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MET Professor Ismail Fidan to Attend FOEE Symposium

For decades, engineering education changed very slowly, still tied in to the days of slide rules and blackboard equations. By the 1990s, the headlong rush of technology changed all that. In a world with a growing need for people well versed in science, technology, engineering and mathematics, the National Academy of Engineering has established a prestigious Frontiers of Engineering Education Symposium. FOEE is designed to spotlight educators who have stepped up to this challenge with new approaches to prepare students for cutting-edge engineering educations.

FOEE candidates are elite engineering educators who have devised innovative approaches to engineering education in the form of projects, laboratory or classroom work, distance learning or hands-on experiential learning. This year, Professor Ismail Fidan from TTU's Manufacturing and Engineering Technology Department will be attending the FOEE Symposium in Irvine, Calif., in late October. Attendees for the symposium are a small number of engineering educators and selected on the basis of nominations, applications and project proposals which are then peer-reviewed.

"What I worked on is Service Learning Framework on Designing and Manufacturing the Future," said Fidan. "Student teams can pick a project, design it, build it and present it in my upper level courses. These kids are the future of our nation, and they can practice their learning in service learning projects.

"We give teams the chance to build a modular desk caddy or a solar energy-powered lamp using additive rapid prototyping technology or a periodic table chart using computer numerical control machining code so that they also support the local K-12 STEM education," Fidan said.

Fidan's idea for putting these cutting-edge design and manufacturing practices into the K-12 STEM education dovetails nicely with his research and teaching at TTU. Fidan's undergraduate teaching areas include applied machine design, rapid prototyping, computer aided design and computer numerical control; at the graduate level, he teaches industrial robotics, manufacturing systems integration and applied fluid power technology, among others.

Fidan is a 13-year faculty member at TTU, with many publications, externally-funded grant projects, and awards to his credit. He is currently on non-instructional leave with a fellowship from the Oak Ridge National Laboratory.



Ismail Fidan
Professor, Manufacturing
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