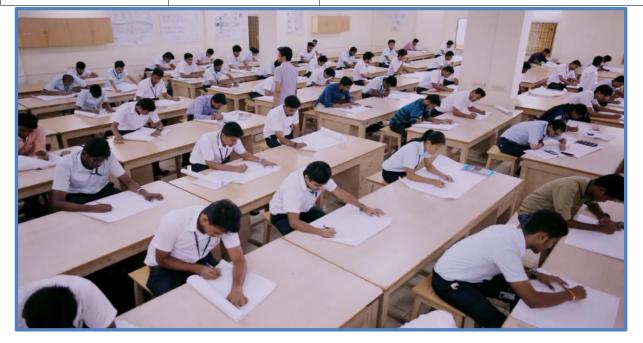








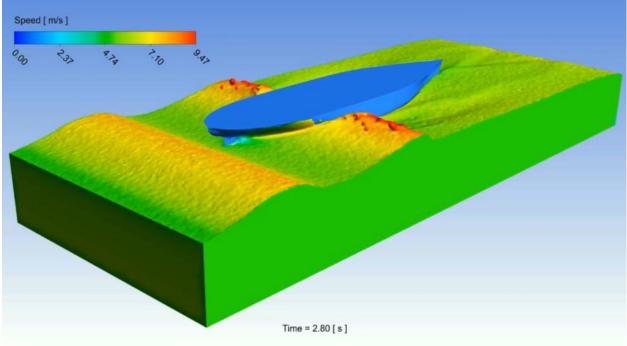
Course	Faculty	Description
Ship Drawing-Lines plan	Mr. Akshar Patel	Students are able to Illustrate Lines plan – fairing process- table of offsets, Views of lines plan, stem and stern profiles



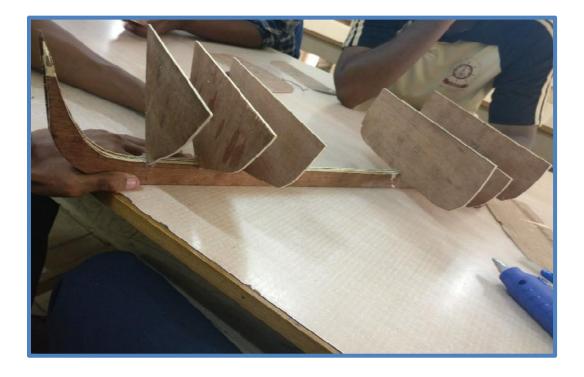


Course	Faculty	Description
Marine Hydrodynamics Laboratory	Dr. Shameem	Students are able to Demonstrate the model making techniques available for floating bodies – with practical exposure to model making





Course	Faculty	Description
Ship Design	Cdr Prashant Kumar	Students are able to Understanding the key concepts of Naval Architecture and developing the model with the help of cardboard sheets.





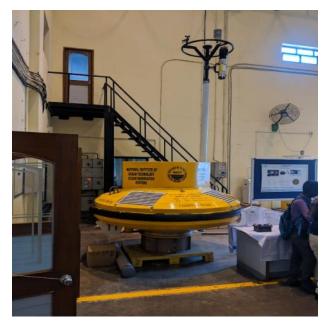
Course	Faculty	Description
Materials and ng Technology	Mr.Himanshu Uppal	Students are inspecting the materials used in boats and construction procedure of the boat with the fisherman.





Course	Faculty	Description
Industrial Visit	Mr.Himanshu Uppal Mr. Y Gopi Krishna	An Industrial visit to "NIOT" which helped the student to visualize and understand the concepts of ROV, Autonomous coring system, Acoustic Testing facility, OTEC Desalination plant and Buoy for collecting MET data in various deep sea operations.









Course	Faculty	Description
Internship	Mr. Himanshu Uppal	Students have undergone Internship in a various shipyards to understand the process of Ship building. They had a chance to visit the ship to visualize the various parts, Machineries & its operations, Navigation room and various plans to get a real observation of ship.



