I have the pleasure of welcoming you to participate in the 11th International Maritime Association of the Mediterranean Congress in Lisbon, Portugal, which will be held at Instituto Superior Técnico between 25 and 30 September 2005, dealing with many aspects of Maritime Transportation and Exploitation of Ocean and Coastal Resources.

The International Congress of International Maritime Association of the Mediterranean has nearly 27-year history since the first Congress of the International Maritime Association of East Mediterranean (IMAEM) held in Istanbul in 1978, and was progressively enlarged to other countries neighbouring the Mediterranean.

In 1990, the name of the association was changed to International Maritime Association of the Mediterranean (IMAM) and it has continued being an association of academic and professional institutions that aim to contribute to the efficient, economic and safe operation of ships, offshore and coastal structures and port infrastructures in order to promote the advancement of the use of the seas and coastal waters for a sustainable development of the societies.

While previous Congresses were more concerned with ships and maritime transportation, the 2005 edition of the IMAM Conference, which has been organised by the Unit of Marine and Technology Engineering of IST, has widened the scope by including various topics related with the exploitation of ocean and coastal resources, an area that is believed to have become increasingly more important.

The technical programme consists of more than 200 papers dealing with aspects of hydrodynamics, ship structures, machinery and propulsion systems, control systems, vessel design, shipyard technology maintenance and repair, marine environment, fisheries and aquaculture, maritime transportation and port operation, coastal and offshore development, safety and reliability, and design for the protection of the environment.

I believe that we have brought together all the main ingredients for a successful and worthwhile Conference and I hope you all enjoy it!

Carlos Guedes Soares
IMAM 2005 Congress Chairman
### Registration

**IST Congress Centre, IST**

**Sunday, 25th September - 16h00 to 18h30**

**Monday, 26th September - from 08h30 onwards**

### Opening Session

**Monday, 26th September - 09h30 to 10h30**

### Keynote Lectures

**Monday, 26th September**

**Keynote Lecture 1**

*Niko Wijnolst, The Innovation Challenge in Global Shipping (11h00 to 11h40)*

**Keynote Lecture 2**

*Michael vom Baur, A New Vision for the European Maritime Industry - View from the Waterborne Technology Platform (11h40 to 12h20)*

### Technical Visits

Three technical visits are planned for Friday, 30th September, as follows:

A. Port of Sines and the LISNAVE Shipyard
B. Port of Leixões and the VIANAYARD
C. Port of Sines and the Port of Lisbon

Please note there are a limited number of places and a policy of 'first come, first served' will be applied. Forms to register for Technical Visits can be downloaded from the web page. However, visits will only be undertaken if there are a minimum number of interested persons. Information on the times and departure points will be available at the Conference.

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**Sessions Programme**

[Image of a detailed schedule of sessions from Monday, 26th September to Thursday, 29th September, with various sections and times listed.]
Monday, 26th September, 2005

Session Schedule: 14:00 – 15:30

**Session 1A:** Hydrodynamics of fast ships  
**Session Chairs:** P. Yannoulis and M. Gaafary

- Caprio, F., Migali, A., and Pens, C., Staggered catamarans: experimental data and feasibility study for environment friendly service
- Zotti, I., Hydrodynamic experiments on a catamaran hull with a central bulb, considering its resistance and seakeeping performances
- Dabsi, N., Chagdiali, M., and Mem, A., Hydrodynamic coefficients and forces on catamarans in shallow water
- Xie, N. and Vassalos, D., A study of the effect of steady flow on unsteady motion of high-speed craft

**Session 2A:** Shipyard technology  
**Session Chairs:** M. vom Baur and F. Spranger

- Fafandjel, N., Hadjina, M., Matulja, T., and Simone, V., Using throughput in approaching shipyard production process design
- Kralj, S., Kozuh, Z., and Garasi, I., Development of underwater technology for maintenance of off-shore objects
- Kvasnitskyy, V., Kvasnytsky, V., Egorov, G., Goloborod’ko, Z., and Solonichenko, Y., Production technology peculiarities of ships body components from sheet products
- Zapatic, T., Kodvanj, J., and Ljubenkov, B., Photogrammetry in the shipbuilding production process

