

**Title of MSc Thesis**

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New Masterplan of Thessaloniki's Port: feasibility study of pier expansion

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**ABSTRACT**

The objective of the present thesis is the economic and technical exploration of the expansion of a pier for the servicing of Ro-Ro ships in Port of Thessaloniki. The aim is to choose the best economic and technical solution, while presenting new construction methods and materials of the investigated projects. The study area of the project is the 3<sup>rd</sup> Pier of the Port, which is expected to serve similar coastal connection in the near future. In the framework of the investigation a detailed report of the necessary, initially, theoretical knowledge required for the ships served, principles, materials and construction methods of floating structures is made. Next, detailed dimensioning of the proposed solutions is implemented, construction sketches are formed and the relevant budget of the proposed solutions is estimated. Finally, the final selected solution is presented, accompanied by the conclusions of the investigation.

**Keywords:** Feasibility study, Port, Quay, pontoons, RO-RO.