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For a number of reasons I have been thinking quite a bit lately about the role of universities in maintenance and reliability professional development.

One, our school, The University of Tennessee, is rapidly moving forward with new programs at the undergraduate and graduate levels in maintenance and reliability. Two, the Society for Maintenance & Reliability Professionals (SMRP) Board of Directors, with Scott Kelley as the academic liaison, is implementing aggressive plans to make more universities aware of the need for their involvement.

Three, we at UT are receiving more frequent calls from company recruiters looking for graduating students who might be maintenance and reliability professionals. Four, I had contact with the recent 2005 Reliability and Maintainability Symposium where several universities were in attendance, although these universities appear to be more product quality oriented.

By coincidence, I looked back and noted that my very first article on professional development in this magazine was entitled “The Role for Universities in Maintenance and Reliability Education.” I wish I could say that since then maintenance and reliability education has become a well-established field in many major universities.

Unfortunately, only limited progress has been made and there is much yet to do. Maintenance and reliability education and professional development is still being offered by only a very few universities, and much of what is offered is through their continuing education departments—not their engineering or business colleges. The bulk of education and training is continuing to be provided by those outside of academia—by companies and suppliers.

As I said in the 2002 article, U.S. universities have traditionally shied away from education and research in the area of industrial maintenance and reliability. Many academic institutions have excellent capability in statistics, probabilities, and other mathematical approaches to the science of reliability, and in particular, product reliability. But most have largely ignored the more practical areas of industrial reliability and maintenance.

Companies that have come to realize the importance of having excellent maintenance and

reliability capabilities in their organizations are forced to take graduates from traditional disciplines and spend multiple years developing and equipping them with the requisite knowledge. This effort is in addition to the time required to imbue the other basic knowledge specific to the individual's company, processes, and equipment.

This whole process is fairly inefficient and limits the company's return on their human investment in the people involved. And unfortunately, this on-the-job training is often conducted by employees who have already been ingrained with the "maintenance is a necessary evil" philosophy, thus compounding the problem.

As I mentioned, I am receiving ever more frequent inquiries from people looking for maintenance and reliability engineers. I'm quite sure that I am not the only one receiving such calls. In the long term, this growing demand for these type graduates will undoubtedly drive universities to develop appropriate programs to meet the needs.

But can we afford to wait for the long term? The growing international competition that most companies face suggests that we should not wait for the long term. Many companies are already developing internal curriculum and classes, or purchasing them from outside suppliers.

However, this doesn't solve the basic problem; it merely prolongs it. We need to have universities recognize the value of maintenance and reliability education now and to develop programs to prepare students with the knowledge and skills they need to move into industry and immediately start making significant contributions.

This is where you, the reader, come in. Universities need to hear from you and others about the need for graduates with maintenance and reliability knowledge. Universities need to know that there are good jobs in industry to attract students into such programs.

To help in this area, SMRP is preparing to conduct a survey of industry needs for these type graduates in order to present the business case to universities. You can certainly help by participating in that. But you can also make your voice heard by talking to the deans, department heads, and individual faculty at your nearby universities. You can make sure that they understand that the demand is real—and urgent. **MT**

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