Professor Šime Malenica – a corresponding member of the Croatian Academy of Sciences and Arts

Professor Šime Malenica was elected to the Croatian Academy of Sciences and Arts as a corresponding member on 9 June 2016. He was born in Split in 1965, where he enrolled in the study of naval architecture at the Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture in 1985. Two years later, he continued his education at the University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture and got his BEng degree in naval architecture in 1990. Šime Malenica was awarded his Master's and Doctoral degrees by the Pierre and Marie Curie University (Paris VI) in 1991 and 1994, respectively. At that time, he started his career at the French Institute of Petroleum (IFP). Currently, Professor Malenica works at the classification society Bureau Veritas (BV), Paris, where he is the Head of Hydro-Structure Section.

Professor Malenica is engaged in the development of numerical methods for ship hydrodynamics and of software for a direct calculation of the ship structural response according to the Classification Rules. He has participated in a number of French industrial research projects as well as in international projects, as for instance Cooperative Research Ships (CRS) with about 30 scientific institutions from the NATO member countries, and Studies on the Advanced Hydroelastic Analyses for Marine Structures, funded by the Korean Government through Global Core Research Center for Ships and Offshore Plants (GCRC SOP). He was a coordinator of the EU FP7 project *Tools for Ultra Large Container Ships* (TULCS). The project consortium consisted of 13 organizations under the leadership of Bureau Veritas, Paris and included Hyundai Heavy Industries, the world largest shipyard as an associate member. Results of the project are summarized in 14 papers, published in the Special Section of International Journal of Naval Architecture and Ocean Engineering (IJNAOE) in 2014, edited by Šime Malenica and Ivo Senjanović as Guest Editors.

Professor Malenica collaborates with researchers from well-known universities, e.g. MIT, Oxford, Houston, Novosibirsk, Seoul, Busan, Harbin, Dalian, Marseille, Nantes, Trondheim, and Zagreb, etc. He has published a large number of papers in outstanding international journals such as Journal of Fluid Mechanics, Applied Ocean Research, Journal of Fluid and Structures, Ocean Engineering, etc. He took participated in a lot of international conferences like IWWWFB, BOSS, Hydroelasticity in Marine Technology, ISOPE, OMAE, NAV, IMAM, etc. He has been invited to deliver lectures at a number of universities, e.g. MIT, Oslo, Trondheim, Santa Barbara, Texas A&M, Davison Laboratory, Seoul National University, Pusan National University, Osaka University, Shanghai Jiao Tong University, etc. Also, he has been a mentor or a co-mentor of several doctoral candidates at different universities worldwide (Croatia, France, Netherlands, Denmark, Norway, Korea, etc.).

Professor Malenica is a member of the International Ship and Offshore Structure Congress (ISSC), the most important organization in the field of ships and offshore structures, which has different Technical Committees. The Congress takes place in different countries every third year, evaluating new achievements of the past period and establishing directions for further research. Šime Malenica is a member of the Editorial board of *Marine Structures*, the most important international journal of the field. He is also a member of the Scientific Council for Maritime Affairs of the Croatian Academy of Sciences and Arts, and a member of the Standing Committee of the Croatian national symposium *Theory and Practice of Naval Architecture* in memoriam Professor Leopold Sorta.

Professor Malenica, together with dr. Xiao-Bo Chen, has created very important hydrodynamic software HYDROSTAR for the wave induced load analysis of ships and offshore structures, which is used worldwide. Recently, he has become the leader in the

development of the HOMER software for the analysis of wave load and the response of ships and offshore structures by taking into account a set of hydro-structural phenomena (quasi-static, hydroelastic, local, and global). The software has been used in more than fifty commercial projects for different floating units worldwide (ships, offshore platforms, LNG terminals, etc.).

Professor Malenica was appointed an Honorary Associate Professor at the University of Zagreb. He has developed extensive collaboration with Croatian researchers in many ways:

- Common research and publishing,
- Engagement of Croatian researchers in common international projects,
- Participation in the projects of the Croatian Ministry of Sciences, Education and Sports, in TEMPUS Projects NUSIC and ASDEPP,
- Organization of international conferences in the Republic of Croatia,
- Teaching courses of doctoral studies at UNIZAG FSB,
- Mentoring of doctoral candidates,
- Organization of the training of young researchers in Bureau Veritas, Paris, etc.

He has also given two lectures at the Croatian Academy of Sciences and Arts: *Review of numerical simulations in hydrodynamics of offshore structures* and *Hydroelastic problems in design of ultra large container ships*.

Professor Šime Malenica was awarded by the Croatian Academy of Sciences and Arts in technical field in 2015, based on the developed numerical methods (published in leading international journals) which represent a unique and permanent contribution to engineering sciences, and, thanks to the cooperation with Croatian scientists, also to the Croatian shipbuilding industry for its development and competitiveness in the demanding world market.

Professor Šime Malenica accepts charter of the Academy membership from Professor Zvonko Kusić, President of the Croatian Academy of Sciences and Arts

Ivo Senjanović