



NAVAL ARCHITECTURE

A presentation for
students, teachers &
parents about studying and
careers in Naval
Architecture in UK

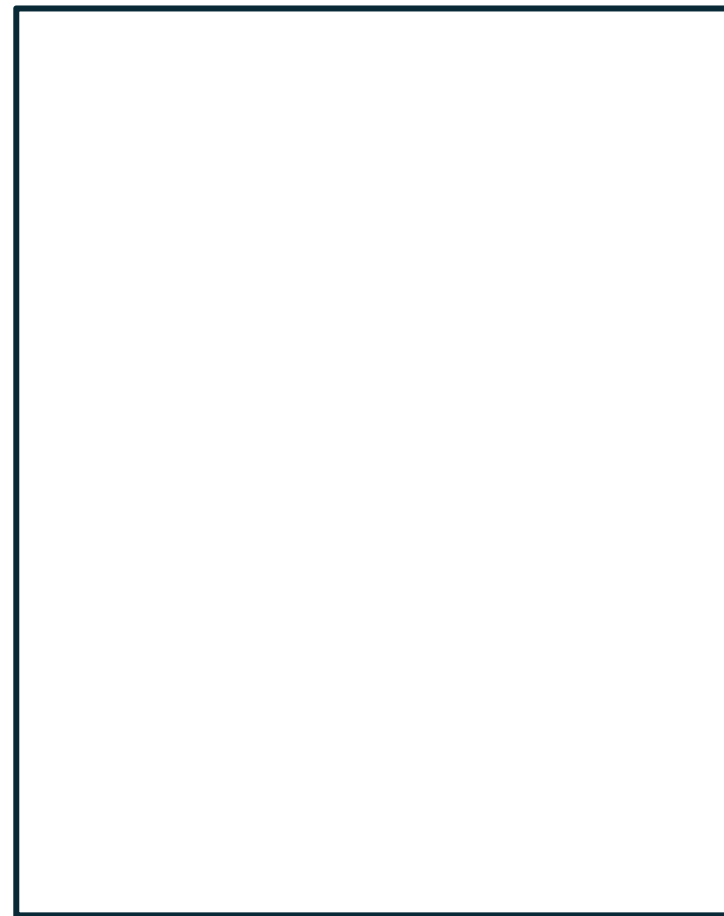
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WHO AM I?



