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Udruga za proučavanje i razvoj pomorstva
*Association for Research and Development
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MARINE TECHNOLOGY in memoriam of the academician Zlatko Winkler

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Uvodna riječ Glavnog urednika / Foreword Chief Editor

Poštovani Čitatelji,

i ove je godine, u pandemijskom okruženju, specijalni broj Pomorskog zbornika kojeg držite u ruci, rezultat suradnje Udruge za proučavanje i razvoj pomorstva i Organizacijskog odbora Međunarodnog Savjetovanja o morskoj tehnologiji – in memoriam akademiku Zlatku Winkleru, tj. Tehničkog fakulteta Sveučilišta u Rijeci kao glavnog organizatora Savjetovanja. Također i ovaj put, radovi prikazani u ovom broju su probrani i recenzirani radovi koji su bili prezentirani na IX. Međunarodnom Savjetovanju o Morskoj tehnologiji, a koje je održano 11.-12. studenog 2021. godine, kao i dosadašnja, na Tehničkom fakultetu Sveučilišta u Rijeci, ali ovaj put u online okruženju. Odluka Organizacijskog odbora u ožujku 2021. godine da se ide na internetsko online izdanje Savjetovanja se pokazala kao promišljena, obzirom na vjerojatnost jesenskog vala epidemije, a koji se eto, nažalost, sada se to može reći, pokazao i kao najteži do sada.

Ove je godine uz organizatora, Tehnički fakultet Sveučilišta u Rijeci i stalnih suorganizatora, Pomorski fakultet Sveučilišta u Rijeci i Udruge za proučavanje i razvoj pomorstva, u organizaciji ponovo sudjelovala i međunarodna institucija Fakultet za pomorstvo i promet Sveučilišta u Ljubljani. Uz međunarodni znanstveni odbor i određen broj radova stranih autora, savjetovanje je zadržalo međunarodni karakter. Pokrovitelj je već tradicionalno

Dear Readers,

this year again, in the pandemic surroundings, the special issue of the Journal of Maritime & Transportation Sciences held in your hand is the result of a collaboration between the Association for Research and Development of Maritime Industries and the Organizing Committee of the International Conference on Marine Technology - in memoriam academician Zlatko Winkler, i.e. the Faculty of Engineering, University of Rijeka, as the main organizer of the Conference. Once again, the papers presented in this issue are selected and reviewed papers presented at 9th International Conference on Marine Technology which was held on 11-12. November 2021 at the Faculty of Engineering in Rijeka, Croatia, this time as online edition. The decision of the Organizing Committee from March 2021 to go to the online edition of the Conference proved to be thoughtfully, given the likelihood of an autumn wave of epidemics, which, unfortunately, can now be said to be the most difficult so far.

This year, in addition to the organizer, the Faculty of Engineering of the University of Rijeka and co-organizers, the Faculty of Maritime Studies of the University of Rijeka and the Association for Research and Development of Maritime Industries, the international high education institution Faculty of Maritime Studies and Transport of the University of Ljubljana participated in the organization again. With an interna-

bila Hrvatska akademija znanosti i umjetnosti – Razred za tehničke znanosti. Organizacijski odbor Savjetovanja bio je u sastavu: prof. dr. sc. Albert Zamarin, predsjednik, prof. dr. sc. Tomislav Mrakovčić, dopredsjednik, izv. prof. dr. sc. Marko Hadjina, tajnik, prof. emeritus Julijan Dobrinić, prof. dr. sc. Zoran Vukić, prof. dr. sc. Jakov Dulčić, prof. dr. sc. Elen Twrdy (Fakultet za pomorstvo i promet Sveučilište u Ljubljani), prof. dr. sc. Špiro Ivošević (Pomorski fakultet Kotor, Crna Gora), prof. dr. sc. Merica Slišković, izv. prof. dr. sc. Tin Matulja, izv. prof. dr. sc. Lidija Runko Luttenberger, izv. prof. dr. sc. Siniša Vilke, izv. prof. dr. sc. Goran Vukelić, i dr. sc. Marko Perčić.

Od prijavljenih 30 sažetka pristiglo je 28 kompletnih radova, sa 85 autora i koautora.