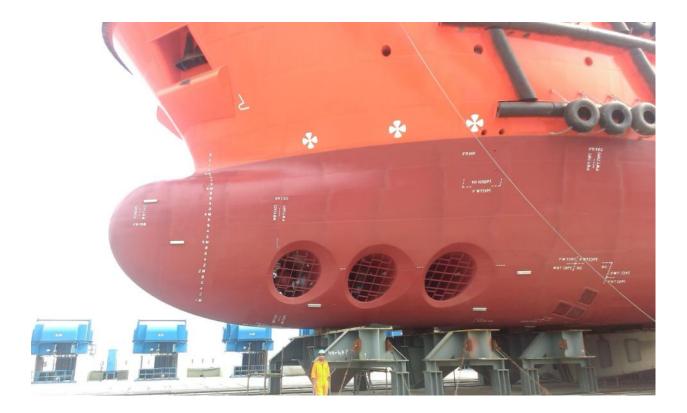


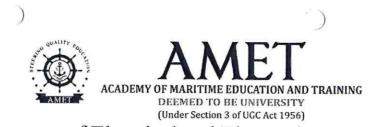
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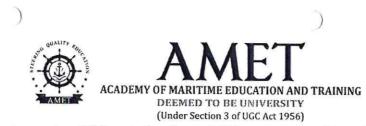






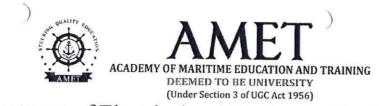


<u>2015-2016</u>						
Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of Introduction		
Electrical Circuit Analysis	UAEE201	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		
Electronic Devices & Circuits	UAEE202	B.E. EEE- Marine	Experiential Learning	2015-2016		
DC and AC Machines	UAEE305	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		
Digital Logic Circuits	UAEE306	B.E. EEE- Marine	Experiential Learning	2015-2016		
Sensors and Transducers	UAEE405	B.E. EEE- Marine	Participation Learning	2015-2016		
Linear Integrated Circuits	UAEE404	B.E. EEE- Marine	Experiential Learning	2015-2016		
Control Systems	UAEE406	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		
Electromagnetic Theory	UAEE403	B.E. EEE- Marine	Participation Learning	2015-2016		
Power Electronics	UAEE505	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		
Marine Electrical Technology	UAEE507	B.E. EEE- Marine	Experiential Learning	2015-2016		
Microprocessor and Microcontroller	UAEE503	B.E. EEE- Marine	Participation Learning	2015-2016		
Marine Engineering-I	UAMEC01	B.E. EEE- Marine	Experiential Learning	2015-2016		
Communication Engineering	UAEE511	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		
Maintenance of Marine Electrical Equipment	UAEE513	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		
Distributed Computer Control System	UAEE514	B.E. EEE- Marine	Experiential Learning	2015-2016		
Electrical Estimation and Wiring	UAEE515	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		
Process Control and Marine Automation	UAEE604	B.E. EEE- Marine	Experiential Learning	2015-2016		
Digital Signal Processing	UAEE602	B.E. EEE- Marine	Participation Learning	2015-2016		
Design of Electrical Machines	UAEE601	B.E. EEE- Marine	Experiential Learning	2015-2016		
Marine Engineering – II	UAMEC02	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		
Transmission & Distribution	UAEE608	B.E. EEE- Marine	Experiential Learning	2015-2016		
Electrical Power Plant Engineering	UAEE611	B.E. EEE- Marine	Problem Solving Methodology	2015-2016		



