GUEST EDITORIAL

LONG ON HIGH TECHNOLOGY — SHORT ON HIGH TECHNOLOGISTS

Donald Zook
President, SME

At the present time, technology seems to be moving faster than our ability to educate people in its utilization. This is particularly true of the manufacturing engineering profession.

For example, enormous progress has been made in the area of CAD/CAM. Hardware to support computer graphics has been developed and designed with amazing speed. In the last five years, the microminiaturization of electronic components has increased the power of these units beyond our wildest dreams.

Software development has kept pace with the progress in hardware. Computer programs and advanced computer graphics have been developed to help us design, test, and process parts. The potential of this technology is enormous.

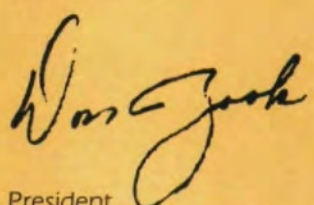
Unfortunately, the technical education of our engineers has not developed at the same pace. Since design, testing and processing were formerly done by numerous individuals from different disciplines, it is difficult to find a single individual who can perform all of these functions utilizing CAD/CAM. Consequently, while the technology is available, the qualified individual to make the best use of the technology is not.

We are able to provide assistance in some areas through the application of artificial intelligence or canned knowledge, so that a given individual does not have to be an expert in every field, but this support is not enough. Such assistance has not developed at the same pace as the technology itself; furthermore, such dependence on artificial intelligence is no substitute for the solid training of talent.

In both academic circles and in the industry, we must become more aware of the need to put the same emphasis on the development of our people as we have put on the development and installation of tools. Unless we can provide products that perform to the satisfaction of our customers in terms of function, durability, and cost, they will go elsewhere. Without utilizing all of the talent, as well as the technology at hand, we will not remain competitive in today's market.

In short, we must become equally long on high technologists.

Donald Zook



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MR. DONALD ZOOK, *is President of the Society of Manufacturing Engineers (SME). He is presently employed as the Assistant Director of Manufacturing for the Caterpillar, Inc. in Peoria, Illinois. A member of SME since 1967, Mr. Zook has chaired several international committees, including a special Battelle Study entitled "The Manufacturing Engineer — Past, Present, and Future." Zook earned BS and MS degrees from the University of Illinois and is a past instructor at Bradley University. He is a registered Professional Engineer (PE) and a Certified Manufacturing Engineer (CMfgE).*