Dodatno je održano i pet plenarnih predavanja i to iz vrlo aktualnih područja i od priznatih međunarodnih firmi i institucija. Teme su bile: Zelena tranzicija i digitalna transformacija pomorskog sektora (Lürsen Design Center Kvarner & Maritime center of Excellence), Koncept broda za zbrinjavanje otpada sa hrvatskih otoka (IHC Engineering Croatia) i jedna uža tehnička tema, Automatska provjera izvijanja ukrepljenih panela (IHC Engineering Croatia), pregled projekta METRO, te prikaz aktivnosti i mogućnosti novog Centra za morsku tehnologiju Rijeka.

Priopćenja su prezentirana kroz 6 sekcija, iz područja tehničkih znanosti iz različitih polja i grana, i to: Zaštita okoliša (5), Pomorska biologija, Biotehnologija, Ribarstvo i Akvakultura (4), Konstrukcija i projektiranje u brodogradnji, Mali plovni ob-

tional scientific committee and a considerable number of papers by foreign authors, the conference retained international character. The patron is traditionally the Croatian Academy of Sciences and Arts - The Department of Technical Sciences.

The Conference Organizing Committee was composed of: prof. Albert Zamarin, president, prof. Tomislav Mrakovčić, vice-president, prof. Marko Hadjina, secretary, prof. emeritus Julijan Dobrinić, prof. Zoran Vukic, prof. Jakov Dulčić, prof. Tin Matulja, assist. prof. Lidia Runko Luttenberger, prof. Siniša Vilke, prof. Goran Vukelic, prof. Elen Twrdy (Faculty of Maritime Studies and Transport, University of Ljubljana), prof. dr. sc. Špiro Ivošević (Maritime Faculty Kotor, Montenegro), prof. dr. sc. Merica Slišković, and dr. sc. Marko Perčić.

Out of the 30 abstracts submitted, 28 complete papers were submitted, with 85 authors and co-authors. Additionally, five plenary lectures were held within very actual fields and from respectable international companies and institutions: Green transition and digital transformation of the maritime sector (Lürsen Design Center Kvarner & Maritime center of Excellence), Utility vessel concept for the Croatian Adriatic and automation of buckling check of stiffened panels by using commercial finite element analysis software (IHC Engineering Croatia), Maritime Environment-friendly Transport systems - METRO Project review and presentation of the capacity of center for marine technology – CMT Rijeka from Faculty of Maritime Studies University of Rijeka.

jekti (6), Pomorski transport, Tehnologija brodogradnje i Brodogradilišta (5), Primjena kompjuterskih aplikacija u projektiranju, proizvodnji i održavanju postrojenja morske tehnologije (5), Brodostrojarstvo, Automatizacija i kontrola (3).

Plenarna predavanja, priopćenja i diskusija su održani na engleskom jeziku, dok je ceremonija otvaranja održana paralelno na hrvatskom i engleskom jeziku. Savjetovanju je, tijekom dva dana prisustvovalo više od 100 sudionika, autora, koautora, organizatora, suorganizatora, sponzora, profesora, studenata, gostiju. Recenzirani sažetci priopćenih radova se nalaze na mrežnim stranicama Savjetovanja i u obliku knjige sažetaka, a kompletni radovi se, nakon drugog kruga recenzije, evo nalaze u Vašim rukama kroz ovaj specijalni broj Pomorskog zbornika.

Srdačan pozdrav

Glavni urednik
Prof. dr. sc. Albert Zamarin

Papers were presented through 6 sections, in the area of technical sciences from different fields: Marine Environmental Protection (5), Marine Biology, Biotechnology, Fisheries and Aquaculture (4), Construction and Design in Shipbuilding, Small Craft (6), Maritime Transport, Shipbuilding Technology and Shipyards (5), Computer applications in the design, manufacture and operation of marine technology facilities (5), Marine Engineering, Automation and Control (3).

Plenary lectures, announcements and discussions were held in English, while the opening ceremony was held in parallel in Croatian and English. The conference was attended by more than 100 participants, authors, co-authors, organizers, co-organizers, sponsors, professors, students, businessmen and guests. Reviewed abstracts are available on the Conference website as well in the form of a Book of abstracts, while the complete papers, after the second round of review, are in your hands through this Journal special issue.

Kind regards

Editor-in-chief
Prof. dr. sc. Albert Zamarin