Electrical Hybrid Vehicles	UAEE609	B.E. EEE- Marine	Experiential Learning	2015-2016
Electrical Energy Generation, Utilization & Conservation	UAEE610	B.E. EEE- Marine	Experiential Learning	2015-2016
Solid State Drives	UAEE706	B.E. EEE- Marine	Participation Learning	2015-2016
High Voltage on Merchant Ships	UAEE702	B.E. EEE- Marine	Experiential Learning	2015-2016
Marine Control Engineering & Automation	UAEEC02	B.E. EEE- Marine	Experiential Learning	2015-2016
Marine Electrical System Design & Layout	UAEE705	B.E. EEE- Marine	Participation Learning	2015-2016
Special Electrical Machines	UAEE712	B.E. EEE- Marine	Problem Solving Methodology	2015-2016
Embedded System Design	UAEE711	B.E. EEE- Marine	Experiential Learning	2015-2016
Marine Electrical Protection and Switch Gears	UAEE704	B.E. EEE- Marine	Participation Learning	2015-2016
Mobile Communication	UAEE801	B.E. EEE- Marine	Experiential Learning	2015-2016
Flexible AC Transmission Systems	UAEE802	B.E. EEE- Marine	Problem Solving Methodology	2015-2016
Total Quality Management	UABSC01	B.E. EEE- Marine	Participation Learning	2015-2016

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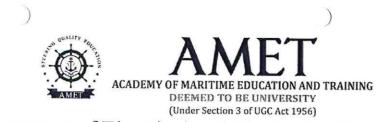
2016-2017					
Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of introduction	
Digital Logic Circuits	UBEE303	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
DC and AC Machines	UBEE302	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Electric Circuits and Electronic Devices	UBEE309	B.E. EEE- Marine	Experiential Learning	2016-2017	
Transducers	UBEE405	B.E. EEE- Marine	Experiential Learning	2016-2017	
Linear Integrated Circuits	UBEE404	B.E. EEE- Marine	Experiential Learning	2016-2017	
Control Systems	UBEE401	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Electromagnetic Theory	UBEE402	B.E. EEE- Marine	Experiential Learning	2016-2017	
Power Electronics	UBEE505	B.E. EEE- Marine	Participation Learning	2016-2017	
Marine Electrical Technology	UBEE508	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Microprocessor and Microcontroller	UBEE503	B.E. EEE- Marine	Experiential Learning	2016-2017	
Marine Engineering – I	UBMEC01	B.E. EEE- Marine	Experiential Learning	2016-2017	
Communication Engineering	UBEE511	B.E. EEE- Marine	Experiential Learning	2016-2017	
Maintenance of Marine Electrical Equipment	UBEE513	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Distributed Computer Control System	UBEE514	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Electrical Estimation and Wiring	UBEE515	B.E. EEE- Marine	Experiential Learning	2016-2017	
Process Control and Marine Automation	UBEE604	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Digital Signal Processing	UBEE602	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Design of Electrical Machines	UBEE601	B.E. EEE- Marine	Participation Learning	2016-2017	
Marine Engineering – II	UBMEC02	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Measurements and Instrumentation	UBEE608	B.E. EEE- Marine	Participation Learning	2016-2017	
Electrical Power Plant Engineering	UBEE611	B.E. EEE- Marine	Problem Solving Methodology	2016-2017	
Electrical Hybrid Vehicles	UBEE609	B.E. EEE- Marine	Participation Learning	2016-2017	



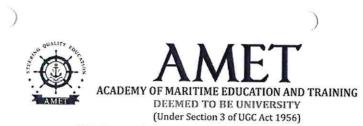


Electrical Energy Generation, Utilization &				
Conservation	UBEE610	B.E. EEE- Marine	Problem Solving Methodology	2016-2017
Solid State Drives	UBEE706	B.E. EEE- Marine	Experiential Learning	0016 0017
High Voltage on Merchant Ships	UBEE702	B.E. EEE- Marine	Participation Learning	2016-2017
Marine Control Engineering and Automation	UBEEC02	B.E. EEE- Marine		2016-2017
Marine Electrical Protection	CDLLC02	D.L. LLL- Wallie	Experiential Learning	2016-2017
and Switch Gears	UBEE704	B.E. EEE- Marine	Experiential Learning	2016-2017
Marine Electrical System Design and Layout	UBEE705	B.E. EEE- Marine	Participation Learning	2016-2017
Special Electrical Machines	UBEE712	B.E. EEE- Marine	Problem Solving Methodology	
Embedded System Design	UBEE711	B.E. EEE- Marine	Experiential Learning	2016-2017
Mobile Communication	UBEE801	B.E. EEE- Marine		2016-2017
Flexible AC Transmission Systems	UBEE802	B.E. EEE- Marine	Participation Learning	2016-2017
Total Quality Management	UBBSC01		Experiential Learning	2016-2017
	UDB2C01	B.E. EEE- Marine	Problem Solving Methodology	2016-2017

