

# NAVAL SCIENCE AND TECHNOLOGY

## ENGR 3109: Navy STEM Professional Development Seminar

Wednesday, September 5, 2018

5:00 pm to 6:00 pm

UConn, Storrs Campus – Storrs Hall WW16

### “SYNTACTIC FOAM FOR SUBSEA BUOYANCY APPLICATIONS”

**DESCRIPTION:** Syntactic foams have been used for decades as a reliable and simple way to provide buoyancy for subsea vehicles. However, using this material in subsea applications requires specific design considerations by the engineer. This talk will explain what syntactic foam is, its properties, how it's manufactured, and its applications.

#### ENGINEERED SYNTACTIC SYSTEMS

ESS is a leading supplier of high-performance syntactic materials and solutions for challenging environments including buoyancy, civil infrastructure, electronics, and insulation.

#### THOMAS MURRAY, CO-FOUNDER AND MATERIALS ENGINEER CMT MATERIALS INC. & ENGINEERED SYNTACTIC SYSTEMS

Thomas Murray is a co-founder of CMT Materials Inc. (1998) and Engineered Syntactic Systems (2005). He is a materials engineer with over 30 years of experience in the research and development of composite materials, including more than 20 years of experience in syntactic foams. He holds both a Bachelor of Science in chemical engineering and a Master of Science in plastics engineering from the University of Massachusetts at Lowell. Prior to starting the companies, he was employed with the Raytheon Corporation as the manager of the Composites Group in the Materials Engineering Laboratory. Thomas has also held materials engineering positions with WR Grace/Emerson & Cuming and the Army's Materials Technology Laboratory.

#### MICHAEL VIDAL, ENGINEERING MANAGER CMT MATERIALS INC. & ENGINEERED SYNTACTIC SYSTEMS

Michael Vidal is the Engineering Manager of CMT Materials Inc. and Engineered Syntactic Systems. He is a mechanical engineer with over 25 years of experience in the design and manufacture of mechanical and electro-mechanical products in the automotive, aerospace, and general manufacturing industries. He holds both a B.S. from Worcester Polytechnic Institute and an M.S. from the University of Rhode Island. Prior to ESS, he was employed as the Director of Engineering and Director of Quality at Nordson EFD. Michael holds 18 US and foreign patents.

### Upcoming Distinguished Seminars

 **Dave Medeiros**  
Senior Strategic  
Defense Analyst,  
Engineering Manager  
RITE SOLUTIONS  
September 12th @ 5pm  
URI: Avedisian Hall 240

 **Milt Stretton**  
President and COO  
SONALYSTS

**Bob Kurzawa**  
Vice-President  
SONALYSTS  
September 19th @ 5pm  
UCONN: Storrs Hall WW16

 **Naval Science & Technology Panel & URI Career Fair**  
4 TO 5 PANELISTS IN THE  
NAVAL SCIENCE &  
TECHNOLOGY INDUSTRY  
(TBD)  
October 3rd @ 4 to 6 pm  
URI: Avedisian Hall 240  
\*\*If there are more than 10  
UCONN students  
interested in attending this  
event, we will arrange  
transportation to URI

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