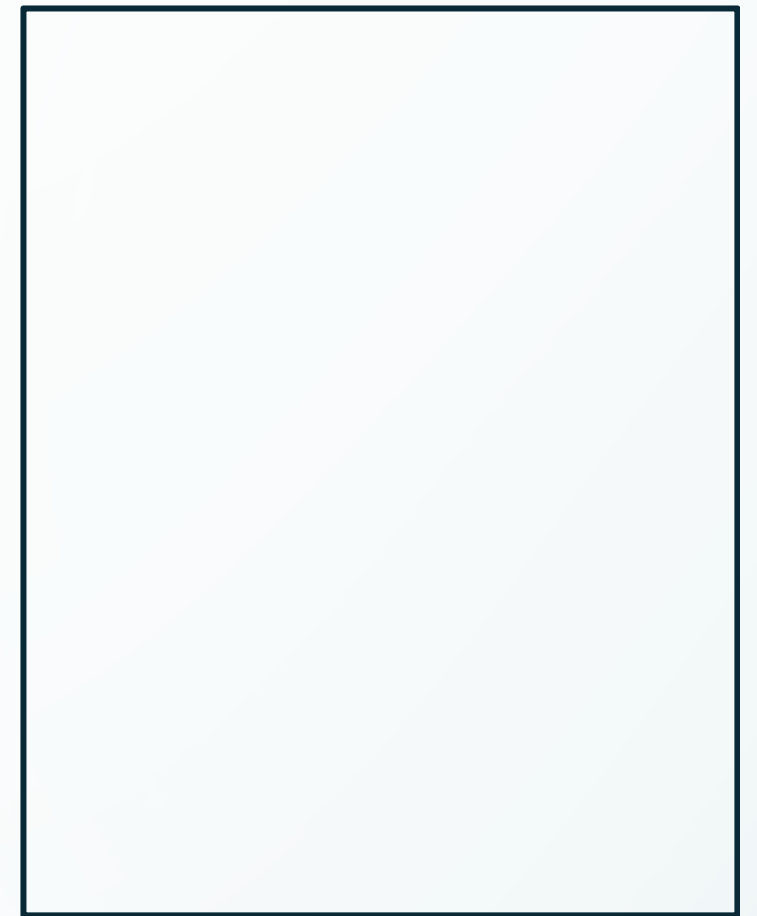
JOB



STUDY



OTHER



OTHER

CURRENT ROLE

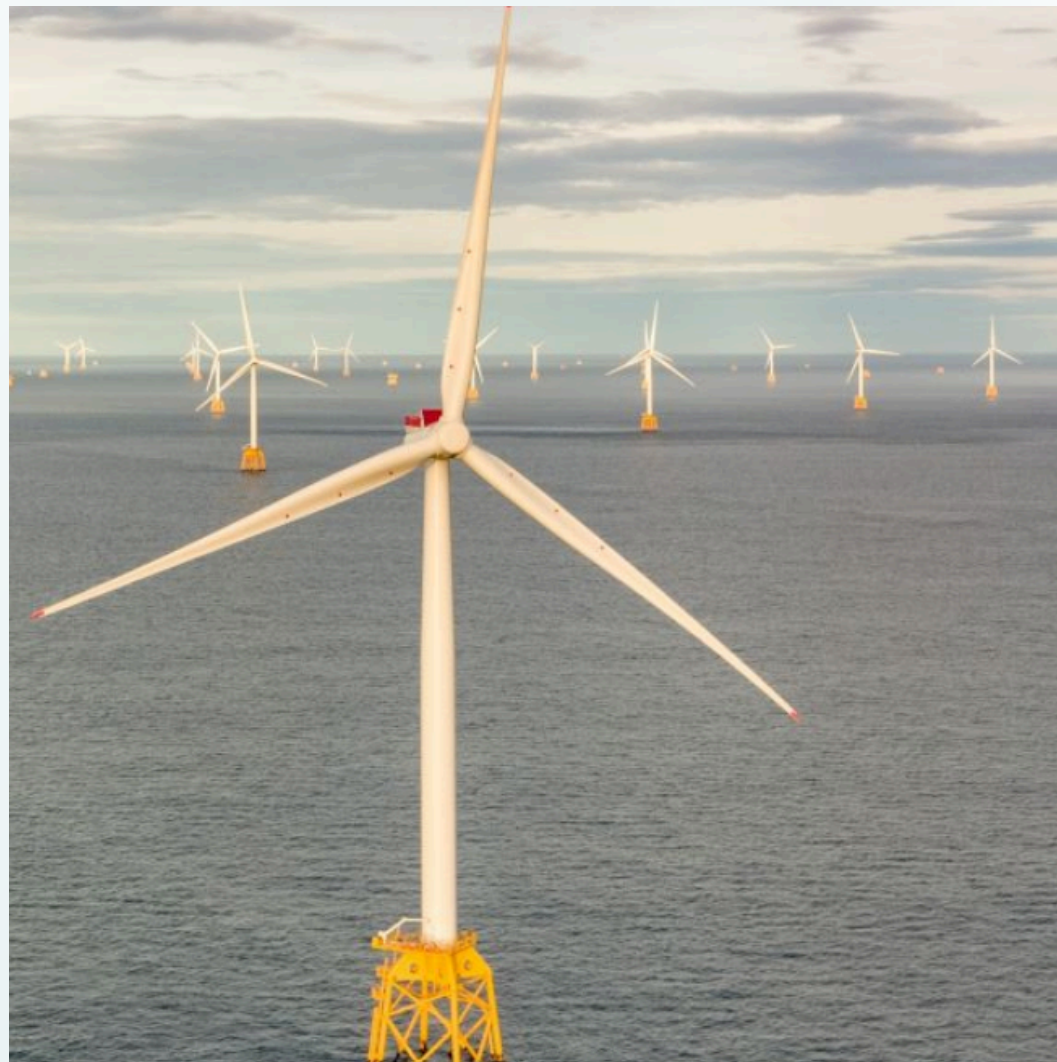
- A combination of hands-on experience & theory
- Specific department & in-depth immersion to the discipline
- Extensive past experience among colleagues
- Critical thinking required
- People with different educational backgrounds can work in the Industry
- Easy to approach colleagues regardless of their position within the company
- Professional Development & soft skills





