A Contribution to the History of Conferences on Marine Technology

Abstract

The paper brings an overview of all the Conferences on Marine Technology held so far – in memory of academician Zlatko Winkler. It gives the description of the entire Conference genesis, from the very idea and aims to the preparation and realization of each of the seven Conferences. Numerical data on Conferences are displayed in tables as well as the structure of their respective Organizing and Executive Committees.

1. Brief background

The idea of a conference on marine technology had emerged among members of the Section for Marine Technology with the University of Rijeka Faculty of Engineering. The history of the Section was already presented in an article published in the Journal of Maritime & Transportation Sciences [1], which also contained a review on the 5th Conference. The article addressed the initial activity of the Section for Marine Technology, its development, and actual position.

The Section has carried out its activities within the Croatian Academy of Science and Arts (HAZU) Scientific Council for Maritime Affairs. During the period the Academy was called JAZU (ex Yugoslav), there was the so-called Sixth Section for Marine Technology carrying its activity within the former Scientific Council for Maritime Affairs. Work was carried out within the Section by numerous professionals specialized in different fields that are all integrated within the definition of marine technology, where particular attention was paid, among others, to natural sciences and technical fields related with environmental protection.

By tradition, the Section has been linked to Rijeka and its surroundings owing to specific differences of the economy of the region as well as to the fact that the Faculty of Engineering of Rijeka has been fostering marine technology within the Institute for
Shipbuilding and Marine Technology Engineering, the way it had fostered it within the previous Institute for Mathematics, Physics, Foreign Languages and Kineziology – Physics and Environment Protection Department.

Such orientation was prompted by our late academician Zlatko Winkler, who had initiated a series of activities in Rijeka related with shipbuilding, higher education, and marine technology. Not only was he formally giving impetus to such orientation, but was also active in bringing together all those whose knowledge, skills and good will were expected to leave a specific imprint upon the study of shipbuilding at the Faculty of Engineering. In addition, as chairman of the Scientific Council for Maritime Affairs of the time, presently the HAZU Scientific Council for Maritime Affairs, he brought together all those individuals within the Section for Marine Technology who had come into prominence through their work in the field as the ones who would be able to enhance not only the activity of the Section, but also the sciences therein included. In that way, the Section was joined by numerous members of the faculty from the Faculty of Engineering including several institutes, particularly owing to the aforementioned multidisciplinary nature of marine technology.

All this, although representing just a tiny portion of the contribution bestowed by academician Winkler, was the basis that generated the idea of a conference to be dedicated to marine technology, as also confirmed by the extension to the conference title containing the wording „in memory of academician Zlatko Winkler“.

On 11th January 2005, decision was adopted at the meeting of the HAZU Scientific Council for Maritime Affairs Section for Marine Technology, on a conference on marine technology to be organized. Here follows Art. 5 of the Pro Memoria from the meeting:

_Decision was adopted on a scientific conference to be organized under the working title „Scientific Conference on Marine Technology“, leaving it upon the Organizing Committee to consider subsequently the possibility for the final title to be added the name of academician Zlatko Winkler. The organizers are the HAZU Scientific Council for Maritime Affairs Section for Marine Technology and the University of Rijeka Faculty of Engineering. Sponsorship of the HAZU is to be requested. The conference is to be held on the premises of the Faculty of Engineering of Rijeka in October / November 2005. Grants are to be requested from the Ministry of Science and Education, Foundation of the University of Rijeka, Foundation of the HAZU, Chamber of Commerce, as well as from different economic operators._

Preparations for the conference were initiated by Prof. Igor Rožanić, PhD by whom contributors were brought together within the Organizing Committee. Soon after that, final parameters were determined at the meetings of the Organizing Committee held on 17th January and 24th February. Since then, the title of the conference was „Conference on Marine Technology – in Memory of Academician Zlatko Winkler“. The first four conferences were organized by the HAZU Scientific Council for Maritime Affairs and
the University of Rijeka Faculty of Engineering. The fifth conference was organized only by the Faculty of Engineering. The sixth one was organized by the Faculty of Engineering and the Association for Research and Development of Maritime Industries, and the organization of the latest one, seventh in a row, was joined by the University of Rijeka Faculty of Maritime Studies.