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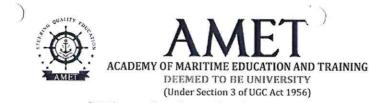


		<u>2017-2018</u>		
Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of introduction
Digital Logic Circuits	UBEE303	B.E. EEE- Marine	Experiential Learning	2017-2018
DC and AC Machines	UBEE302	B.E. EEE- Marine	Problem Solving Methodology	2017-2018
Electric Circuits and Electronic Devices	UBEE309	B.E. EEE- Marine	Experiential Learning	2017-2018
Transducers	UBEE405	B.E. EEE- Marine	Experiential Learning	2017-2018
Linear Integrated Circuits	UBEE404	B.E. EEE- Marine	Participation Learning	2017-2018
Control Systems	UBEE401	B.E. EEE- Marine	Experiential Learning	2017-2018
Electromagnetic Theory	UBEE402	B.E. EEE- Marine	Experiential Learning	2017-2018
Power Electronics	UBEE505	B.E. EEE- Marine	Participation Learning	2017-2018
Marine Electrical Technology	UBEE508	B.E. EEE- Marine	Experiential Learning	2017-2018
Microprocessor and Microcontroller	UBEE503	B.E. EEE- Marine	Participation Learning	2017-2018
Marine Engineering – I	UBMEC01	B.E. EEE- Marine	Participation Learning	2017-2018
Communication Engineering	UBEE511	B.E. EEE- Marine	Experiential Learning	2017-2018
Maintenance of Marine Electrical Equipment	UBEE513	B.E. EEE- Marine	Problem Solving Methodology	2017-2018
Distributed Computer Control System	UBEE514	B.E. EEE- Marine	Problem Solving Methodology	2017-2018
Electrical Estimation and Wiring	UBEE515	B.E. EEE- Marine	Experiential Learning	2017-2018
Process Control and Marine Automation	UBEE604	B.E. EEE- Marine	Participation Learning	2017-2018
Digital Signal Processing	UBEE602	B.E. EEE- Marine	Problem Solving Methodology	2017-2018
Design of Electrical Machines	UBEE601	B.E. EEE- Marine	Experiential Learning	2017-2018
Marine Engineering – II	UBMEC02	B.E. EEE- Marine	Problem Solving Methodology	2017-2018
Measurements and Instrumentation	UBEE608	B.E. EEE- Marine	Problem Solving Methodology	2017-2018
Electrical Power Plant Engineering	UBEE611	B.E. EEE- Marine	Experiential Learning	2017-2018
Electrical Hybrid Vehicles	UBEE609	B.E. EEE- Marine	Experiential Learning	2017-2018



