

## TABLE OF CONTENTS

### PART A: Mechanical and Marine Engineering

S. Suresh, P. Pilidis and R. Singh, <i>Enhancing Operational Availability of GAS Turbines through Effective Maintenance Planning using Advanced Fault Diagnostics</i> .....	A-3
S. Tsiokas, I. Roumeliotis, N. Aretakis, A. Alexiou, <i>Assessment of the Conversion of a Helicopter Engine for Electrical Power Production</i> .....	A-15
I. Κατσάνης, Θ. Ζάννης, Ε.Γ. Παριάτης, <i>Η εφαρμογή του Θερμοδυναμικά Συνδυασμένου Συστήματος Joule-Brayton/Rankine ως Πρωτότυπο Σύστημα σε Σύγχρονα Πλοία</i> .....	A-31
T.C. Zannis, I.S. Katsanis, R.G. Papagiannakis and P. Kalpaxis, <i>Combustion Equilibrium Chemistry as a Teaching and a Research Tool in Hellenic Naval Academy: The Case of Oxy-Diesel Combustion</i> .....	A-45
Θ.Κ. Ζάννης, Ι.Σ. Κατσάνης και Α.Ι. Ευθυμιάδης, <i>Χρήση Βιοντίζελ σε Κινητήρες Ντίζελ: Μια Τεχνική, Οικονομική και Περιβαλλοντική Επισκόπηση</i>	A-69

### PART B: Electrical Engineering and Computer Science

H.E. Nistazakis, M.P. Ninos, A.N. Stassinakis, A.D. Tsigopoulos, and G.S. Tombras, <i>New Performance Results for QAM OFDM RoFSO Over K and Exponentially Modeled Turbulence Channels</i> .....	B-3
A.D. Tsigopoulos, M.P. Ninos, A.N. Stassinakis, <i>BER Estimation of Dual-hop PSK OFDM RoFSO Communication System over K or NE Modeled Turbulence and Optical Fiber with Nonlinear Clipping Effect</i> .....	B-17
E.A. Karagianni, A.P. Mitropoulos, I.T. Latif, A.G. Kavousanos-Kavousanakis, J.A. Koukos and M.E. Fafalios, <i>Atmospheric Effects on EM Propagation and Weather Effects on the Performance of a Dual Band Antenna for WLAN Communications</i> .....	B-29

## PART C: Natural Sciences and Mathematics

C.J. Papachristou, A.N. Magoulas, <i>Electromotive Force: A Guide for the Perplexed</i> .....	C-3
T.G. Douvropoulos, <i>Quantum Transmission via Resonant Tunneling in a Double Barrier Structure: a Path Integral Approach</i> .....	C-15
S. Golfinopoulos, K. Papageorgiou, <i>Water treatment with emphasis to magnetic separation methods</i> .....	C-33
K. Avgouleas, P.D. Sclavounos, <i>Fuel-Efficient Ship Routing</i> .....	C-39

## PART D: Humanities and Political Sciences

E. Konofagos, K. Karageorgis, <i>East Mediterranean Gas Discoveries: Offshore Security Challenges and "The Greek Case"</i> .....	D-3
G.A. Zombanakis, <i>Reducing Defence Expenditure in Greece: A Recipe in View of the Turkish Rivalry</i> .....	D-19
A. Ροφούζου, <i>O Ελληνικός Πολιτισμός στη Γερμανική Λαοκρατική Δημοκρατία</i> .....	D-27
K.E. Ιωαννίδου, <i>H Ναυμαχία στο Νότιον (407 π.Χ.) - H λανθασμένη τακτική</i> .....	D-35
E. Τσιαβού, <i>To Ελληνικό και το Γερμανικό Ναυτικό στο Διαδίκτυο: Σύγκριση Δημοσιευμάτων</i> .....	D-41

## PART E: Marine Sciences and Naval Operations

C. Kastrisios, <i>Methods of Maritime Outer Limits Delimitation</i> .....	E-3
C. Lelis, <i>Study of Structure and Seasonal Fluctuations of North Aegean's Sea Surface Circulation for the Delimitation of Search and Rescue Areas (in Greek)</i> .....	E-23
A. Drivas, <i>Warship Electronic Chart Display and Information System WECDIS (in Greek)</i> .....	E-51