On Wednesday, March 9th, California Maritime Academy’s SNAME Student Section spent their evening on M/V *Cabernet Sauvignon* in Alameda, CA (Picture 1). NorCal SNAME Section and San Francisco’s ASNE Section held a joint meeting with DOER (Deep Ocean Exploration and Research) as the keynote speaker. DOER is an engineering company specializing in ROV production, ROV products, and ROV services. The company is located in Alameda, CA.

Prior to the main presentation, CMA cadets had a chance to network with professionals in Naval Architecture and Marine Engineering and casually discuss the current state of this industry. Most cadets asked questions about future prospects for employment and which sectors are more likely to hire.

DOER gave an insightful presentation about their ongoing projects. Currently, the submersible engineering firm is working on the “Sub Ice ROV” or “SIR.” It is a highly specialized hydraulic vehicle designed to fit down a hole bored through 1000 m of Antarctic ice (Picture2). Its mission is to explore below the “Ross Ice Shelf” with special focus on the “grounding line”: the area where the ice leaves the shore and floats out over the water. This wholly unexplored realm may hold key information about climate change, sub ice shelf geology, undiscovered species, and clues about causes of ice shelf thinning. Once below the ice, the SIR transforms from the “down hole” mode and unfolds into “exploration/flight” mode.

In addition to unmanned submersibles, DOER is conducting an ongoing program to develop a human occupied submersible capable of providing unlimited access to all areas of the ocean. Called “Project Deepsearch,” DOER’s design draws upon the advances in technology developed over the past fifty years and combines them with proven methodologies resulting in a new approach to deep ocean exploration (Picture 3). The focus areas include the use of massive glass for a personnel sphere, diving profile, battery technology, floatation, and ceramic materials. The goal for Deepsearch is to build a world asset capable of providing scientists with unlimited access to the deep ocean.

CMA-SNAME Student Section cadets were very impressed by the work done at DOER. Cadets were thrilled to find out that DOER’s design facility uses Pro-E as their main CAD software. Pro-E is the primary CAD program used at Cal Maritime and all Mechanical Engineering cadets are trained extensively on its many abilities/applications.