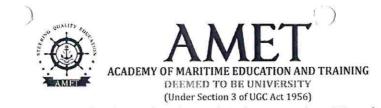
Electrical Energy Generation, Utilization & Conservation	UBEE610	B.E. EEE- Marine	Problem Solving Methodology	2017-2018
Solid State Drives	UBEE706	B.E. EEE- Marine	Experiential Learning	
High Voltage on Merchant Ships	UBEE702	B.E. EEE- Marine	Participation Learning	2017-2018
Marine Control Engineering and Automation	UBEEC02	B.E. EEE- Marine	Experiential Learning	2017-2018
Marine Electrical Protection and Switch Gears	UBEE704	B.E. EEE- Marine	Experiential Learning	2017-2018
Marine Electrical System Design and Layout	UBEE705	B.E. EEE- Marine	Participation Learning	2017-2018
Special Electrical Machines	UBEE712	B.E. EEE- Marine	Problem Solving Methodology	2017-2018
Embedded System Design	UBEE711	B.E. EEE- Marine	Experiential Learning	2017-2018
Mobile Communication	UBEE801	B.E. EEE- Marine	Participation Learning	2017-2018
Flexible AC Transmission Systems	UBEE802	B.E. EEE- Marine	Experiential Learning	2017-2018
Total Quality Management	UBBSC01	B.E. EEE- Marine	Problem Solving Methodology	2017-2018

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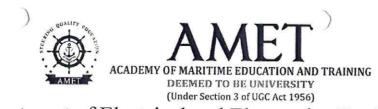


<u>2018-2019</u>				
Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of Introduction
Electric Circuit Analysis	UDEE301	B.E. EEE- Marine	Problem Solving Methodology	2018-2019
Electromagnetic Theory	UDEE302	B.E. EEE- Marine	Problem Solving Methodology	2018-2019
Electrical Machines -I	UDEE303	B.E. EEE- Marine	Experiential Learning	2018-2019
Electron Devices and Circuits	UDEE304	B.E. EEE- Marine	Experiential Learning	2018-2019
Analog Integrated Circuits	UDEE401	B.E. EEE- Marine	Experiential Learning	2018-2019
Electrical Machines -II	UDEE402	B.E. EEE- Marine	Problem Solving Methodology	2018-2019
Digital System Design	UDEE403	B.E. EEE- Marine	Experiential Learning	2018-2019
Transmission and Distribution	UDEE404	B.E. EEE- Marine	Participation Learning	2018-2019
Professional Ethics and Human Values	UDVCC06	B.E. EEE- Marine	Participation Learning	2018-2019
Microprocessors & Microcontrollers	UDEE501	B.E. EEE- Marine	Problem Solving Methodology	2018-2019
Marine Electrical Technology	UDEE502	B.E. EEE- Marine	Experiential Learning	2018-2019
Control Systems	UDEE504	B.E. EEE- Marine	Problem Solving Methodology	2018-2019
Power Electronics	UDEE601	B.E. EEE- Marine	Experiential Learning	2018-2019
Power System Analysis	UDEE602	B.E. EEE- Marine	Problem Solving Methodology	2018-2019
Digital Signal Processing	UDEE603	B.E. EEE- Marine	Experiential Learning	2018-2019
Electrical Power Plant Engineering	UDEEE02	B.E. EEE- Marine	Experiential Learning	2018-2019
Instrumentation and Control	UDEEE05	B.E. EEE- Marine	Problem Solving Methodology	2018-2019
Smart Sensors	UDEE002	B.E. EEE- Marine	Participation Learning	2018-2019
Introduction to Robotics	UDEE004	B.E. EEE- Marine	Participation Learning	2018-2019





<u>2019-2020</u>				
Name of the Course	Course Code	Name of the Programme	Student centric methods	Year of Introduction
Electric Circuit Analysis	UDEE301	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Electromagnetic Theory	UDEE302	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Electrical Machines-I	UDEE303	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Electron Devices and Circuits	UDEE304	B.E. EEE- Marine	Experiential Learning	2019-2020
Microprocessors & Microcontrollers	UDEE501	B.E. EEE- Marine	Experiential Learning	2019-2020
Marine Electrical Technology	UDEE502	B.E. EEE- Marine	Experiential Learning	2019-2020
Communication Engineering	UDEE503	B.E. EEE- Marine	Experiential Learning	2019-2020
Electrical Power Plant Engineering	UDEEE02	B.E. EEE- Marine	Participation Learning	2019-2020
Instrumentation and Control	UDEEE05	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Professional Ethics and Human Values	UDVCC06	B.E. EEE- Marine	Experiential Learning	2019-2020
Solid State Drives	UBEE706	B.E. EEE- Marine	Experiential Learning	2019-2020
High Voltage on Merchant Ships	UBEE702	B.E. EEE- Marine	Experiential Learning	2019-2020
Marine Control Engineering and Automation	UBEEC02	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Marine Electrical Protection and Switch Gears	UBEE704	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Special Electrical Machines	UBEE712	B.E. EEE- Marine	Experiential Learning	2019-2020
Embedded System Design	UBEE711	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Marine Electrical System Design and Layout	UBEE705	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Analog Integrated Circuits	UDEE401	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Electrical Machines -II	UDEE402	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Digital System Design	UDEE403	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Transmission and Distribution	UDEE404	B.E. EEE- Marine	Problem Solving Methodology	2019-2020



