

1st International MARINELIVE Conference on “All Electric Ship” - June 4-5, 2012

VENUE: Eugenides Foundation – 387 Syggrou Av., 17564, Athens

Final Program

TOPICS

- Propulsion Systems
 - Electric Machines and Power Converters
 - Prime Movers
 - Ship Automation and Control
 - Ship Electric Grids
 - Ship Power Management Systems
- Special Session 1: Investing on Electric Propulsion: The Ship Owner’s Point of View*
Special Session 2: Young People in AES research: The Future is Now

LOCAL ORGANIZING COMMITTEE

John Prousalidis	Lambros Kaiktsis	Christos Frangopoulos
Christos Papadopoulos	Konstantinos Aivalis	Dionysios Grekas
Eirini Efstathiou	Gerassimos Politis	Gregory Grigoropoulos
Nikolaos Ventikos	Dimitrios Lyridis	Fotios Kanellos
Andreas Skoufis	George Antonopoulos	George Tsourakis
Mary Georgiou		

SCIENTIFIC COMMITTEE

A. Alajbegovic (Germany)	M. Benatmane (UK)	J. Bohbot (France)
K. Boulouchos (Switzerland)	R. Bucknall (UK)	P. Georgilakis (Greece)
L. Guzella (Switzerland)	C. Hodge (UK)	A. Kladas (Greece)
G. Korres (Greece)	S. Manias (Greece)	P. Nikolakopoulos (Greece)
N. Papanikolaou (Greece)	S. Papathanassiou (Greece)	G. Sulligoi (Italy)
E. Tatakis (Greece)	G. Tsekouras (Greece)	C. Vournas (Greece)
J. Wills (UK)		

INFORMATION

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Final Program

Monday, June 4, 2012		
08:30 – 09:15	Registration	
09:15 – 09:30	Welcome by Prof. J. Prousalidis	
09:30 – 10:20	Keynote paper Title: All Electric Ship: Scientific Gaps in Control and Automation Presenter: Prof. D. Cartes	
10:20 – 10:40	Coffee Break	
	Session A1: Power Management Systems (Chairmen: Dr. G. Korres, Dr. I. Kobougias)	Session A2: Electric Machines and Drives (Chairmen: Prof. A. Kladas, Prof. G. Sulligoi)
10:40 – 11:00	Bagdasarian A., Knutson O., "An overview of the IPMS design with emphasis on the All Electric Ship"	Gyftakis K., Kappatou J., "The impact of the rotor slot number on the behaviour of the induction motor"
11:00 – 11:20	Manousakis N., Korres G., "Optimal placement of phasor measurement units in power systems"	Le Berr F., Abdelli A., Postariu D.M., "Design and Modelling Tool for Electric Machines: A Great Help Towards Transport Electrification"
11:20 – 11:40	Korres G., Manousakis N., "Combining conventional and synchronized phasor measurements in a hybrid state estimator"	Pallis I., Kappatou J., "An overview of electric machines thermal analysis trends"
11:40 – 12:00	Michalopoulos P., "Building an in-house IPMS"	Sarigiannidis A., Patsios C., Kakosimos P., Kladas A., "Control design and performance analysis of shaft generators in ship power systems"
12:00 – 13:00	Lunch Break	
	Session A3: Electric Propulsion (Chairmen: Dr. A. Greig, Dr. Ch. Patsios)	Session A4: Exploiting Other Research Results in AES (Cold Ironing) (Chairmen: Prof. C. Hodge, Prof. N. Ventikos)
13:00 – 13:20	Prempraneerach P., Chrysostomidis C., Karniadakis G.E., "Comparison between constant-slip control and direct-torque control of induction machine and crash astern operation"	Antonopoulos G. et al., "Cold Ironing – An overview"
13:20 – 13:40	Bucci V., Marino A., Bosich D., Sulligoi G., "Propulsion system design of a yacht catamaran: comparisons between conventional and different Diesel-electric solutions"	Tsekouras G., Kanellos F., "Reliability analysis of ship power supply system comprising cold ironing facility"
13:40 – 14:00	Proimadis I., Spyropoulos D., Mitronikas E., "An alternative for all-electric ships applications: the synchronous reluctance motor"	Gialketsi A., Tsekouras G., Kanellos F., Prousalidis J., "Ship electric load estimation using pattern recognition methods for the classification of the total electric load demand curves"
14:00 – 14:50	Coffee Break	

