

UNIVERSITY OF THE AEGEAN
Department of Shipping, Trade and Transport



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Preface

We want to welcome you to the first issue of the *Aegean Working Papers*, an international and interdisciplinary journal the purpose of which is to present manuscripts that are concerned with case studies, empirical and descriptive policy making and prescriptive works that are linked to actual problems relevant to shipping, trade and transport. The journal encourages also submission of works in the following areas: business and managerial economics, financial management, investments, banking, international studies, long range planning, forecasting and strategic planning, organization studies, systems engineering, technology transfer, conflict resolution and geo-strategic studies. The journal welcomes all points of view and perspectives and encourages original research or applied study in any of the several areas listed above.

All manuscripts of this issue were processed by at least one expert reviewer.

The first paper, by A.B. Alexopoulos and G. Dounias, "An assessment of vessel-source oil pollution incidents in the Mediterranean Sea using inductive machine learning methodologies", analyses 295 cases of ship incidents that caused or likely to cause oil pollution in the Mediterranean Sea during the period 1981-2000. The inductive learning methodology is applied for producing automated domain-dependent expert knowledge by mining relative data. The outcome of the analysis corresponds to a meaningful set of decision rules represented as a top-down classification tree.

The second paper, by M.N. Diakomihalis, "Investments' evaluating methods in shipping. A comparison study between the newbuilding versus the secondhand vessel purchase", aims at aiding the final decision of the ship-owner or the prospect investor, by bringing out the advantages and disadvantages of investments' evaluating methods while emphasizing the necessity of a thorough evaluation of investment planning, based on the application of one or more of the proposed methods.

The third paper, by N.V. Nikitakos and I.P. Kirsteins, "An optimum detector for moving targets in heavy interference", derives a generalized likelihood-ratio test (GLRT) detector for detecting a space-time signal in the presence of unknown subspace interference and unknown target doppler. The near optimality and constant false alarm rate (CFAR) property of the GLRT is shown by the relationship to the uniformly most powerful invariant (UMPI) test using a simple approximation. Examples are presented comparing the detector against the UMPI tests and optimum Gaussian detector using ROC curves.

The fourth paper, by S.C. Politis, "Protection and rescue of life at sea", presents a thorough analysis of the legislative and institutional framework regarding issues of protection and rescue of life at sea while putting forward a number of interesting recommendations aiming at the improvement of the above framework.

The fifth paper, by A. Polydoropoulou et al, "Factors affecting the impact of e-economy on transport", presents a methodological framework for predicting the impact of e-economy on transport (POET). It includes a description of the forces driving structural change in the e-economy, their impact on communication patterns, the relevant actors and their decision making behavior. The state-of-the-art on the impacts of e-economy on passengers is then discussed. Research findings on teleshopping, mobile work and impact of ITS on transport are presented. Results from an innovative panel of experts survey on the impacts of e-economy on freight transport are then presented. The basic conclusion is that, in the opinion of the industry panel for POET, although the e-economy is not the driving force of changes to freight transport, it is having some major impacts as an enabler.

The sixth paper, by A. Roumboutsos and N. Litinas, "Project stakeholders' power distribution. A system's approach to uncertainty management", introduces a conceptual model to assist in risk response strategic planning. The model addresses risks by evaluating and mapping the power dependency amongst project stakeholders and their perceived utility of the project trade-offs between project cost to completion, time to completion and quality. Strategic risk response planning consists in influencing factors that define stakeholder utility thresholds, and thus, behaviour. In

the presented case study, stakeholders and their respective utilities were identified and assigned through the brainstorming and Delphi techniques. The successful completion of the described project is promising for the conceptual model illustrated herewith. However, further work is required to test and establish the proposed model.

The seventh paper, by P. Sioussouras, "Legal interpretations of Turkey's strategic aspirations in the Aegean Sea", attempts an analysis of the course and development of the International Law of the Sea. The aim of this analysis is to become a reference point in order for the divergence of the Turkish views from the existing legal framework would become clearer and objective. More specifically, the paper deals with the following issues: the development of the International Law of the Sea from Grotius to the Law of the Sea Convention (Montego Bay, 1982), the main arrangements of the LoS Convention concerning the Greek-Turkish relations and the divergence of the Turkish foreign policy in relation to these arrangements and the International Law overall.

The last paper, by E. Xideas, "Modeling migration under uncertainty", introduces a model explaining migration from one region to another taking into account uncertainty about earnings. The proposed approach differs from that of human capital in that it introduces uncertainty with the adoption of an utility function which the potential migrant seeks to maximize. The migration model is derived by using the idea of "optimal allocation" from the portfolio analysis.

Nikos Litinas and John Karkazis
On behalf of the editorial board