**Session 3A:** Extreme and freak waves  
**Session Chairs:** A. P. Silva and Z. Cherneva

- Kuznetsov, S., Saprykina, I., Kosyan, K., and Pushkarev, O., Formation of extreme storm waves on Black Sea
- Sušak, W. and Paprota, M., Analysis of wave parameters in extreme wave records
- Cosme, S. and Mónica, P., Does linear wave theory support freak waves?
- Lupatoukhin, L., Boukhansovsky, A., and Guedes Soares, C., Hindcasting and forecasting the probability of freak wave occurrence

**Session 4A:** Ports  
**Session Chairs:** N. Wijnolst and J. Ventura de Sousa

- Reis Cunha, A., Sustainable development of the port of Lisbon
- Botter, R., Siqueira, A. Castro Neto, L., and Cecíliano, W., Economic operational study of the stockyard and shipment of UBU port
- Antão, P., Guedes Soares, C., and Gerretsen, A., Benchmarking and analysis of European ports and terminals
- Psarakis, H., An analysis of the European Union ports policy

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Monday, 26th September, 2005

Session Schedule: 16:00 – 17:30

**Session 1B:** Multibody hydrodynamics  
**Session Chairs:** R. Kirshev and G. Claus

- Arai, M., Tsukioda, Y., Tozawa, S., and Yamane, K., Numerical study of the effects of hull shape and launching conditions on the behaviours of a free-fall lifeboat during water entry
- Claus, G. and Jacobsen, K., Multibody systems in waves - impact of hydrodynamic coupling on motions
- Bruzzone, D. and Gancia, P., Weakly non-linear wave induced loads in time domain for high-speed multihull vessels
- Mavarakos, S., Hydrodynamic characteristics of two concentric surface piercing floating circular cylinders

**Session 2B:** Shipyard technology  
**Session Chairs:** T. Jastrzębski and F. S. Fonseca

- Fafandjel, N., Pavleic, D., and Hadjina, M., Simulation for criteria evaluation in shipbuilding production process layout optimization
- Ivankovicz, R., Metchkow, B., Gracyk, T., and Jastrzębski, T., Some aspects of complex production systems modelling
- Mionovic, M., Benen, R., and Vitasevic, E., The CAD system and its integration into the shipyard’s integral IT system
- Sinha, A., Ward, K., and Bruce, G., Mapping the information flow through shiprepair activities

**Session 3B:** Spatial distribution of waves  
**Session Chairs:** L. Loupatoukhin and L. Gil

- Barbaro, G. and Martino, M. C., On the levels of uncertainty in the estimation of extreme values
- Kuznetsov, S., Saprykina, I., and Yurezanskaya, Y., Time and spatial variability of parameters of individual waves in a coastal zone
- Guedes Soares, C. and Pacheco, M. B., GIS based system to assess sea conditions along specified ship routes
- Hinnenthal, J. and Saetra, O., Robust Pareto - Optimal routing of ships utilizing ensemble weather forecasts

**Session 4B:** Terminal operations  
**Session Chairs:** N. Wijnolst and D. L. Faria

- Marchal, J. and Zhang, Z., Simulation of container terminal’s operations
- Sá Peixoto, G. and Botter, R., Model for selecting container yard equipment and stacking formation strategies in container terminals
- D. L. Faria, Presentation of Port of Sines
Sessions Programme

Tuesday, 27th September, 2005

Session Schedule: 9:00 - 10:30

**Room 02.1**

**Session 1C:**
CFD applications

**Session Chairs:**
O. Goren and G. Claus

Claus, G. and Heisen, W., CFD analysis on the flying shape of modern yacht sails

**Session 2C:**
Offshore pipelines and wave energy

**Session Chairs:**
N. Fanfandjel and N. Fonseca

Matulea, I., Strat, I., and Rusu, E., Pipeline installed by free immersion in the Black Sea offshore areas

