Metal Building Manufacturers Association (MBMA)
1300 Sumner Avenue
Cleveland, OH 44115-2851
www.mbma.com

NEWS
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Contact: Dan Walker
Assistant General Manager
Phone: 216.241.7333

MBMA Announces Grant Award Recipients

(MBMA: Cleveland, Ohio) In a groundbreaking educational initiative, the Metal Building Manufacturers Association (MBMA) is providing faculty fellowships in cooperation with the American Iron and Steel Institute (AISI). These awards will expedite development of a model program that partners the metal building industry with undergraduate engineering and architectural faculty and students. The fellowships will assist each selected faculty in developing a senior design class, referred to as a capstone course, with the focus on a metal building project.

Grant recipients are:
Dr. Justin Marshall - Auburn University
Dr. Ron Ziemian - Bucknell University
Dr. Mehdi Jalalpour - Cleveland State University
Dr. Michael Seek (w/ Mr. Nestor Escobales) - Old Dominion University
Dr. John Cleary - University of South Alabama
Marci S. Uihlein – University of Illinois School of Architecture

“Even though metal buildings account for approximately half of all nonresidential low-rise construction in the United States, most engineering/architecture students are not introduced to this form of construction as part of their formal education,” says W. Lee Shoemaker, Ph.D., P.E., MBMA’s director of research & engineering . “Our intent is to introduce metal building design and construction practices into the curriculum and foster an industry/academic partnership that provides real world experience for undergraduates.”

“This initiative has the ability to change our industry,” says MBMA Chairman, Tom Gilligan. “The more we educate future engineers, architects, contractors, and planners, the more they will recognize the beneficial attributes of metal building systems techniques. As we train the next generation of designers we can expect the industry to achieve even greater acceptance and market share.”

“MBMA will give the faculty who were awarded the fellowships the latitude to develop a program that works best considering their needs, and resources” says Shoemaker. “However, we are also interested in making the design experience as realistic as possible for the students. We would like this capstone to be more similar to a students' first job, rather than their last college course.”

With regard to the engineering curriculum, Shoemaker stresses that appropriate standards and multiple, realistic constraints within the capstone should prepare students for engineering practice in accordance with the expectations of the Accreditation Board for Engineering and Technology (ABET). “MBMA would like the model programs to address as many of the ABET Student Outcomes as possible,” he says.

ABET outcomes are:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- an ability to function on multidisciplinary teams
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- an ability to communicate effectively
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- a recognition of the need for, and an ability to engage in life-long learning
- a knowledge of contemporary issues
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

The selected university faculty will carry out the development of a capstone course at their schools in 2015-2016, then make adjustments and improvements to the program based on their experiences. The final product will be a model capstone course program that is a combination of the best ideas created by the grant recipients. The final program will be made available to colleges and universities nationwide in 2017.

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Founded in 1956, MBMA serves manufacturers and suppliers as it works to promote the metal building systems industry. Its membership represents more than $2.4 billion in annual sales and accounts for approximately 52% of the total non-residential low-rise construction market in the United States. The association provides a wealth of technical information on its website, www.mbma.com, for anyone who works with or is interested in metal building systems, and publishes numerous technical manuals and design guides.