

CITATION OF
Renata Konrad
FOR THE
**Romeo L. Moruzzi Young Faculty Award
for Innovation in Undergraduate Education**

Over a five year period, Professor Konrad has worked to integrate and improve an ambitious, real-world project with industry partners in an undergraduate course on simulation modeling and analysis. The desire for change in this course emerged from her conversations with graduates who reported struggling to model complex problems they were encountering in the workforce.

To address the gap between theory and real-world problems, in each offering of OIE 3460 she has partnered with a client organization to introduce a project component in the course. For example, student teams have evaluated lab services at the Dana Farber Cancer Institute and proposed solutions to alleviate long patient waiting times. The course is also communication-intensive as teams prepare a proposal, final report, and an in-class presentation, all in a concise manner that can be understood by a non-technical audience. The team projects are independently evaluated by the client and Professor Konrad, balancing academic expectations with those of industry.

Students appreciate how the project develops skills, introduces them to simulation software, helps them manage projects in the workforce, and exposes them to non-traditional applications of industrial engineering. One student writes, “I enjoyed the real-world data we were given. It was nice not to have ‘cookie-cutter’ data where the solution was simple.” Another writes, “Framing the entire learning process around the project was an innovation that grounded a field that seemed intimidatingly theoretical in a way that made sense.”

Professor Konrad regularly collects feedback about the projects from both students and clients and uses that to improve the learning process and project outcomes. Discovering that this course design is unique in industrial engineering education, she has also published her course model in a peer-reviewed publication.

For her embodiment of WPI’s tradition of theory and practice in the Industrial Engineering curriculum, and for her efforts to both challenge and support students to address ambiguous real-world problems, we are proud to present the 2018 Romeo Moruzzi Young Faculty Award for Innovation in Undergraduate Education to Professor Renata Konrad.

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