**Session 3C:**
Wave spectra

**Session Chairs:**
K. Belibassakis and L. Gil

Nielsen, U., Estimation of directional wave spectra from ship responses

**Room 02.2**

**Session 1D:**
Wave resistance

**Session Chairs:**
L. Perez Rojas and P. Yannoulis

Danisman, D. and Gören, Ö., Nonlinear wave resistance computations as a design tool in hull form improvement studies

Degiuli, N., Werner, A., and Stasic, T., Some parameters influencing the accuracy of the wave pattern resistance determination

Tzabiras, G. and Garofallidis, D., Computation of resistance of a series-60, cb=0.6 model under a measured free-surface

Kara, F., Time domain computation of the wave making resistance of ships

**Session 2D:**
Structural design

**Session Chairs:**
V. Kozlijakov and T. Jastrzebski

Sutherland, L. and Guedes Soares, C., Impact on single-skin marine composites

Chirica, L., Gavrilescu, I., Boazu, D., and Beznea, E. F., Optimum design of composite ship panels

Ziha, K., Goles, S., Radica, A., and Maksimovic, S., Effects of hull deformations on ship displacement

Bruce, G. and Lightfoot, M., The use of artificial neural networks to reduce welding distortion

**Session 3D:**
Wave modeling

**Session Chairs:**
A. Sánchez-Arcilla and M. Lahoz

Rusu, E., Ventura Soares, C., and Rusu, L., Computational strategies and visualization techniques for the wave modeling in the Portuguese nearshore

Santos, J., Fortes, C., Pinheiro, L., and Neves, M., SOPRO – A software package for wave characteristics in ports


Conley, D. C. and Rusu, E., Tests of wave shoaling and surf models in a partially enclosed basin

**Session 4D:**
Maritime transport

**Session Chairs:**
E. Martins and J. Ventura de Sousa

Škiljaica, V. and Backalic, T., Navigation characteristics of the Danube and its influence on the main dimensions of the river-sea ships

Romero, J., Role of LNG in the Mediterranean region. New fleet required

Lyridis, D., Zacharioudakis, P., and Pavlidis, T., A Dynamic regional forecast of tanker freight rates with the usage of analytical techniques

Kubicki, J., The Baltic eurowregion strategies on development of short sea shipping

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### Session 1E: Fatigue assessment
**Session Chairs:** N. Bobanac and L. Wilczynski  
Ro, D., Kang, H., Kong, T., and Kang, M., Numerical calculation of ship's propulsion mechanism of Weis-Fogh-Type by Vortex method  
Bobanac, N., Sambolek, M., Radić, S., and Beatovic, I., Cost effective full scale observation and recording of propeller blade cavitation  
Sampson, R., Allar, M., Mantouvalos, A., Danisman, B., and Gören, Ö. A practical power prediction of an asymmetric catamaran hull form  
Sampaio, C., Russo, A., Nishimoto, N., and Hirata, K., Full-scale resistance study and analysis of a patrol boat at three different hull/propeller roughness conditions

### Session 2E: Fatigue assessment
**Session Chairs:** V. Kozljakov and V. Zanic  
Bacicchi, G., Biot, M., Maestro, M., Marino, A., and Toschetti, A., Fatigue assessment of block joints on passenger ships and a proposal for innovative technical solutions  
Garbatov, Y., Santos, J. M., and Guedes Soares, C., Effect of truck induced load on welded structural joints subjected to fatigue  
Rudan, S. and Senjanovic, I., Fatigue strength assessment of a weld connection misalignment in LPG bilobe cargo tanks  
Fricke, W., Kahl, A., and Paetzold, H., Fatigue strength assessment of fillet welds predominantly subjected to local bending

