



FACULTY MENTOR

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PROJECT TITLE

Video Transmission over Underwater Communication Channels

PROJECT DESCRIPTION

We are interested system designs that allow for the efficient transmission of video waveforms over underwater acoustic channels. Our approach is based upon the joint optimization of the physical and application layers. This cross-layer approach will allow us to enhance spectral efficiency, which is necessary in order to satisfy the inherent of need video for high data rates, with the restricted bandwidth of underwater acoustic waveform channels. We will incorporate the use of high compression video encoding, high order alphabets sizes for the modulation, and underwater relays to enhance range.

INTERNS NEEDED

2 students, at least one of whom is an MS Student

PREREQUISITES

Some knowledge of both digital communications and video compression