In time, aims and professional contents of conferences were defined and they would change from one conference to another according to identified development trends and predictable social requirements. All the conferences have been sponsored by the HAZU as the supreme authority of the scientific institution of the Republic of Croatia. The Academy nominates one representative for each conference and the most recent one, academician Ivo Senjanović, comes from the Department of Technical Sciences. These conferences have been held biennially, in alternation with the traditional conference held in memory of the *nestor* of the Croatian shipbuilding, Prof. Leopold Sorta.

The conference structure has been the same ever since the very beginning; the opening is followed by sections of invited plenary presentations, more or less emphasizing topics that follow as well as the conference itself. Then follow sections, i.e. groups of presentations containing thematically classified and accepted contributors’ presentations. Main topics are related to shipbuilding, but almost by the rule there are also topics concerning other fields related to marine technology. Presentations with topics diverging from the main fields are classified within a separate section, usually at the end of a conference. Particular emphasis should be put upon the so-called special section, containing presentations by the group of authors from the Faculty of Electrical Engineering and Computing (FER) headed by Prof. Zoran Vukić, PhD, having the content and innovativeness that contribute to the conference level.

### 2. Conference aims

It was in the early period of preparations that Conference aims were determined, whereupon selection criteria for presentations were developed later on in accordance with their contents and level. Here follows a brief list of aims:

- to give an overview and point to scientific researches, their outcomes and implementation in the field of marine technology in Croatia and its importance for the economy and for the stimulation of development of this activity in Croatia,
- to inform the economy, scientific and professional public on features of marine technology as a branch of industry
- to provide pieces of information on commercial activities in the field of marine technology that need to be taken into consideration in determining main directions of our technological development,
- to stimulate the establishment of a high level coordination and cooperation
in industries related to the sea and marine technology, in particular in conditions of the necessary expansion of exports,
- to provide elements for participation in the international transfer of technology based on our own technological know-how.

These main aims have been modified in terms of content from one conference to another, in accordance with actual problems within the national economy and following and presenting most recent technological achievements both in Croatia and abroad.

3. Factography

Owing to great efforts and commitment of the Chairman of the Section for Marine Technology, Professor Igor Rožanić, PhD, as well as other members of the Section, it was possible to initiate preparations and to organize and hold seven Conferences on Marine Technology so far. Conferences have always presented an integral part of the programme of activities of the Section. Table 1 gives a breakdown of conferences held so far:

Table 1 [2-7]

| Term           | Contributors | Authors & co-authors | Presentations | Proceedings ISBN / ISSN |
|----------------|--------------|----------------------|---------------|-------------------------|
| W1 28-29 11.2005 | 47           | 32                   | 21            | 963-6326-47-7           |
| W2 26-17. 11. 2007 | 71          | 58                   | 26            | 978-953-6326-40-2       |
| W3 30. 12. 2009   | 82           | 81                   | 32            | 978-953-6326-17-4       |
| W4 25-26. 11. 2011 | 55          | 72                   | 32            | ISSN 1848-3976         |
| W5 22-23. 11. 2013 | 62          | 50                   | 23            | ISSN 1848-3976         |
| W6 20. 11. 2015   | 61           | 51                   | 21            | ISSN 0554-6397         |
| W7 17. 11. 2017   | 52           | 37                   | 20            | ISSN 0554-6397         |

Membership of Organizing Committees has changed with time, in accordance with the ever increasing number of different fields included in conferences. From the initial four members, membership of the 7th Organizing Committee has grown to reach 16.

Tables 2.1 - 2.7 present memberships of all seven Conference Committees.

