A crisis in power systems education

Over the past 25 years, power systems programs have almost disappeared from US universities. Demand for new engineers in the power industry had been reduced through increased efficiency, but much of the power engineering workforce is now approaching retirement age, and companies that generate or consume electric power are struggling to find engineers with adequate education in power. In Utah, the situation is no better than elsewhere: none of the Utah universities offers a program in power systems.

Plan to rebuild a power systems program in Utah

The Department of Electrical and Computer Engineering at the University of Utah is interested in rebuilding its power systems program. The current curriculum includes many relevant courses, including Control of Electric Motors, but to establish a strong power program, we would need to add courses, including Power Systems and Power Electronics. At this point, no faculty member in the department has the expertise to teach these, so a new faculty member would need to be added to reestablish the program.

Campaign for a power systems program

The Department of Electrical and Computer Engineering is prepared to use one of its new positions, funded through the Engineering Initiative, to hire a faculty member in Power Systems. However, in order to establish the program (equip laboratories, etc.) so that such a faculty member can be successful, the Department needs to raise approximately $250,000. Several companies have approached the department recently, expressing their critical need for engineers trained in electric power. We hope that those with the greatest needs and resources will support our effort through cash donations. If the needed funds are raised, we will proceed with the recruitment of the new faculty member, establish the Power Systems Program and graduate the first students as early as May 2009. Contributors to this effort will be invited to participate as advisors in the development of the program.

Long term objectives

In the long term, we hope to establish a broader collaboration between industry and the University of Utah, which will foster industrially-relevant development of the curriculum, a greater availability of electrical engineering graduates with appropriate skills and joint R&D activities.

If you are willing to participate or would like more information, please contact:

Marc Bodson, Professor and Chair
Department of Electrical and Computer Engineering
Tel.: (801) 581 8590
E-mail: bodson@ece.utah.edu