Power Electronics	UDEE601	B.E. EEE- Marine	Participative Learning	2019-2020
Power System Analysis	UDEE602	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Digital Signal Processing	UDEE603	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Design of Electrical Apparatus	UDEEE07	B.E. EEE- Marine	Problem Solving Methodology	2019-2020
Measurements and Instrumentation	UDEEE08	B.E. EEE- Marine	Experiential Learning	2019-2020
Distributed Computer Control Systems(DCCS)	UDEEE12	B.E. EEE- Marine	Experiential Learning	2019-2020
High Voltage Engineering	UDEEE13	B.E. EEE- Marine	Experiential Learning	2019-2020
Mobile Communication	UBEE801	B.E. EEE- Marine	Experiential Learning	2019-2020
Flexible AC Transmission Systems	UBEE802	B.E. EEE- Marine	Experiential Learning	2019-2020
Total Quality Management	UBBSC01	B.E. EEE- Marine	Participative Learning	2019-2020

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Course	Faculty Name	Description
High Voltage on Merchant Ships	Mr. P. Veerakumar	Hands on Training has been given to students on various circuit breakers like SF6, Vacuum Circuit Breakers, Air Circuit Breakers for high voltage applications.









Course	Faculty Name	Description
Electrical Machines	Mr. S. Janarthanan	Experimental learning on Various Electrical Machines like Induction motors, synchronous motor and Transformer to get a practical exposure in the field of electrical machines









Course	Faculty Name	Description
Marine Electrical Technology	Mr. Jeby Thomas	Experimental learning on various Marine Electrical terminology like motor speed control, basic electric circuits etc. to get a practical exposure on marine technology.









Course	Faculty Name	Description
Electron Devices and Circuits	Mr. M. Deepak	Hands-on Training on various Power Electronic switch and its characteristics with CRO operations









Course	Faculty Name	Description
Microprocessor and Microcontroller	Dr. A. Durga Devi	Hands-on Training on various microprocessor like 8051, 8085 and PIC Microcontroller









Course	Faculty Name	Description
Power Electronics	Mrs. R. Elavarasi	Hands-on Training on Power Electronics Circuits like rectifier, converter. Students can able to analyse the performance of power
		electronics circuits.









Course	Faculty Name	Description
Marine Control Engineering and Automation	Mrs. A. Mubashira Anjum	Hands-on Training on various PLC. Students can able to analyse and design PLC Controllers.
		They can able to explain various instrumentation and measurement control devices.









Course	Faculty Name	Description
Marine Control Engineering and Automation	Ms. T. Dhanya	Experimental leaning has been given to students on various process control system and automation techniques.









Course	Faculty Name	Description
Digital Signal Processing	Mr. M. Deepak	Students can able to solve the real time problem
		on Digital Signal Processing









Course	Faculty Name	Description
High Voltage on Merchant ships	Ms. G. Jegadeeswari	Students can able to know the operation of various circuit breakers and power generation on on-board ship with practical experiments able to know safety measures with protective devices.









