

AGENDA OF CORE MEETING OF DEWATRA COST ACTION

UNIVERSITY OF NAPLES FEDERICO II

Department of Industrial Engineering, Via Claudio 21, 80 125 Napoli

Edificio X, 2nd floor,

Thursday the 5 th of June	
9 – 10:30	WG2 meeting in Aula Master Mundus https://videoconf-colibri.zoom.us/meeting/register/P-GmfjkWTOKOb7vfBcR1Jg
	9:00 – 9:10 <i>Kostas Belibassakis: “Brief presentation of WG2 - tasks and progress”</i>
	9:10 – 9:40 <i>George Dafermos: “Hydrodynamic ship hull and propeller optimization studies: methods, tools and applications”</i>
	9:40 – 10:10 <i>Deniz Akturk & Ermina Begovic: “CFD methods for ship hull hydrodynamics - main aspects of the numerical methods and implementation”</i>
	10:10 – 10:30 <i>George Papadakis: “The CFD method MapFlow with application to ship hull hydrodynamics”</i>
	WG5 meeting in Library - Meeting Room https://videoconf-colibri.zoom.us/meeting/register/UoLd3cLtRsilaEt7_7FwOQ
	09.00-09.15 <i>N. Vladimir & H. Xu: “WG5 management and ongoing work, the report”</i>

	09.15-09.30 <i>G. Manavgat: "General about decision support systems"</i> 09.30-09.45 <i>F. Santos: "Components of energy efficient decision support system"</i> 09.45-10.10 Technical discussions on D.5.1
10:30 – 11:00	COFFEE BREAK
11:00 – 12:30	WG2 meeting in Aula Master Mundus https://videoconf-colibri.zoom.us/meeting/register/P-GmfjkWTKOb7vfBcR1Jg 11:00-11:20 <i>Kostas Belibassakis: Dynamical models for ship power performance prediction in waves</i> 11:20-11:50 <i>Sandita Pacurararu: Numerical simulations for hydrodynamic solutions and alternatives in the scope of reducing or preventing the GHG emissions.</i> 11:50-12:10 <i>George Papadakis: Studies to reduce ship resistance and improve performance by ALS, WASP</i> 12:10-12:30 <i>Kostas Belibassakis: A Novel Energy Saving Device for Ferry Ships in Waves based on Flapping Thrusters</i>
	WG5 meeting in Library - Meeting Room https://videoconf-colibri.zoom.us/meeting/register/UoLd3cLtRsilaEt7_7FwOQ 10.40-10.55 <i>G. Panagakos: "Core functions of energy efficient decision support system"</i>

	10.55-11.10 <i>M. Valčić:</i> Review of existing systems – Case studies and demonstrated benefits 11.10-11.25 <i>C. Kontovas:</i> Future outlook 11.25-12.00 Technical discussions on D.5.1 (35 min) 12.00-12.30 Discussions on other WG5 activities – harmonization with other WGs, publications, workshops, etc. Summary, conclusions, agreements, next steps (Moderated by Nikola Vladimir & Haitong Xu)
12:30 – 14:00	LUNCH BREAK
14:00 – 15:30	WG3 meeting in Aula Master Mundus https://videoconf-colibri.zoom.us/meeting/register/Wz6OwNJDRzWEJadSmh9vdw 14:00–14:30 <i>Elias Yfantis:</i> WG3 Action Strategy: Welcome, Introduction, Agenda 14:30–14:50 <i>Metehan Atay</i> (online): Carbon Emission Policies 14:50–15:30 <i>Peng Wu</i> (online): Intelligent Energy Management for Plug-In Hybrid Fuel Cell and Battery Ships Using Reinforcement Learning
	WG4 meeting in Library - Meeting Room https://videoconf-colibri.zoom.us/meeting/register/Dn8_1cxeQ0CZzOTFmgDrQg

