

NARTE Should Advocate Full Utilization of Technicians

by Glen W. Spielbauer

While some technicians are fully utilized in “quasi-engineering” roles in the more progressive companies, other technicians may be limited to simple testing, assembly or repair.

Associate degree programs in electronics now cover a lot of the same high level math and theory as engineers have (just in a more applied manner). Many programs have an introductory applied calculus class, and some programs even cover Fourier and Laplace transforms as applied to circuit analysis. The following was submitted to the Electronics Technicians Association, International (ETA) and can serve as guidelines for NARTE and companies who employ telecommunications technicians:

The recognition and full utilization of technicians must be the top priority of all managers and engineers. Community colleges and technical institutes are the institutions of the future, not the elitist four-year universities. This is what congress stated when it passed the \$125 million Tech Prep bill in the 1990s.

The role, status, pay, educational qualifications, and expertise of electronic and telecommunications technicians have soared during the past 20 years. They are the “gold collar” workers of the future who are propelling our nation’s high tech industry to first place in the world economy. While technicians were in the past regarded as just “assistants” with inconsistent recognition, they are now regarded more and more as full professionals, along with engineers and computer specialists.

For example, most technicians today are graduates of advanced two-year associate degree programs from community colleges and technical institutes. These programs provide much of the high level theory and math as in four-year engineering degree programs – just in a more applied manner. For example, Eastfield College in Mesquite, Texas (a suburb of Dallas) offers an associate degree in Electronic Telecommunication and Wireless. Topics include digital and analog electronics, RF circuits, microprocessors, and software. Other related associate degree programs in community colleges cover advanced topics, including amplifier design, digital logic, microprocessor design and programming, and laser systems.

What you must do

When hiring technical people, first consider a technician. They often have special expertise beyond many traditional four-year degreed engineers, especially in advanced manufacturing, robotics, CNC programming, and quality assurance. Technicians from a two-year associate degree program that specializes in Telecommunications and RF electronics are especially suited for field service.

Involve technicians in high level design, not just testing, repair and troubleshooting. (Design work may need review by a registered professional engineer, depending on state requirements.) If your group does not do much design, technicians should play an active role in sales, training customer support, applications assistance, and technical writing.

They are also ideal in defining test procedures, supervising production workers, and as a vital link between manufacturing and marketing.

Explore the technical programs at your local community college or technical school. Talk with the instructors and visit the training labs. You may be surprised by the advanced level of the program. Your company can provide money, advisors, or part-time instructors.

Be involved with technician development. Give your technicians high level challenging assignments that overlap with engineers. Be involved with ETA (www.eta-i.org) and the National Coalition for Electronics Education (www.ncee-edu.org).

Technicians are your company’s greatest asset

You as a technology manager or engineer enable your enterprise to soar to new heights when you give your technicians the highest level of professional recognition and utilization.