Course	Faculty Name	Description
Solid State Drives	Mr.S. Janarthanan	Video Lecture on Solid State Drives is arranged for the Students to know the operation of various drives and its application.





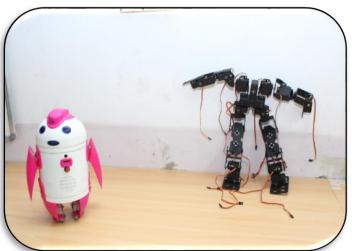




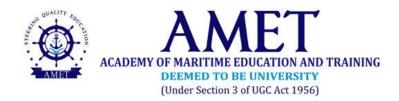
Course	Faculty Name	Description
Introduction to Robotics	Dr. G. Themozhi	Students can able to know the various types of
		robots like penguin robots, Biped walking
		Robots and working principle and operation.
		Students can able to design different types of
		robots based upon its applications.











DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

2.3.1 STUDENT CENTRIC METHODS

S.No	ACADEMIC YEAR
1	2019-2020 (ODD & EVEN SEMESTER)
2	2018-2019 (ODD & EVEN SEMESTER)
3	2017-2018 (ODD & EVEN SEMESTER)
4	2016-2017 (ODD & EVEN SEMESTER)
5	2015-2016 (ODD & EVEN SEMESTER)

Course	Faculty Name	Description
Control Systems	Dr. Rajanayagam	Students can able to solve various problems related to control
	(Adjunct faculty)	systems like bode plot, polar plot and root locus.









Course	Faculty Name	Description
Process Control and Marine Automation	Ms. Dhanya	Experimental leaning has been given to students on various process control system and automation techniques.

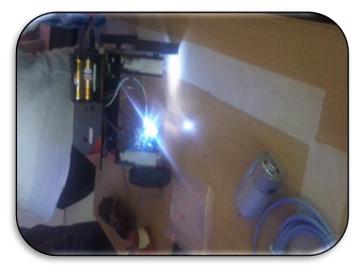




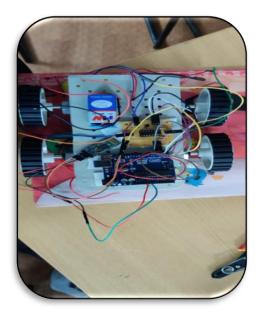


Course	Faculty Name	Description
Power Electronics	Dr. Karthikeyan	Students can able to design power electronics converter for electric vehicle applications.









Course	Faculty Name	Description
Digital System Design	Dr. Sasilatha	Students can able to design PCB. Hands-on training
		has been given to students to design simple PCB









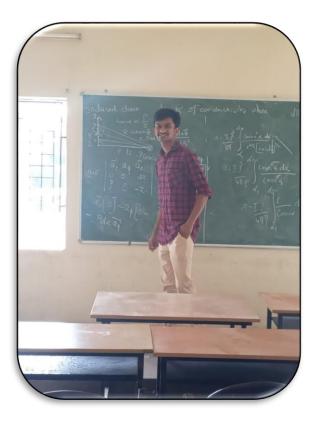
Course	Faculty Name	Description
Marine Electrical Protection and Switch Gear	Mr. K.Manikandan	Students can able to know the operation of various insulators, circuit breakers and power generation on on-board ship with practical experiments.







Course	Faculty Name	Description
Digital System Design	Dr. T. Sasilatha	Students can able to solve various digital conversion like binary to decimal, octal to hexadecimal etc.





Course	Faculty Name	Description
Electrical Machines- I	Dr. T. Baldwin	Students can able to understand the basic operation
	Immanuel	of various electrical machines like shunt motor,
		induction motor etc.



Course	Faculty Name	Description
Marine Electrical Technology	Dr. T. Baldwin Immanuel	Students can able to understand the basic operation of various electrical machines starters like induction motor starters etc.



Course	Faculty Name	Description
DC and AC machines	Mr. R. Sundar	Students can able to understand the basic operation of various electrical machines starters like induction motor starters etc.