### Session 3E: Wave hindcast and forecast
**Session Chairs:** E. Rusu and L. Loupatoukhin  
Cateura, J., Sanchez-Arcilla, A., and Bolanos, R., High resolution wind modelling. Mediterranean extremes  
Rusu, I., Pilar, P., and Guedes Soares, C., Reanalysis of the wave conditions in the approaches to the Portuguese port of Sines  
Laboz, M. and Carretero Albiach, J. A wave forecasting system developed for the Spanish harbors  
Trusca, C. V., Reliability of SWAN model simulations for the Black Sea Romanian coast

### Session 4E: Ship design
**Session Chairs:** K. Lapa and M. Neves  
Romero, J. and Mosquera, I., Evolution of LNG carrier design  
Coppola, T., Paciolla, A., and Quaranza, F., On the problem of the machinery choice and hull weight assessment for the design of high-speed vessels  
Egorov, G., Design of the modern cargo ships of restricted navigation area to Mediterranean and Black sea region  

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### Session 1F: Ship manoeuvring
**Session Chairs:** L. Wilczynski and S. Sutulo  
Ayaz, Z., Turan, O., and Vassalos, D., Numerical assessment of operational behaviour of high-speed, POD-driven large ships  
Kayano, J., Haraguchi, T., Tsukada, Y., and Kano, T., On the ship manoeuvrability of tandem arrangement CRP. Pod propulsion system  
Kohtzsik, I. and Nowicki, J., Maneuvering characteristics of full-bodied ships with POD propulsion  
Simeone, C., A general expression of the internal friction in the boundary layer

### Session 2F: Finite element analysis
**Session Chairs:** W. Fricke and J. M. Gordo  
Dimache, A., Olaru, D., Modiga, M., and Stoicescu, L., Some considerations on the structural modelling technique of double wall structures  
Senjanovic, I., Rudan, S., and Ljustina, A. M., Reinforcement of imperfect bilobe cargo tanks in liquefied gas carriers  
Garbatov, Y., Tomasevic, S., and Guedes Soares, C., Fatigue damage assessment of a newly built FPSO hull  
Zanic, V., Andric, J., and Prebeg, P., Superstructure deck effectiveness of a generic ship types - a concept design methodology

### Session 3F: Wave propagation and visualization
**Session Chairs:** J. A. Carmo and A. P. Silva  
Chadgali, M. and Mordane, S., A parabolic equation based on a rational quadratic approximation for surface gravity wave propagation followed in curvilinear orthogonal  
Belibassakis, K., Propagation of water waves through shearing currents in general bathymetry  
Russo, A., Sampaio, C. P., and Taniguchi, D., Wave modeling for virtual environments  
Varela, J. M. and Guedes Soares, C., Survey of techniques for real-time visualization of the ocean surface

### Session 4F: Ship design
**Session Chairs:** H. Leheha and L. Perez Rojas  
Kapsenberg, G., Finding the hull form for given seakeeping characteristics  
Alkan, A., Trincas, G., and Naberloj, R., Seakeeping metamodel of fast RO-RO ships: RSM or ANN technique?  
Kolev, P., Damyanliev, S., and Georgiev, P., Optimization and robust investigations in ship design  
Barone, M., Begovic, E., Bertorello, C., and Stella, M., Preference communication in multiattribute procedures for optimised ship design  

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### Wednesday, 28th September, 2005

#### Session 1G:
**Ship manoeuvring**
- **Session Chairs:** L. Kobylinski and O. Goren

- **Abstract:** Abramowicz-Gerigk, T., Investigations on standards for ship manoeuvring performance at slow speed in constrained space

- **Abstract:** Artyuşëk, J., Simulation of a spring line application to enhance berthing/unberthing manoeuvres

- **Abstract:** Sutulo, S. and Guedes Soares, C., An object-oriented manoeuvring simulation code for surface displacement ships

- **Abstract:** Mosaad, M., Gaafary, M., and Amin, I., Energy saving and dynamic stability of planning hulls due to hydrodynamic control of trim angles

#### Session 2G:
**Ship vibration**
- **Session Chairs:** I. Senjanovic and Y. Garbatov

- **Abstract:** Xing, J. T., Numerical methods solving dynamic finite element equations

