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List of applicants for participation in the BSAMI Educational Project
«BSAMI EDUCATIONAL SPACE»

№	Name, Surname of an applicant	Course name. Abstract of the course content	Number of academic hours	Contacts: tel., e-mail
1.	PhD. Smirnov Igor	***1. "Cross-cultural communication in a mixed crew".*** As the world has become increasingly interdependent, especially in the maritime industry, more and more maritime universities do their best to broaden cadets of their international views, enhance their capability of conducting cross-cultural business and be able to get along with the more diversified workforce of maritime industry. Training of students to cross-cultural communication in a mixed crew is of great importance. The offered course covers main problems and issues knowledge of which is important for fruitful work.	20	tel. +79883219031 e-mail: zeherd@yandex.ru
		2. "Marlins English for seafarers and offshore workers (per requirements of Marlins Headquaters Glasgow)". Marlins is the leading brand in training solutions for the shipping industry. This course should be taken by every prospective seafarer.	20	tel. +79883219031 e-mail: zeherd@yandex.ru
		3. "English for shipping business (forwarding agents, line agents, etc.)". English is the language of international shipping business and this course will equip you to participate fully in the global	20	tel. +79883219031 e-mail: zeherd@yandex.ru

		shipping industry. Using our innovative, project-based course you will improve your business English skills with hands-on experience in real simulations. Our business class offers a varied syllabus and also a dynamic learning environment because business students are highly motivated and will bring to the classroom their own professional experience. ***4. "Oil spill response".*** Oil spill responders face a variety of health and safety hazards, including fire and explosion, oxygen deficiency, exposure to carcinogens and other chemical hazards, heat and cold stress, and safety hazards associated with working around heavy equipment in a marine environment. A full discussion of these hazards is beyond the scope of this training course, but a brief cover of hazards and their known health consequences is involved in the offered course. Future specialists should be trained to anticipate and control exposure to the hazards associated with their future assigned duties.	20	tel. +79883219031 e-mail: zeherd@yandex.ru
2.	Prof. Dr. Irina Makashina	***1. "An introduction to maritime law".*** An introduction to maritime law is the propaedeutic course designed for future masters, managers, businessmen, lawyers, executives in Law Firms and Insurance Companies, Brokers, Charterers and National Authorities, whose careers require an understanding of maritime business, law and practice. Case studies are offered to increase participants' awareness	20	tel. +79184841625 e-mail: irmak@inbox.ru

		and skills while preparing for and conducting international business negotiations. **The purpose of the course is:** – to give students a thorough knowledge and understanding of the main principles of business and law, connected with shipping; – to provide students with experience in dealing with legal principles deriving from variety of legal instruments, including international conventions, statutes, case law and standard form maritime contracts; – to enable students to develop their skills of legal analysis and problem solving at an advanced level with an international aspect; – to teach students to draft legal advice based upon shipping issues.		
3.	Prof. Dr. Evgeny Dukhnich	**1."Analysis and Design of Algorithms".** This course introduces to the analysis and the design of algorithms. The first part of the course presents mathematical tools used to analyze an algorithm, that is to estimate its execution requirements (running time, memory size) in function of the size of the problem to solve. The second part exposes some well known programming paradigms, such as brute force, divide and conquer, dynamic programming, greedy algorithms and applies them on several types of problems. **2. "Hardware-oriented Algorithms for DSP".** This course includes results of author research for 30 years. New hardware-oriented algorithms for 2D and 3D positioning, coordinate system transformations, matrix decomposi-	from 10 to 30 from 10 to 30	tel. +7 9184907411 e-mail: evgenydukhnich@gmail.com tel. +7 9184907411 e-mail: evgenydukhnich@gmail.com

		tion, quaternion and octonion encryption schemes are considered.		
		3. "Usage of Hyper-Complex Number Systems to Design Hardware-Oriented Algorithms for Matrix Decomposition and Encryption Schemes". A generalized form for 2-D, 4-D and 8-D CORDIC rotation matrix is suggested. A novel, highly parallel, efficient hardware-oriented 8-D Octonion CORDIC algorithm for matrix computations is presented. One successful sequence of iterations with guarantied convergence is found. Hardware implementation of this algorithm is considered. Such a processor may be utilized to speed up solving linear systems, the eigenvalues, singular values, least squares and other linear algebra problems in DSP. Known quaternion encryption scheme (QES) is shown to be susceptible to the known plaintext-ciphertext attack (KPCA) due to not proper choice of the frame size and the procedure of secret quaternion updating. In this paper, a modification of the QES (M-QES) is proposed which is resistant to the KPCA. The M-QES is based on adjusting the frame size and the quaternion update procedure. An approach for effective hardware implementation of the proposed algorithm, HW-QES, is discussed. The HW-QES uses mainly addition and shift operations. Extension of quaternion approach to another hyper-complex number systems, octonions, is used for designing a new hardware-oriented encryption algorithm, HW-OES.	from 10 to 30	tel. +7 9184907411 e-mail: evgenydukhnich@gmail.com

4.	PhD. Natalya Shtirhunova	1. "**Investigation of marine casualties and incidents"** Course aims to provide students with a broad understanding of the purpose and objectives of marine accident/incident investigation; establish rights and obligations of States to conduct marine accidents and the role and responsibilities of an investigator in undertaking such duties; provide a clear perspective and understanding of procedures and techniques available for use in the investigation of a marine accident or incident; highlight current IMO activities in relation to marine accident safety analysis and implementation issues. This course will introduce and familiarize students with various international conventions, and other instruments, which are relevant to marine casualty investigations. IMO Code of the International Standards and Recommended Practices for a Safety Investigations into a marine casualty or marine Incident (res.MSC.255(84)) will be central to this course as well as resolution A.849(20), as amended by resolution A.884(21)) as guidance for actions to be undertaken. The course provides participants being actively involved in class presentations, group discussions and analyses of marine casualty case studies.	from 10 to 30	tel. +7 9181688980 e-mail: shtnat33@mail.ru
4.	Prof. Dr. Yury A. Peskov	1. **"Management in Shipping"** The course includes basic principles, structures, approaches and practice of modern management in Shipping – from the "Top Level" ("Maritime Transportation System" in general) to the levels of "Company" and vessel. Responsibilities and functions of States (State of	from 20 to 30	tel. +7 (8617) 601695 e-mail: Peskov@novoship.ru

		Flag, State of Port, State of Crew, etc.) are defined. The particular attention has been paid to the different “Management Systems” at a Company Level (SMS, QMS, EMS, OHSAS, etc.), including concept of the “Integrated Management System”. Different kinds of Vessel Inspections have been explained. The final part of the course is related to Shipboard and Bridge organization.		