RESPONSIBILITIES IN THE ROLE

WHAT IS A NAVAL ARCHITECT



Ocean Engineering



Marine Engineering



High-Performance vehicles

- Around 90% of traded goods are transported globally over the waves
- Ocean engineering allows offshore renewable, oil and gas structures to operate
- Leisure craft (sailing and motorboats), and boat racing are designed and built by naval architects (high-performance stream)

**WHY IS IT
IMPORTANT**



UNIVERSITY COURSES



There are a range of courses offered at different universities which specialise in slightly different aspects of Naval Architecture.

Universities you can study at include:

- Newcastle University
- University of Southampton
- University of Strathclyde
- University College London
- University of Plymouth



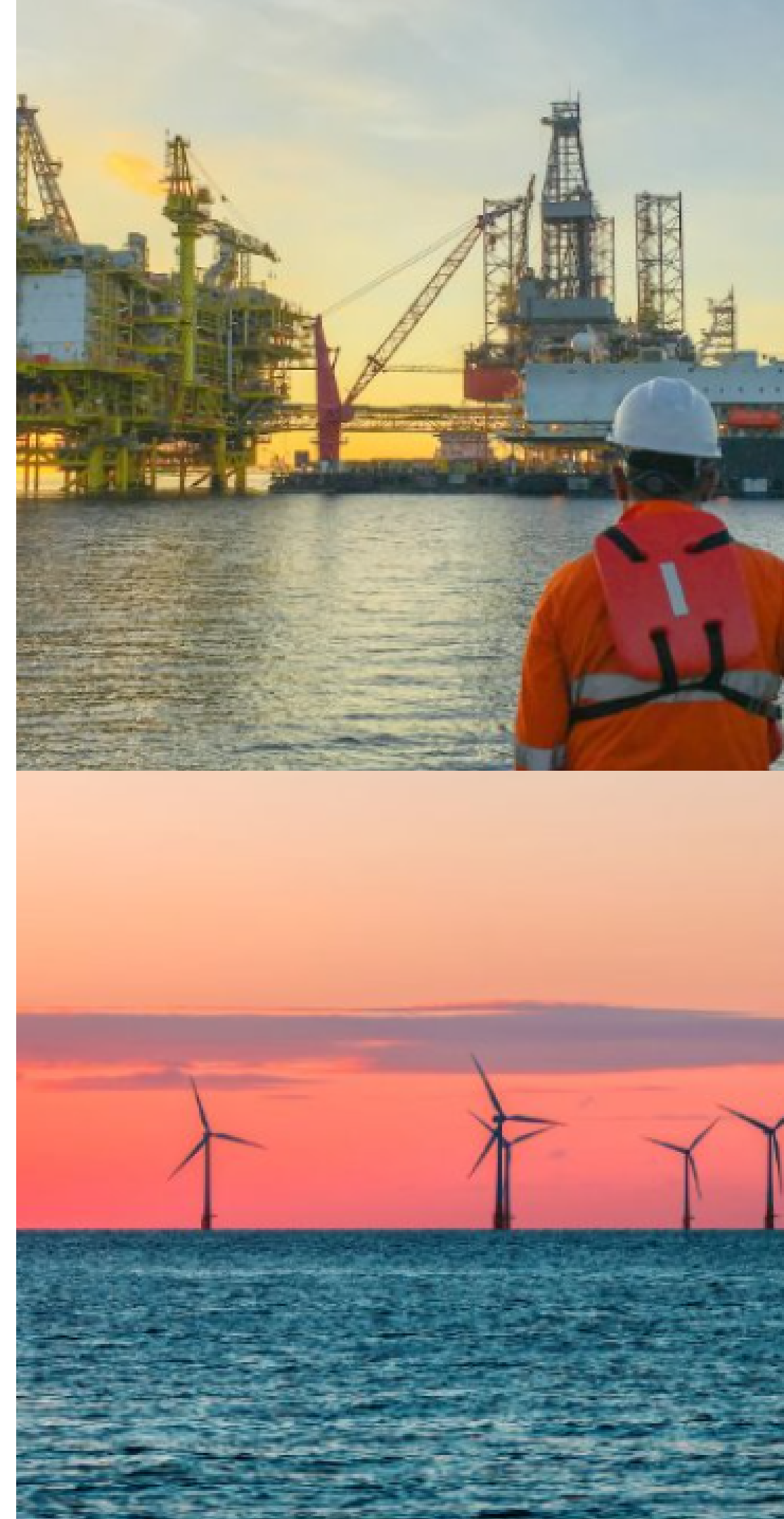


NAVAL ARCHITECTURE & MARINE ENGINEERING University of Strathclyde

- Naval architects and marine engineers deal with the world's largest moving structures and most powerful vehicles
- Responsible for the design and maintenance of merchant ships able to carry and transport variety of cargo