14:50 – 15:50	Keynote paper Title: A review of current friction reduction technologies – Prospects for marine applications Presenter: Prof. M. Fillon	
	Session A5: Exploiting Other Research Results in AES (electric vehicles, electric aircrafts, micro-grids) (Chairmen: Mr. P. Leontis, Dr. F. Kanellos)	Session A6: Propulsion systems (Chairmen: Dr. I. Vlaskos, Prof. L. Kaiktsis)
15:50 – 16:10	Kakosimos P., Tsampouris E., Patsios C., Kladas A., "A comparative study of PM and induction motor actuators for on board applications"	Xiros N., Zisman Z., von Ellenrieder K., "A modular dynamical simulation model for all-electric ship powertrain with surface piercing propeller"
16:10 – 16:30	Tsotoulidis S., Safacas A., "Validation of the operational behavior of a pem fuel cell stack supplying an active load via a DC/DC converter – dynamic modeling and design"	Pagonis D.N., Theotokatos G., Livanos G., "Determining instantaneous engine speed with high accuracy employing an optical measurement system"
16:30 – 16:50	Kobougias I., Tatakis E., "PV systems installed in marine vessels – Technologies and specifications"	Aivalis K. et al, "Development of heat release rate models for diesel and heavy fuel oil combustion in marine engines"
16:50 – 17:10	Mitilineos S. et al., "Conformal patch antenna arrays design for on-board ship deployment using genetic algorithms"	Dedes El., Hudson D., Turnock S., "Desing and simulation of hybrid propulsion systems for reduction of fuel oil consumption and shipping emissions"
17:10 – 17:30	Christidis G., Charalampous A., Tatakis E., "High DC voltage step-up conversion for marine applications"	Eastlack E., The future of marine propulsion: gas hybrid power plants
17:30 – 17:50	Spyropoulos D., Mitronikas E., "A review on faults of electric machines used in electric ships"	Stefanatos I., Dimopoulos G., Kakalis N., Ludvigsen K.B., "Towards a model-based assessment of hybrid marine energy systems"
17:50 – 18:10	Coffee Break	
	Session A7: Power Quality issues (Chairmen: Prof. D. Cartes, Dr. G. Tsourakis)	Session A8: Friction Reduction in Marine Propulsion Systems (Chairmen: Prof. M. Fillon, Prof. N. Xiros)
18:10 – 18:30	Cho B.G., Sul S.K., " Harmonic filters for naval vessels driven by active front end of two level PWM converters"	Papadopoulos C., Kaiktsis L., "Friction reduction in marine propulsion systems: The TRIBO-MARINE project"
18:30 – 18:50	Kanellos et al. "Improving the ship efficiency by treating the electric power quality in ship grids: the "DEFKALION-THALIS" and the "DC-Ship" projects"	Farmakopoulos M.G, Bompos D.A., Nikolakopoulos P.G., Papadopoulos C.A., "The role of the AMB on the ship propulsion"
18:50 – 19:10	Leng S., Edrington C., Cartes D., Optimal machine load distribution strategy for maximizing the power quality improvement capacity of parallel adjustable speed drives	Korres S., Feser T., Dienwiebel M., "An experimental approach to linking wear track widening and plowing friction force"
19:10 – 19:30	Shen Q., et al, Ultra-capacitor energy storage for power management in shipboard power system	

Tuesday, June 5, 2012

08:30 – 09:30	Registration
	Session B1: Investing on Electric Propulsion: The Ship Owner's Point of View (Chairmen: Dr. A. Greig, Dr. I. Vlaskos, Prof. P. Lalangas)
09:30 – 11:30	Presentations from executives from MARAN GAS (Hatzigrigoris S. / Spertos A.) GASLOG LNG Services (Zisis M.) TMS CARDIFF GAS (Krikkis R. / Mavrakis S.) LLOYD'S REGISTER (Twomey B.)
11:30 – 12:00	Coffee Break
12:00 – 12:30	Keynote paper Title: Harmonics analysis of machine flux profiles Presenter: Prof. C. Hodge
	Session B2: Young People in AES research (Chairmen: Ct. J. Wills, C. Hodge, P. Leontis)
12:30 – 13:10	IMarEST Diploma Theses Award (Boussounis P., Avgoulas E.I., Katzouros N., Mergos A.)
13:10 – 13:30	IMarEST Homework Projects in Marine Electrical Engineering Awards (Chaleplis C., Melissaris T., Panagiotakopoulos N., Kampylis P.)
13:30 – 14:00	Nikolopoulos L., "Case Study on the Holistic Optimization of an Innovative AFRAMAX tanker with Electric Propulsion"
14:00 – 14:30	Stavrou D., " Cable laying ships - electric driven vessels in the context of operation "
14:30 – 15:10	Lunch Break
	Closing Session
15:10 – 15:45	Closing Lecture Papaioannou D., Investing in Green Shipping. Experience and perspectives
15:45 – 16:00	Closure by Prof. I. Prousalidis
16:00 – 16:10	MARINELIVE Project participation in International Posidonia Exhibition (Stand No. 1422)