



Departamento de Ingeniería de Comunicaciones

CONFERENCIA

High-speed Underwater Wireless Optical Communication: Potential, Challenges, and Possible Solutions

impartida por

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Abstract:

Traditional underwater communication systems rely on acoustic modems due their reliability and long range. However their limited data rates, lead to the exploration of alternative techniques. In this talk, we briefly go over the potential offered by underwater wireless optical communication systems. We then summarize some of the underwater channel challenges going from severe absorption and scattering that need to be surpassed before such kind of systems can be deployed in practice. We finally present some of the on-going research directions in the area of underwater wireless optical communication systems in order to (i) better characterize and model the underwater optical channel and (ii) design, develop, and test experimentally new suitable modulation and coding techniques suitable for this environment.