

NAVAL SCIENCE AND TECHNOLOGY

ENGR 3109: Navy STEM Professional Development Seminar

Wednesday, October 9, 2019

5:00 pm to 6:00 pm

URI – Livestreaming to UConn

“APPLICATIONS OF TODAY’S 3D FORWARD LOOKING SONAR FOR REAL-TIME NAVIGATION & BATHYMETRIC SURVEY”

DESCRIPTION: Currently, the main application of commercially available three-dimensional forward looking sonar (3D FLS) technology is for real-time vessel navigation. Using 3D FLS technology, the vessel operator can detect not only the range and bearing to a navigational hazard, but also the depth of the hazard in the water column. However, 3D FLS is itself a nascent technology for which many exciting applications are yet to be realized. In this presentation, the current applications of 3D FLS will be surveyed, and some useful metrics for the evaluation of a 3D FLS will be discussed. New possible applications of 3D FLS will also be introduced.

MATTHEW ZIMMERMAN, VP OF ENGINEERING

FARSOUNDER, WARWICK, RI

Matthew Zimmerman, founder, director, and VP of Engineering, has been responsible for the technical development and vision of FarSounder since its inception in 2001. Throughout this period, Matthew has focused on building and grooming a unique team capable of translating customer needs into best-in-class commercial products.

His responsibilities include directing the development, testing, and productization of FarSounder’s sonar technologies from initial design concept, to sea testing prototypes and product level technology including both hardware and software components. Frequent interactions with vessel owners and crew provide Matthew with a unique insight in guiding the Company’s development path. He is equally comfortable directing equipment installation in dry dock, explaining FarSounder’s products to superyacht owners at trade shows, training crew on the bridge of a ship, and leading a field test for one of FarSounder’s R&D projects.

Holding five patents in sonar technology, Matthew is the initial developer of FarSounder’s Target Model Processing which enables enhanced resolution processing of 3D sonar information. At FarSounder, he has managed government development projects totaling over \$5M in addition to IR&D and sponsored commercial development projects in navigation, security and defense, and fisheries.

Matthew graduated magna cum laude from the University of Rhode Island’s International Engineering Program and is fluent in French and German.

Upcoming Distinguished Seminars



LT Caitlin Tye

Navy Recruiting District
New England

OCTOBER 16TH @ 5PM
UConn – ITE 336



Bill Matuszak

Vice President
IN-DEPTH

ENGINEERING

OCTOBER 23RD @ 5PM
URI – Avedisian Hall 240



Peter Legnos

President & Founder
LBI, Inc.

OCTOBER 30TH @ 5PM
UConn – ITE 336



Bruce Abraham

CTO & Vice-President
APPLIED PHYSICAL
SCIENCES CORP (APS)

NOVEMBER 6TH @ 5PM
UConn – ITE 336

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