Autonomous Operation of the MOSES Innovative Feeder Vessel

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Presentation Outline

• Introduction
• MARIN Scope in MOSES Project
• Autonomous Operation of the Innovative Feeder Vessel
  • T3.2 - Time-domain simulations
  • T7.3 - Basin scale model tests
• Pilot Demonstration Visitors Day
  • Program
  • Photographs and video

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MARIN Scope of Work in MOSES

- **T3.1 - Innovative Container Feeder Design**
  - Dimensions, general arrangement, hull shape
  - Energy concepts, round-trip logistics

- **T3.2 - Autonomous Operation**
  - Vehicle control, autonomy
  - Time-domain simulations (Mykonos-Piraeus)

- **T7.3 - Pilot Demonstration**
  - Scale model of the Feeder Vessel
  - Demonstration of the autonomous operation
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Task 3.2 - Autonomy Implementation and Testing

1. Time-domain Simulation
Task 7.3 - Autonomy Basin Demonstration

2. Split Simulation Model
Task 7.3 - Autonomy Basin Demonstration

3. Add Operator GUI
Task 7.3 - Autonomy Basin Demonstration

4. Basin Demonstration
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Pilot Demonstration Visitors Day - Summary

• Date: 14 September 2023

• Program:
  • Presentations (morning)
  • Lunch
  • Basin demonstration (afternoon)
  • Project information stands (afternoon)
  • Drinks

• Invitations: ~ 130 people
  • MOSES partners 4 + 11
  • Dutch maritime industry, research institutes and academia 13
Technical Presentations
Information Stand (Zero Emission Lab)
Information Stand (Wind Assisted Propulsion)
Information Stand (mAUV)
Demonstration - Seakeeping and Manoeuvring Basin (SMB)

L x B x D = 170 x 40 x 5 m
Main carriage (X) + sub-carriage (Y)
Maximum speed 6 m/s
Wave flaps on 2 sides (331)
Beaches on opposite sides
Multi-directional waves (H_s = 0.45 m)
Free sailing tests
Captive tests
Rotating arm tests
Pilot Demonstration - Full Round-trip
Pilot Demonstration - Docking
Slido research survey

Join at Slido.com
#3052 672

https://app.sli.do/event/kJL1vT1CxoaNKvQV777Aro
Thank You! Any Questions?

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