Reevaluating the Professionalization of Engineering Faculty

College of Engineering

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News Release — LOGAN, UTAH — Dec 10, 2018 — An engineering education expert is encouraging institutions of higher education to reevaluate the professional experience of engineering faculty, specifically women professors.

Utah State University researcher Idalis Villanueva, an assistant professor of engineering education, led an innovative new study aimed at understanding the hidden factors that affect up-and-coming professionals on their pathway to a career in academia.

Dr. Idalis Villanueva published new findings in Education Sciences about the professional experience of engineering faculty.

The study, “There is never a break”: The hidden curriculum of professionalization for engineering faculty, was published in Education Sciences on Sept. 22. The goal of the research was to explore the issues that impede professionals from being impactful in their research, teaching and service. Many of the factors identified in the study are what Villanueva and other experts call hidden curriculum.

“Hidden curriculum is unwritten, unofficial, unintended values, lessons and perspectives that are present in an academic setting or work environment,” said Villanueva. “If you have ever said ‘that is common sense,’ or have been told, ‘you should have known that,’ then most likely you have experienced hidden curriculum.”

Villanueva collected 55 faculty responses from 54 institutions in the United States. The institutions represent a range of engineering schools with varying degrees of research productivity including high research activity, medium research activity, lower research activity and master’s and bachelor-granting institutions of higher education. Villanueva says preliminary results suggest many are struggling to meet the increasing demands of being an effective faculty member while maintaining a healthy life outside of academia. One of the key findings in the study is that gender and institution type can be major factors on a professor’s career.

“We found that many of the women faculty were overworked, under-appreciated and continually had to justify their role and existence in the classroom and among their colleagues,” said Villanueva.

She added that women faculty said they had experienced different treatment compared to men and have different expectations in their work. This can lead to personal consequences including frustration and exhaustion.

Given the need to understand the factors that prevent professionals from being effective in their research, teaching and service, Villanueva says there is need to further examine the underlying hidden messages conveyed by the faculty members in this study.

“In our study we found that faculty from high research activity institutions shared a lot of the perspectives and views about their professional roles that faculty from master’s-granting institutions had,” she said. “This was surprising as we would have expected high research activity institutions and medium research activity institutions to be closer in views to each other.”

The research is still in its early stages, and Villanueva suggests that similar types of studies are necessary at different institutions.

“From this work we are also starting to find the need to explore how institutional resources are being used to respond to the different intersectional experiences of faculty,” said Villanueva.

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