Table 2.1 [2]

| Organizing Committee | Executive Committee |
|----------------------|---------------------|
| W1 Prof. Igor Rožanić, PhD – Chairman | Prof. Bruno Čalić, PhD |
|                      | Prof. Julijan Dobrinić, PhD |
|                      | Prof. Bernard Franković, PhD |
### Table 2.2 [3]

| Organizing Committee | Executive Committee |
|----------------------|---------------------|
| W2                   |                     |
|                      | Prof. Igor Rožanić, PhD – Chairman |
|                      | Prof. Bernard Franković, PhD |
|                      | Prof. Bruno Čalić, PhD |
|                      | Prof. Julijan Dobrinić, PhD |
|                      | Prof. Nikša Fafandjel, PhD |

### Table 2.3 [4]

| Organizing Committee | Executive Committee |
|----------------------|---------------------|
| W3                   |                     |
|                      | Prof. Igor Rožanić, PhD – Chairman |
|                      | Prof. Bruno Čalić, PhD |
|                      | Prof. Julijan Dobrinić, PhD |
|                      | Prof. Nikša Fafandjel, PhD |
|                      | Prof. Bernard Franković, PhD |
|                      | Prof. Ivan Juraga, PhD |
|                      | Gorenka Sinovčić, PhD |
|                      | Prof. Zoran Vukić, PhD |
|                      | Asst. Prof. Albert Zamarin, PhD |

### Table 2.4 [5]

| Organizing Committee | Executive Committee |
|----------------------|---------------------|
| W4                   |                     |
|                      | Prof. Igor Rožanić, PhD – Chairman |
|                      | Prof. Bruno Čalić, PhD |
|                      | Prof. Julijan Dobrinić, PhD |
|                      | Prof. Nikša Fafandjel, PhD |
|                      | Prof. Bernard Franković, PhD |
|                      | Gorenka Gorana Sinovčić, PhD |
|                      | Prof. Zoran Vukić, PhD |
|                      | Prof. Igor Rožanić, PhD – Chairman |
|                      | Prof. Julijan Dobrinić, PhD |
|                      | Asst. Prof. Albert Zamarin, PhD |
|                      | A. L. Iva Kolacio |

### Table 2.5 [6]

| Organizing Committee | Executive Committee |
|----------------------|---------------------|
| W5                   |                     |
|                      | Prof. Igor Rožanić, PhD – Honorary Chairman |
|                      | Prof. Julijan Dobrinić, PhD - Chairman |
|                      | Prof. Bruno Čalić, PhD |
|                      | Prof. Nikša Fafandjel, PhD |
|                      | Prof. Bernard Franković, PhD |
|                      | Prof. Tomislav Mrakovčić, PhD |
|                      | Gorenka Sinovčić, PhD |
|                      | Prof. Zoran Vukić, PhD |
|                      | Asst. Prof. Albert Zamarin, PhD |
|                      | Prof. Julijan Dobrinić, PhD |
|                      | Prof. Tomislav Mrakovčić, PhD |
|                      | Asst. Prof. Albert Zamarin, PhD |
|                      | Marko Perčić, MSc (Mech. Eng.) |
Table 2.6 [7]

| Organizing Committee | Executive Committee |
|----------------------|---------------------|
| W6                   |                     |
| Prof. Igor Rožanić, PhD – Honorary Chairman | Prof. Julijan Dobrinić, PhD |
| Prof. Julijan Dobrinić, PhD - Chairman | Prof. Tomislav Mrakovčić, PhD |
| Asst. Prof. Albert Zamarin, PhD – Vice Chairman | Asst. Prof. Albert Zamin, PhD |
| Prof. Tomislav Mrakovčić, PhD – Secretary | Marko Perčić, MSc (Mech. Eng.) |
| Asst. Prof. Lidija Runko Luttenberger, PhD |                     |
| Asst. Prof. Siniša Vilke, PhD |                     |
| Prof. Bruno Čalić, PhD |                     |
| Prof. Nikša Fafandjel, PhD |                     |
| Prof. Bernard Franković, PhD |                     |
| Prof. Branko Klarin, PhD |                     |
| Gorenka Sinovčić, PhD |                     |
| Prof. Zoran Vukić, PhD |                     |
| Alan Klanac, PhD |                     |
| Marko Perčić, ScM (Mech. Eng.) |                     |

