



## **ACADEMIC YEAR 2016 – 2017**

### **TITLE OF DIPLOMA THESIS:**

NEW MASTERPLAN OF THESSALONIKI'S PORT: FEASIBILITY STUDY OF PIER EXPANSION

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### **ABSTRACT**

The subject of this postgraduate diploma 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 3rd 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 theoretical knowledge required for the ships served, principles, materials and construction methods of floating structures is made. The necessary calculations (coastal engineering, dimensioning of proposed solutions), construction sketches and their budget are carried out. Finally, the final manufacturing solution is presented, accompanied by the conclusions of the investigation.

### **KEYWORDS**

Port, Ro-Ro, coastal engineering, floating pontoons, quay, berthing, modules, fenders, feasibility study