- Cruise ships, ferry boats, tankers, cargo ships, containerships, naval ships

NAVAL ARCHITECTURE & OCEAN ENGINEERING

- Naval architects and ocean engineers work with oil and gas, but also offshore renewable energy from wind, waves, and tidal currents.
- Ocean engineering deals with the technical aspects of fixed and floating marine structures and systems related to harnessing ocean resources
- Offshore renewable industry is full of opportunities for naval architects



NAVAL ARCHITECTURE & HIGH-PERFORMANCE VEHICLES



- Naval architects within this field design and build lighter, stronger and faster vehicles
- Skills of ship design, construction, operation and maintenance
- Advanced material and technologies are used

NAVAL ARCHITECTURE & MARINE ENGINEERING

Newcastle University

The following terminology is provided by the Newcastle University:

Naval Architecture

- Focuses on the advanced structural and hydrodynamic analysis of ships and small craft.

Marine Engineering

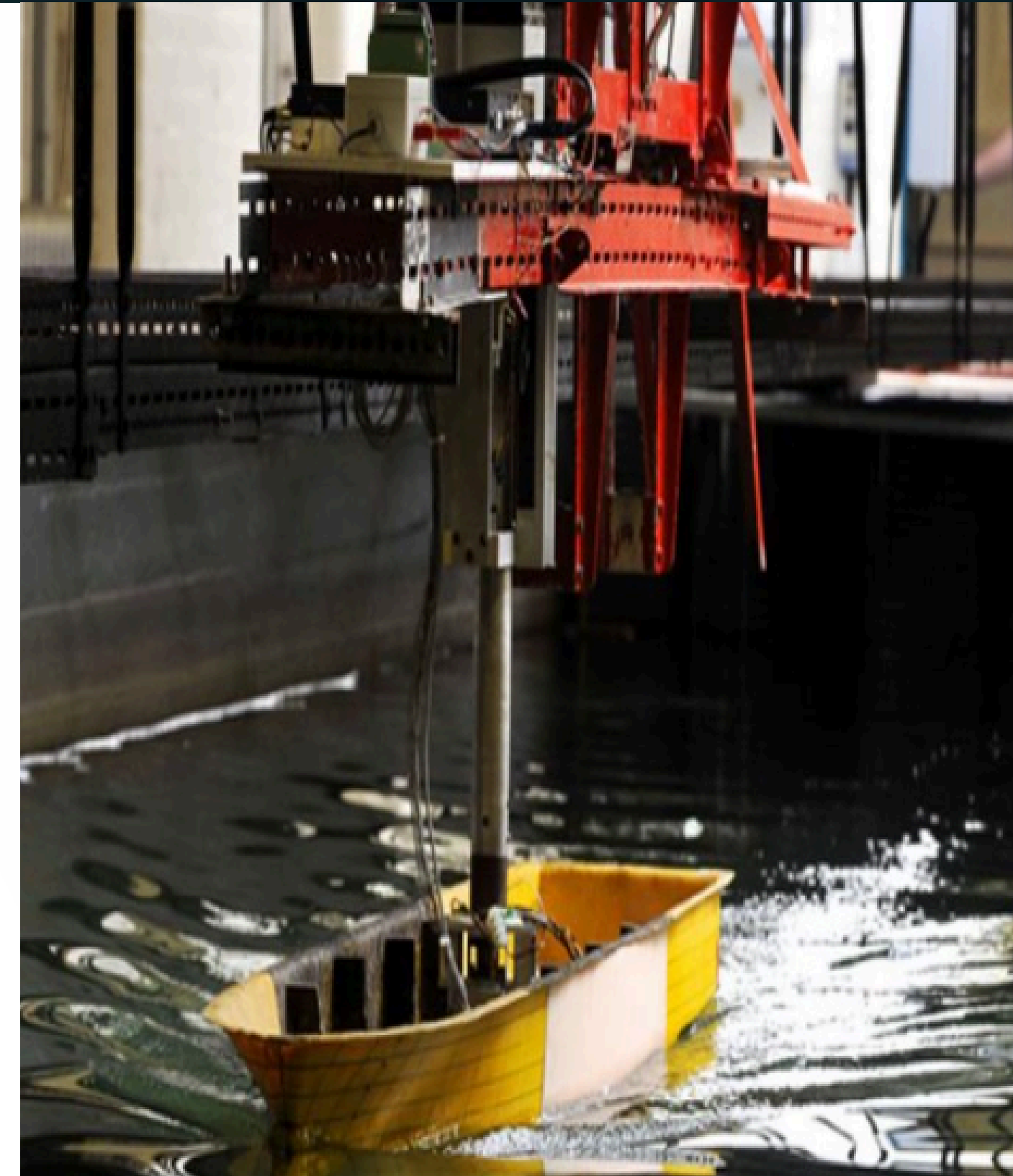
- Explores key aspects of power transmission, systems and digitalisation of ship machinery.

