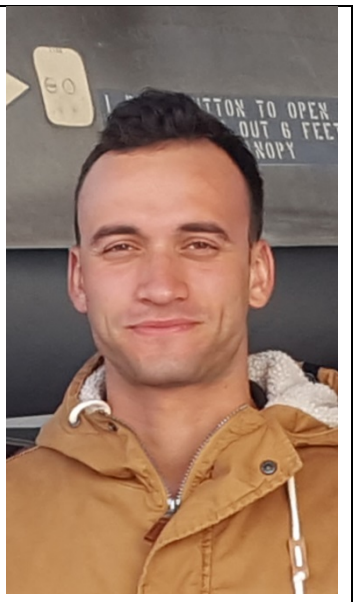
#	**Marios I. Kourampas** Naval Engineer Officer	
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Presentation title:	**Theoretical Study of the Effect of Injection Timing Malfunction on DI Diesel Engine Performance and Combustion Characteristics**	

In the present study a theoretical investigation was performed relative to the effect of fuel injection timing malfunction, which was considered as retardation compared to the nominal value at a certain operating point, on the performance and combustion characteristics of a single-cylinder high-speed direct injection (DI) diesel engine. The examination of fuel injection timing retardation on DI diesel engine performance and combustion characteristics was based on the use of a closed cycle engine simulation model and of a cylinder pressure processing and combustion analysis model. The engine simulation model was used to generate cylinder pressure profiles for four different values of fuel injection timing. The cylinder pressure profiles were supplied to a combustion analysis model developed under a diploma thesis conducted in Hellenic Naval Academy. The combustion analysis model provided results for various performance characteristics and combustion characteristics. The examination of the combustion analysis model results showed that the retardation of injection timing results in considerable deterioration of diesel engine performance parameters and combustion characteristics and thus, it can be considered as an engine malfunction, which require specific maintenance actions.

CV:

Marios Kourampas graduated from the Hellenic Naval Academy in 2018 with an A+ degree in Naval Science and Engineering. During all his undergraduate studies was first of his class and he was also graduated first of his class. His undergraduate diploma thesis involved the development of a diesel engine performance and combustion analysis software and it received top scores from all its examiners. Mr. Kourampas received honorary distinctions for his academic achievements in Hellenic Naval Academy and he is proficient in English. Currently Mr. Kourampas serves as Naval Engineer Officer in Hellenic Navy fleet.

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