

Name of the MSC Fellow: Neven Alujević

Nationality: Croatian

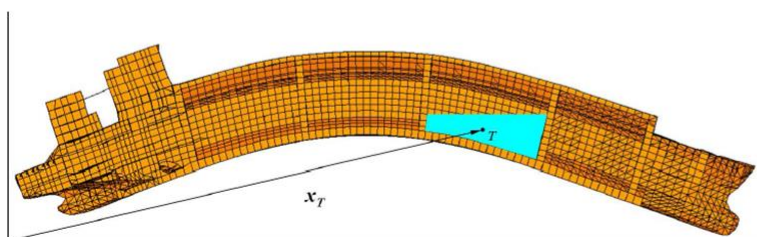
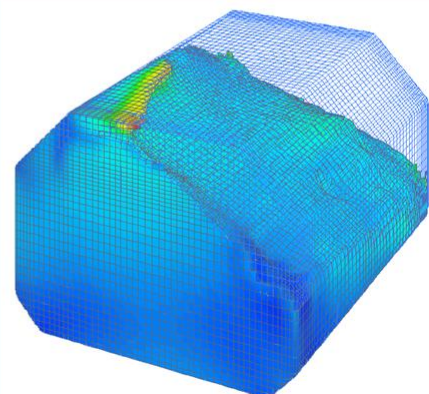
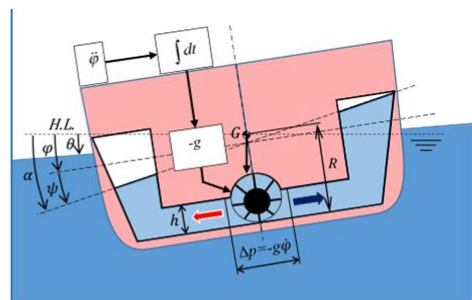
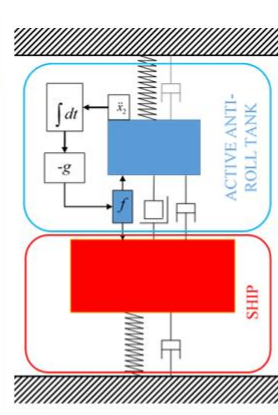
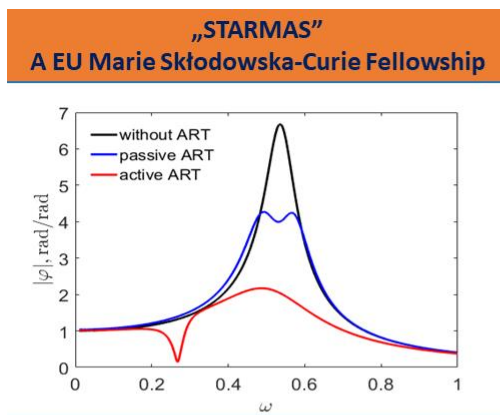
Host organization: University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture

Country of the Host: Croatia

Project Acronym: STARMAS

Project start and end date: 01.05.2016.-30.04.2018.

Type of MSC action, H2020: IF



Your story:

Project objectives and research field:

The fundamental research objective of the STARMAS project is to employ the researcher’s expertise to develop novel concepts for active control of ship roll and also for the recuperation (harvesting) of wave energy. The fundamental training objective of the project is to enable an experienced researcher with a background in active control to widen his expertise towards the ocean engineering applications.

Tell us why your topic is important and/ or how it brings to advancement in your research field:

The research topic is important because it addresses a major challenge in the field of ocean engineering, which is how to come up with new ship designs and equipment to improve safety and environmental performance of ships. This means improving energy efficiency in ships, reducing their environmental impact, minimising the risks of accidents and providing better quality of life at sea.

The work carried out represents an advancement in the research field since the power flow in both passive and active ship roll control devices has been thoroughly examined and a clear guidelines for designing effective passive energy harvesters and active roll control devices with low-power consumption have been provided.

What are the benefits of participating in a MSC action?

I have greatly benefited from the action. The impact of the fellowship on my career is quite profound. In particular, as a result of my integration in the host group, I have acquired substantial new knowledge in the area of marine structures and ocean engineering, such as understanding and modelling of ship stability and seakeeping and modelling of wave excitations of ships and other offshore structures. The work carried out in the framework of this project contributes to achieving the "[Commission Communication - Strategic goals and recommendations for the EU's maritime transport policy until 2018](#)" by contributing to the field of advanced marine structures with improved safety, environmental performance and quality of life at sea. Innovative active control concepts for improved sea-keeping and increased probability of survival at rough seas have been proposed, and novel technologies for wave energy recuperation have been investigated contributing to knowledge for greener transport technologies.

Did you encounter any challenges during application/ implementation and did you get any help?

I did not encounter any major challenges during the application. During the implementation I had to deal with the usual management/organisational tasks for which I have received help from the very competent *Office for research projects and mobility programmes* of the host institution and from the *NCP* in Croatia.

Why did you choose a widening country as a Host? What was the reason that convinced you? What is making you professionally happy here?

I am a Croatian and I wanted to continue my career in Croatia after a period of mobility in another EU country. Furthermore, during the execution of the project I was enabled to work with a great team of colleagues with whom I continue to

collaborate after the end of the project. Finally, I have been offered a permanent post after the end of the MSCA project which made me professionally very happy.

Would you recommend others to apply? What useful advice/ tips can you give them?

I would recommend others to apply. In fact, I already have on many occasions. I would have the following advice/ tips:

- Make sure that at the time of submitting the application you have a strong scientific track record. This means lots of papers published in reputable journals with international peer review.
- Carefully investigate your host institution and the supervisor in advance. Make sure that he/she has a strong scientific track record. Also, investigate if the supervisor has a strong history in guiding PhD students and postdocs. Do you personally know him/her, or someone from his/her group? Do people in the supervisor's group achieve scientific maturity quickly? What can they say about the supervisor and the group?
- Come up with a research plan that simply calls for yours and the supervisor's expertise, i.e. make sure that you are the perfect person for carrying out the proposed research and that the supervisor is among the best ones in the EU for what you want to do in this particular project.