Subsea Engineering

- Learn about offshore support systems for operation in harsh maritime environments

Offshore Renewables

- Study the complex dynamics of offshore energy harvesting systems and infrastructure

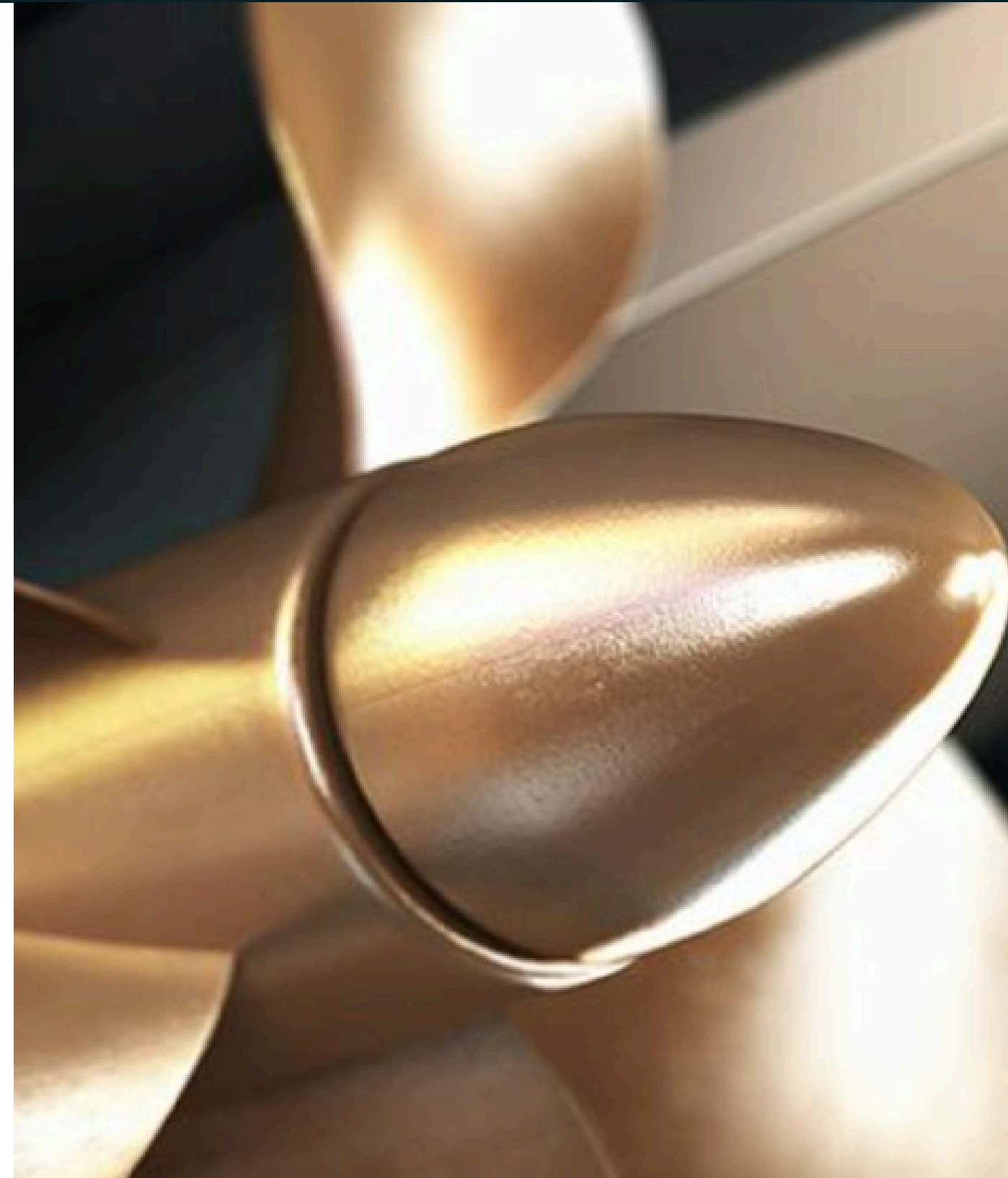


NAVAL ARCHITECTURE & MARINE ENGINEERING

University of Plymouth

The following terminology is provided by the University of Plymouth:

Marine technologists are engineers focused on engineering for life at sea. As problem solvers, engineers design, create and use tools in every industry from nanotech to agritech. In year 4, you have the option to choose a **specialist 'with composites'** pathway, as one will be able to study the design and manufacture of specialist materials