	14:00-14:10 <i>Çağlar Karatuğ & Jonas Ringsberg (Online):</i> WG4 Management and ongoing work, the report 14:10-14:40 Subgroup 1 (30 min): Intro by SG leader <i>Maciej Reichel</i> - <i>Chris Greenhough:</i> “Wind Assistance in the Age of Transition” - <i>Mehmet Mustafa Çelik & Kemal Koca:</i> “Numerical simulation on energy efficiency of a ship equipped with NACA 4412 airfoil shaped rotor sail” 14:40-15:10 Subgroup 2 (30 min): Intro by SG leader <i>Tatijana Dlabac</i> - <i>Ilija Knežević & Nemanja Pudar:</i> “Real-Time Parameter Identification and Energy Management Optimization for Shipboard Hybrid PV-Battery Systems through Typhoon HIL-Based Simulation - <i>Prof. PhD Milutin P. Petronijevic:</i> “Hardware-in-the-Loop Framework for Rapid Prototyping of Microgrid Control Systems” 15:10-15:40 Subgroup 3 (30 min): Intro by SG leader <i>Tibor Cinkler</i> - <i>Ahmet Aksoz:</i> “AI-Enhanced Energy Management Systems for Integrating Renewable Sources in Shipboard Microgrids” - <i>Luis Alfonso Díaz-Secades:</i> “Unlocking Waste Heat Recovery as a Catalyst for Ship Energy Efficiency”
15:30 – 16:00	COFFEE BREAK
16:00 – 17:30	WG3 meeting in Aula Master Mundus https://videoconf-colibri.zoom.us/meeting/register/Wz6OwNJDRzWEJadSmh9vdw 16:00–16:15 <i>Elias Yfantis:</i> WG3 Action Strategy (Part 2) 16:15–16:45 <i>Ramazan Sener:</i> WG3 Action Strategy (Part 3) 16:45–17:30 Discussion/Decisions

	WG4 meeting in Library - Meeting Room https://videoconf-colibri.zoom.us/meeting/register/Dn8_1cxeQ0CZzOTFmgDrQg 16:10-16:40 Subgroup 4 (30 min): Intro by SG leader <i>Alistair Greig</i> (Supported by Çağlar Karatuğ if Alistair Greig cannot be online) - <i>Ramazan Sener</i>: "Nanoparticle-Enhanced Biodiesel for Marine CI Engines: Advancing Performance and Emission" - <i>Gökçe Manavgat & Ayhan Demirci</i>: "Decarbonizing Port Operations: Assessing Alternative Fuels for Ships in Pre-Berthing Phases" 16:40-17:10 Subgroup 5 (30 min): Intro by SG leader <i>Maja Krcum</i> - <i>Vera Kapetanović & Jelena Žanic Mikuličić</i>: "Application of Digital Twins in the Maritime Industry: Standardization, Challenges, and Perspectives" - <i>Aitana Sánchez-González, Luis Alfonso Díaz-Secades, Levent Bilgili & Goran Dominioni</i>: "Maritime Decarbonisation: Safety starts with education" 17:10-17:30 Summary, conclusion, agreements, next steps: <i>Modarated by Çağlar Karatuğ & Jonas Ringsberg (Online)</i>
--	--

Friday the 6 th of June	
8:30 – 10:30	WG1 meeting in Aula Master Mundus https://videoconf-colibri.zoom.us/meeting/register/wCJklwdYTY6MRtSnQLfAA 8:30 – 8:50 “CO2 Emissions modelling: Historical Developments and Current Challenges” - <i>Dr Christos Kontovas – Liverpool John Moores University, UK</i> 8:50 – 9:10 “AIS-Based Assessment of Maritime Emissions: Evaluating CO₂, NO_x, and SO_x Contributions to Air Pollution” - <i>Prof. Merah Aydinalp Köksal – Hacettepe Üniversitesi, Turkey</i> 9:10 – 9:30 “Neural network approach for predicting ship speed and fuel consumption” - <i>Dr. Lucia Moreira – University of Lisbon, Portugal</i> 9:30 – 9:50 “Hybrid Ship Electrification: Evaluation of Fuel Cell Technologies with Hydrogen Bunkering and Production Scenarios in Bulk Carriers” - <i>Prof. Jin Wang – Liverpool John Moores University, UK</i> 9:50 – 10:10 “Ship Emissions Predictions and Validation” - <i>Prof. Selma Ergin – Istanbul Technical University, Turkey</i> 10:10 – 10:30 “Risk-based Hybrid Ship Design Accounting for Carbon Footprint” - <i>Prof. Yordan. Garbatov – University of Lisbon, Portugal</i>
	10:30 – 11:00 COFFEE BREAK
	11:00 – 12:30 Core Group Meeting: Discussion-Conclusions of WG activities, decisions and plans.
	12:30 – 14:00 LUNCH BREAK