- **Abstract:** Chirica, I., Giuglea, V., Dumitră, O., and Penci, P., Some considerations on global ship vibration analysis

- **Abstract:** Ferrari, A. and Rizzuto, E., Modal behaviour of full-scale deck panel with anti-noise treatments

- **Abstract:** Xiong, Y., Xing, J., and Price, W., Power flow analysis and applications for ship vibration and control

#### Session 3G:
**Currents waves in the coast**
- **Session Chairs:** M. Chagdali and P. Sames and T. Neto

- **Abstract:** Gentile, R. and Rebaudengo Landi, L., Influence of the distribution of the random wave heights on the longshore current velocity

- **Abstract:** Makarynskyy, O., Makarynska, D., Rusu, E., and Gavrilov, A., Filling gaps in wave records with artificial neural networks

- **Abstract:** Zaro, M., Bouannrani, M., Gourchane, M., and Chagdali, L., Modelling of the effect of the continental shelf on the marine circulation

- **Abstract:** Makaoui, A., Orbi, A., Agouzouk, A., Bouannrani, M., L., and Talbi, M., Impact of the upwelling on the sedimentology of the continental shelf of the Agadir Zone, Morocco

- **Abstract:** Vazconcellos, J. M., FPSO – BOX SHAPE: A proposed tankers layout

- **Abstract:** Alho, A. and Prado, F., Analysis of cargo offloading operations

- **Abstract:** Costa, A., Masetti, I., Cueva, M., Nishimoto, K., Machado, G., and Corte, A., Development of a Mono-column type unit harsh environmental

- **Abstract:** Bezinsëvic, D., Design of an AFRAMAX tanker Baltic ice class 1A according to new Swedish – Finnish rules 2002 and model testing results – Basic hydrodynamics’ problems

#### Session 4H:
**Oil spills**
- **Session Chairs:** P. Kolev and H. Leheta

- **Abstract:** Jastrzebski, T. and Sekulski, Z., Application of genetic algorithm to structural optimisation of high speed craft

- **Abstract:** Coppola, T. and Pensa, C., First evaluation of the design data for fast ferries

- **Abstract:** Santos, T. and Guedes Soares, C., Multi-objective optimisation of fast ferry watertight subdivision

- **Abstract:** Grubisic, I. and Munic, I., Multi-attribute design optimization of Adriatic catamaran ferry

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#### Session 1I: Risk based design
**Session Chairs:** E. Rizzuto and A. P. Teixeira

Christensen, H., Hensel, W., Lucas, A. P., Sames, P., Skjong, R., Strang, T., and Vassalos, D., SAFEDOR - risk - based ship design, operation and regulation

Santos, T. and Guedes Soares, C., Risk-based approach to the design of passenger Ro-Ro ships regarding damaged stability

Vassalos, D., Konovessis, D., and Guarin, L., Fundamental concepts of risk-based ship design

Trbojevic, V., Risk criteria for ports and ships

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#### Session 1J: Large ship motions and loads in waves
**Session Chairs:** S. Malenica and M. Arai

Fonseca, N., Guedes Soares, C., and Marón, A., Experimental and numerical hydrodynamic coefficients of a containership in large amplitude heaving and pitching

Inoue, Y., Golam Zakaria, N., and Nakai, R., Parametric study on relative wave height of ships in the rough sea

Kishev, R., Rakitin, V., Chaakov, V., and Maron, A., Experimental verification of an advanced deck wetness prediction method

Zamarin, A., Ship load model on large amplitude waves

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### Wednesday, 28th September, 2005

#### Session 2J: Structural reliability
**Session Chairs:** Y. Garbatov and E. Rizzuto

Kozyakov, V., Davydov, I., and Stavytsky, A., Specific features of the reliability maintenance of lashings of the deck heavy-weight cargos and bulk cargos in flexible containers.

