

## **Annex 1 (AAS)**

### **Guideline - Research Proposals for All Academic Staff FY2027 (Research Period: May 2027 to May 2028)**

#### **Theme 1: Maritime workforce development for future skills**

**(Max. USD 60,000)**

**Possible key concepts to be structured and explored within the theme, not limited to the following:**

- Simulation, Virtual Reality (VR), and Augmented Reality (AR)
- Lifelong learning, e-learning, distance learning
- Green skills
- Digital skills
- AI and data science
- STCW Convention 1978, as amended
- Non-technical skills development

#### **Desirable Goals**

- Introducing innovative MET curricula for digitalisation and decarbonisation
- Applying best practices to MET
- Innovative approaches to implementation of Body of Knowledge
- Identifying amendments of relevant IMO regulations, including future seafarer competencies
- Introducing new approaches to soft skill development
- Integrating advanced digital skills (AI, automation, digital literacy)
- Re-skilling/upskilling environmental competencies

#### **Theme 2: Technical pathways to implement the IMO Net-Zero Framework**

**(Max. USD 60,000)**

**Possible key concepts to be structured and explored within the theme, not limited to the following:**

- GHG reduction technologies
- Emission reduction and pollution prevention
- Vessel design and adaptation for the adoption of alternative fuels
- Safety and regulatory compliance
- Economic assessment
- Technology readiness assessment

#### **Desirable Goals**

- Raising awareness of the use of digitalisation and smart technologies for emission reduction
- Recommendations for developments of regulatory frameworks
- Validating the technical or economic feasibility of GHG reduction technologies
- Development of testbeds and demonstrators

### **Theme 3: Building resilience in maritime transportation**

**(Max. USD 60,000)**

**Possible key concepts to be structured and explored within the theme, not limited to the following:**

- Maritime Autonomous Surface Ships
- Cyber Security
- Responses to climate change
- Extreme operating environments, e.g. Polar shipping
- Logistics and supply chain management
- Smart port infrastructure
- Smart navigation

#### **Desirable Goals**

- Reducing vulnerabilities in maritime transport systems
- Building capacity to strengthen readiness for emerging challenges
- Fostering safety, security and risk management strategies for future readiness
- Equipping maritime professionals with skills for resilience

### **Theme 4: Optional theme**

**(Max. USD 60,000)**

Applicants are invited to propose their own research theme beyond Themes 1 – 3.

#### **Possible key concepts**

To be structured by the applicants as appropriate

#### **Desirable goals**

To be set by the applicants as appropriate

#### **Note:**

- Each IAMU member university can submit one (1) proposal for each theme.
- Form 1-A is for all themes.
- Refer to the criteria in the Evaluation Form for All Academic Staff, which will help you to prepare the application.

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