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From the Editor

This issue focuses on innovation and entrepreneurship. It contains a guest editorial from Phil Weilerstein (CEO of VentureWell) and Tom Byers (Professor and Director of the Stanford Technology Venture Program), two individuals, who through their involvement with the NSF funded Pathways to Innovation Program, are due much of the credit for the engineering education community's recent interest in innovation and entrepreneurship. Their editorial provides important background relative to that current interest including the organizations behind it. The main body of this issue consists of eight peer-reviewed articles that present the current state-of-the-art of entrepreneurship education within engineering programs. Taken together they provide faculty and administrators interested in introducing or expanding innovation and entrepreneurship programs with the background literature, models, and assessments needed to be successful. Also included are two articles on Social Entrepreneurship – an important, and also expanding part of the field that is especially attractive to underrepresented minority and women students.

As described in the paper by Mary Besterfield-Sacre, Sarah Zappe, Angela Shartrand and Kristen Hochstedt, interest in innovation and entrepreneurship among engineering faculty is a very recent phenomena. They cite ASEE's important study (led by Jack Lohman and Leah Jamison) *Innovation with Impact: Creating a Culture for Scholarly and Systematic Innovation in Engineering* (2012) that found from a survey of faculty from 110 different departments across 72 engineering schools that incorporating entrepreneurship into the engineering undergraduate curriculum was generally not valued. Specifically, at the undergraduate level, 52% of respondents indicated that entrepreneurship was "not important to an engineering curriculum." At the graduate level the percentage was even higher. Besterfield-Sacre and her colleagues go on to report that a second study by Stanford's Epicenter program that surveyed 144 engineering faculty and administrators from 90 institutions found that entrepreneurship was not widely practiced, although there now was "overwhelming interest in increasing elective courses and extra-curricular activities and [respondents] believed that entrepreneurship should be included in the core curriculum of engineering."

The paper by Nathalie Duval-Couetil, Angela Shartrand and Teri Reed strongly support the anecdotal evidence that interest in innovation and entrepreneurship is increasing sharply among engineering programs. As a result, students are being provided with a number of alternatives both inside and outside the curriculum. Their paper describes three different models for accomplishing this. A major boost to this growth has been the Stanford-VentureWell Pathways program led by Byers and Weilerstein that now has expanded to 50 participating engineering programs across the

country. This is an exciting time for those interested in providing students with another career option – entrepreneurship and start-ups - to complement industry, government, medicine, law, research and academia. Happy reading!

REFERENCES

American Society for Engineering Education (ASEE). (2012). *Innovation with Impact: Creating a Culture for Scholarly and Systematic Innovation in Engineering Education*. Washington, DC: American Society for Engineering Education.