Teixeira, A. P., Guedes Soares, C., and Wang, G., Reliability based approach to determine the design loads for the remaining lifetime of ship hulls.


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### Wednesday, 28th September, 2005

#### Session 3J: Coastal studies
**Session Chairs:** Z. Cherneva and K. Belibassakis

Mouakkir, L., Mordane, S., Chagdai, M., and Smaoui, H., Modelling the effect of wave-current interaction on the sediment transport

Penchev, V., Savov, B., and Theocharis, Z., A particle tracking model of spreading of fine sand sediments

Schreck Reis, C., Freitas, H., and Antunes do Carmo, J., Leirinha sand dunes: A case study on coastal protection

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### Wednesday, 28th September, 2005

#### Session 4J: Ship machinery
**Session Chairs:** P. Zhou and V. G. Brito

Balsamo, F. and Quaranta, F., Low emission propulsive plants for urban and coastal transportation

Benvenuto, G., Figari, M., and Rizzo, C., Effects of fuel quality on two strokes slow speed diesel engines

Domingo, J. and Hakkinen, P., Investigation in WHR-boiler soot fires

Ergin, S., Flow characteristics of air-caps for tank ventilation in ships

Kawamani, Y., Kudo, T., and Kawashima, H., Contra-rotating podded propulsor and its full scale model tests.
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<td>Vikestad, K. and Lien, E., Bending stiffness of a clamps-connected 2-rings PE fish cage collar</td>
<td>Gaafary, M., Hydrodynamics Adaptation of Pre-Swirl Stators to Propellers of High Speed Marine Crafts</td>
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**Thursday, 29th September, 2005**

Session Schedule: 9:00 - 10:30

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<td>Berstad, A. J. and Tonsrud, H., Response from current and regular/irregular waves on a typical polyethylene fish farm</td>
<td>Koroman, V., Linaric, D., Milos, P., and Ruzojcic, B., Permanent magnet electric motors based ship propulsion system</td>
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<td>Fukuchi, N. and Shinoda, T., A safety assessment for marine accidents considering mental stress based on measuring heart rate variability</td>
<td>Gasha, L., Evaluation of nonlinear behavior for a typical stiffened plate panel to lateral load in ship structures</td>
<td>Lee, C., Kim, H., Lee, G., Koo, K., Choe, M., Cha, B., and Jeong, S., Computation modeling of the moored flexible structures</td>
<td>Tarek, W., Machinery function factors triggering off hazards for operators of ship power plants</td>
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### Thursday, 29th September, 2005

#### Session Schedule: 14:00 - 15:30

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| **Session 1M:** Maritime safety and environmental protection  
**Session Chairs:** B. Leira and J. V. Gouveia  
T. Trbojevic, V., Energising safety management in ports  
G. Gerigk, M., Challenges of modern assessment of safety of ships in critical conditions. Option for preliminary design  
N. Numano, M., Kano, T., Kawashima, H., and Takimoto, T., System integration for safety and effective operation of the Super-Eco ship  
S. Shama, M., Life cycle assessment of ships | **Session 2M:** MARSTRUCT  
**Ultimate Strength Session Chairs:** P. Varsta and J. M. Gordo  
Z. Sekulski, F., Formulations to assess the ultimate strength of structures (state-of-the-art)  
R. M. Luis, M., Ultimate Strength Analysis of the Hull girder of Ropax Vessel  
A. Klanac, A., Internal Mechanics on Collision and Grounding of Ships - Benchmark study  
D. Dimas, D., Experimental Study on Transverse Impact on Clamped Beams | **Session 3M:** Fishing vessels and operations  
**Session Chairs:** M. Neves and A. Oliveira  
F. Pérez-Aribas, F., Zamora, R., Pérez-Rojas, I., and Freiria, J., A quick estimation of seakeeping characteristics of fishing vessels  
K. Lapa, K. N. and Ibrahimii, K. I., The influence of the Albanian sea winds on fishing-boat stability of FV 2KP-400 type  
H. Lebeta, H., A multi-criteria stem trawler selection model using the analytic hierarchy process  
G. Boccadamo, G. and Scamardella, A., Safety of fishermen: risk factor analysis and the influence of vessel nautical properties | **Session 4M:** Ship control  
**Session Chairs:** S. Mandzuka and A. Pascoal  
L. Morawski, L., Pomirski, J., and Rak, A., Research environment for motion control algorithms testing of scale ship models on a lake  
L. Moreira, L. and Guedes Soares, C., Design of robust steering autopilot for ships  
A. Pascoal, R., Rodrigues, B., and Guedes Soares, C., Roll-Yaw regulation using stabilizing fins and rudder in a disturbance observer based compensator scheme  
O. Mosleh, M. and El-Kilani, H., Isolation of the slamming-induced local vibration using feedback control |