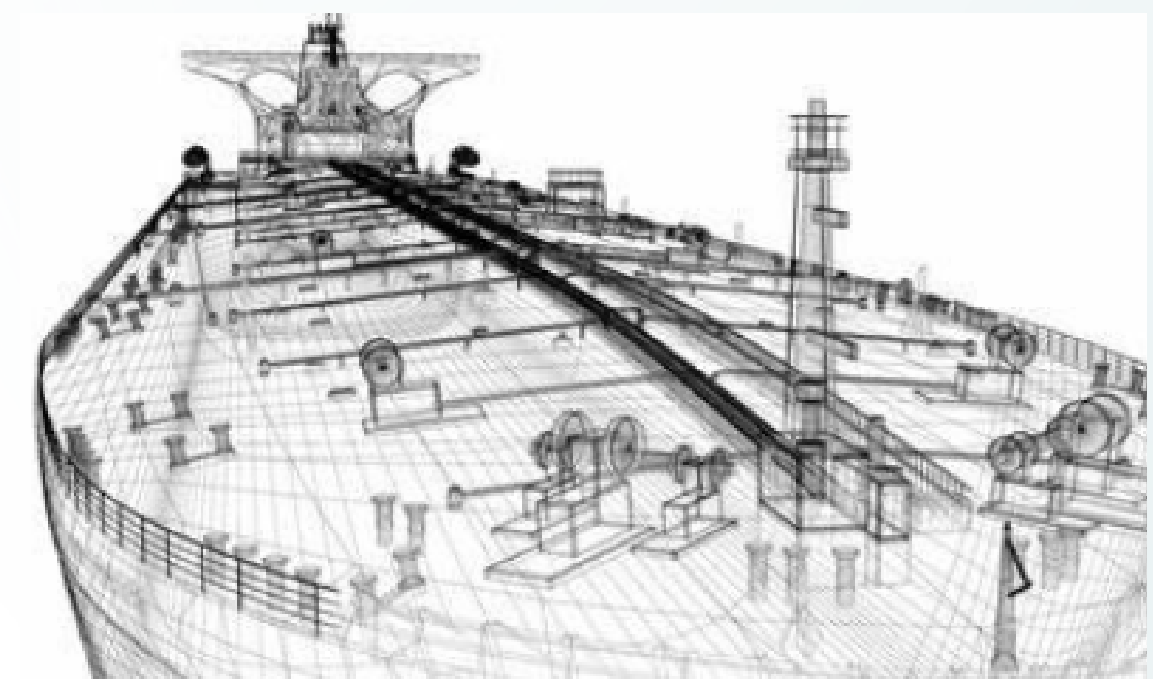
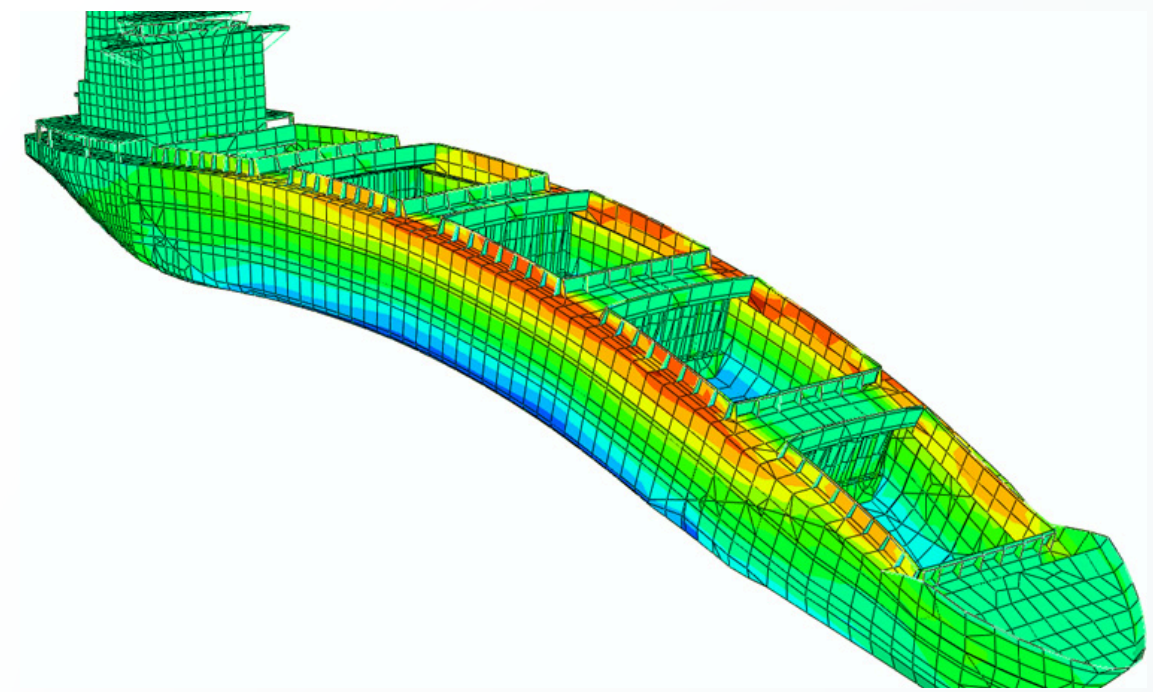


WHO CAN BE A NAVAL ARCHITECT

You can be a Naval Architect

If you are interested in:

- Maths and Science
- Innovation and creativity
- Engineering and Technologies
- Design
- Theoretical as well as practical application of your knowledge
- Solving problems



GCSE

A combination of subjects will be required. A general guide can be found below:

- **Mathematics:** Essential for understanding the complex calculations and problem-solving required in naval architecture.
- **Physics:** Important for grasping the principles of mechanics, fluid dynamics, and materials science, all of which are crucial in naval architecture.
- **English Language:** Good communication skills are important for writing reports and documenting research.
- **Design and Technology:** Provides foundational knowledge in materials and design processes, which can be helpful.