Table 2.7 [8]

| Organizing Committee | Executive Committee |
|----------------------|---------------------|
| W7                   |                     |
| Prof. Igor Rožanić, PhD – Honorary Chairman | Prof. Albert Zamarin, PhD, Chairman |
| Prof. Albert Zamarin, PhD - Chairman | Prof. Julijan Dobrinić, PhD, professor emeritus |
| Assoc. Prof. Marko Hadjina - Secretary | Prof. Tomislav Mrakovčić, PhD |
| Prof. Julijan Dobrinić, PhD, professor emeritus | Assoc. Prof. Marko Hadjina, PhD |
| Prof. Nikša Fafandjel, PhD | Assoc. Prof. Tin Matulja, PhD |
| Prof. Zoran Vukić, PhD | Marko Perčić, MSc (Mech. Eng.) |
| Prof. Bernard Franković, PhD |                     |
| Prof. Branko Klarin, PhD |                     |
| Assoc. Prof. Tin Matulja, PhD |                     |
| Asst. Prof. Lidija Runko Luttenberger, PhD |                     |
| Asst. Prof. Siniša Vilke, PhD |                     |
| Asst. Prof. Goran Vukelić |                     |
| Gorenka Sinovčić, PhD |                     |
| Alan Klanac, PhD |                     |
| Marko Perčić, ScM (Mech. Eng.) |                     |

4. Conclusion

Conclusively, the significance of these conferences follows from the words of our academician Ivo Senjanović, Chairman of the Croatian Academy of Science and Arts (HAZU) Scientific Council for Maritime Affairs, spoken in his address at the latest Conference, 7th in a row:
“As you may be aware, this already traditional gathering dedicated to academician Zlatko Winkler has been organized by the University of Rijeka Faculty of Engineering under the auspices of the Croatian Academy of Science and Arts. It is my great pleasure to greet you in my capacity of delegate of the Academy both in my name and in the name of the Academy itself, on behalf of its Chairman, academician Zvonko Kusić, and the Department for Technical Sciences and its Secretary, academician Stjepan Jecić.

Sponsorship for the Conference was undertaken by the Academy in token of gratitude to its former full member Zlatko Winkler, chairman of the former Scientific Council for Maritime Affairs in the period from 1994 till 1996. It was owing to academician Winkler and his visionary quality that Section for Marine Technology was established within the Council and that upon his proposal marine technology was introduced as a new scientific discipline in the curriculum of the Faculty.

Marine technology covers a wide spectrum of human related activities at sea, under the sea, on the seabed and ocean floor and in the subsoil thereof. Construction of special facilities for research and utilization of natural resources from the seabed, the wind, wave and tidal stream energy, fish farming and the like are certainly standing out. According to estimates, marine technology is considered to have surpassed conventional shipbuilding where the invested capital is concerned. These days, with shipbuilding industry in Croatia scaled down, praise is due to the move that marine technology and construction of sophisticated high added value facilities have been making” ...

References
1. J. Dobrinić, Conferences on Marine Technology 2005 – 2013, Journal of Maritime & Transportation Sciences, 47/48, The Republic of Croatia Association for Research and Development of Maritime Industries, Rijeka, 2013, p. 303 – 310.
2. Proceedings from 1st Conference on Marine Technology – in Memory of Academician Zlatko Winkler, Faculty of Engineering, Rijeka, 2006.
3. Proceedings from 2nd Conference on Marine Technology – in Memory of Academician Zlatko Winkler, Faculty of Engineering, Rijeka, 2008.
4. Proceedings from 3rd Conference on Marine Technology – in Memory of Academician Zlatko Winkler, Faculty of Engineering, Rijeka, 2010.
5. Proceedings from 4th Conference on Marine Technology – in Memory of Academician Zlatko Winkler, Faculty of Engineering, Rijeka, 2012.
6. Proceedings from 5th Conference on Marine Technology – in Memory of Academician Zlatko Winkler, Faculty of Engineering, Rijeka, 2014.
7. Proceedings from 6th Conference on Marine Technology – in Memory of Academician Zlatko Winkler, Journal of Maritime & Transportation Sciences (special issue), Faculty of Engineering, Association for Research and Development of Maritime Industries, Rijeka, 2016.
8. www.riteh.uniri.hr/winkler/.