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**Session Chairs:** K. Kollowrocki and M. B. Pacheco  
A. Weintrit, A., Modification of the chart presented in ECDIS  
Y. Vorobyov, Y. and Kosoy, M., The navigational width for a vessel going on the trajectory in shallow water under wind and wave  
A. Weintrit, A., Presentation of safety contours on electronic navigational charts  
L. Gueme, L. and Smalko, Z., Selected problems and methods of navigational risk assessment | **Session 2N:** MARSTRUCT  
**Metal Structures Session Chairs:** V. Papazoglou and A. Vredeveldt  
Z. Sekulski, F., Review of manufacturing technologies for metallic structures and problems related to introduction of innovative structural components  
W. Fricke, W., Fatigue and Fracture Tests  
A. Ulfvarson, A., Coating anti-corrosion protection systems  
Y. Garbatov, Y., Models of corrosion, degradation and inspection  
A. Vredeveldt, A., Experimental Assessments, Ship Structural Characteristics | **Session 3N:** Fishing technology  
**Session Chairs:** D. Marichal and B. O’Neill  
H. Ishizaki, M., Inoue, Y., Habano, A., Ebata, K., Hiraishi, T., and Kumazawa, T., Improvement of the “Soft Door”, a newly developed mouth opening device for trawls considering hydraulic characteristics  
A. Barone, M., Vredeveldt, A., Assessment of safety of ships in critical conditions. Option for preliminary design  
F. Lee, C., Lee, M., Lee, G., Koo, K., and Choe, M., Design and performance of a software based fishing simulator | **Session 4N:** Ship control  
**Session Chairs:** T. Perez and M. Figari  
Y. Alarçin, F., Fuzzy logic and model reference adaptive control of ship roll stabilisation using fin actuator  
S. Mandzuka, S., Floating vessels control - mathematical modeling of the waves  
L. Moreira, L. and Guedes Soares, C., Analysis of recursive neutral networks performance trained with noisy manoeuvring data  
M. Mosleh, M. and El-Kilani, H., Isolation of the slamming-induced local vibration using feedback control |

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**Guidelines to Authors and Chairmen**

- **Presentation and Discussion of Papers:** Each presentation has been allocated 20 minutes with 2 additional minutes for discussion. Authors, who have not provided their presentations by e-mail in advance, should hand them to the Secretariat at the Congress venue on the day before the presentation is scheduled.
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Sunday, 25th September
Welcome Reception (19h00 – 21h00)

Wednesday, 28th September
Conference Dinner (20h00 – ‘til late)

Friday, 30th September
Dinner and Show at Casino Estoril (20h00 – ‘til late)
(Optional. Not included in registration package)

IMAM 2005 - Accompanying Persons Programme

Sunday, 25th September
Welcome Reception (19h00 – 21h00)

Monday, 26th September
Visit to Estoril and Cascais (14h30 – 18h00)

Tuesday, 27th September
Full day Tour of Lisbon (10h00 – 18h00)

Wednesday, 28th September
Conference Dinner (20h00 – ‘til late)

Thursday, 29th September
Visit to Sintra (14h30 – 18h00)

Please note only approximate times are given. Exact times will be given on registration.

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