A - LEVELS

A combination of subjects will be required. A general guide can be found below:

- **Mathematics:** A critical subject for naval architecture, as it underpins many of the calculations and technical analyses you'll need to perform.
- **Physics:** Essential for understanding the principles of forces, mechanics, and fluid dynamics, all of which are crucial in the field of naval architecture.
- **Further Mathematics** (optional but advantageous): While not always required, it can provide a deeper mathematical background that is useful for more complex problems in naval architecture.
- **Design and Technology** (optional but useful): Offers insight into materials and design processes, which can be relevant to the practical aspects of naval architecture.
- **Engineering** (if available): Provides a broader understanding of engineering principles and applications, which can complement the study of naval architecture.

OTHER ROUTES TO NAVAL ARCHITECTURE

- Foundation Degrees and Foundation Years
- Vocational and BTEC Qualifications
- Higher National Certificates (HNC) and Diplomas (HND)
- Apprenticeships
- Access to Higher Education Courses
- International Baccalaureate (IB)
- University Transfer and Mature Entry



HOW TO GET ENGAGED



Study Maths &
Science



Learn more
about RINA



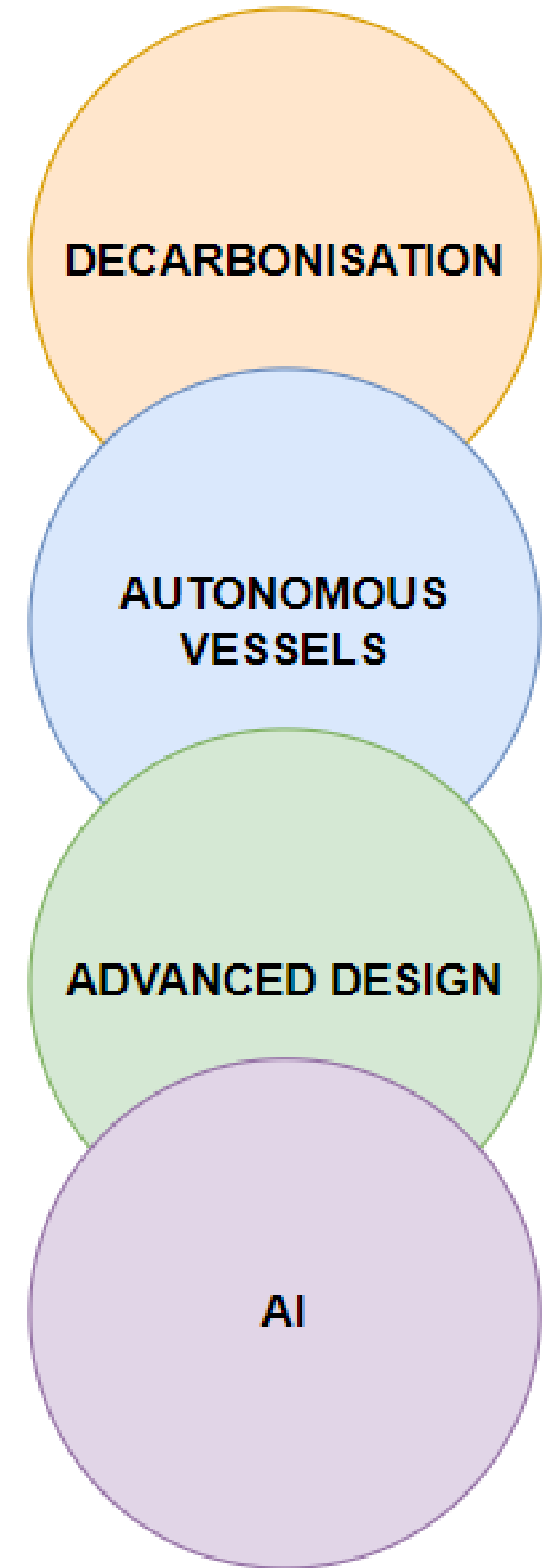
Study
engineering



Take part in
STEM activities

A FIELD WITH A FUTURE

- Opportunities to work all over the world
- A very active and established Industry with high potential developing subfields
- Mandatory to worldwide trade
- Exceptional opportunities and compensation
- New challenges futureproof the need for Naval Architects for many years
- Highly innovative field



Q&A

Questions
?