

Back to School

A new alliance among ISA, the Automation Federation, and *FIRST* is another salvo in the long and difficult battle to increase the number of science and math graduates.

By David R. Brousell

For quite some time, it has been known that the United States isn't producing enough people educated in mathematics and science. The effect of this shortage shows up in a number of ways, including in the industry's ability to find qualified workers and in the nation's immigration policies. Right now, there are jobs available in U.S. manufacturing companies that aren't being filled because companies can't find people with the requisite skills.

Manufacturing, of course, has become much more high-tech than most people realize. But the math and science skills shortage problem runs much deeper than the current employment picture. For manufacturing, the root of the issue goes to unflattering perceptions about the industry and the careers it offers. On a broader scale, the United States has simply come up short when math and science graduate rates and overall volume are compared with those in such countries as China and India.

This is not to say nothing can be done to influence the trend. Organizations including the National Association of Manufacturers and its Manufacturing Institute, the Automation Federation, and others have worked hard to develop and drive programs to encourage more young people to obtain math and science skills and to consider careers in manufacturing. One project, the Southeast Indiana Dream It. Do It. Campaign, backed by NAM, emphasizes the STEM (science, technology, engineering, and math) approach. Dream It. Do It. won this magazine's 2009 Progressive Manufacturing High Achiever Award in the Education and Training category.

But these organizations would be among the first to acknowledge that much more can and should be done. In that spirit, a new effort to encourage school children to take up math and science is being mounted by the International Society of Automation, the Automation Federation, and *FIRST* (For Inspiration and Recognition of Science and Technology), founded by inventor Dean Kamen and well-known for its annual robotics competitions.

ISA, the Automation Federation, and *FIRST* have been working on an alliance partnership that will emphasize STEM among young people from age 6 to 18 and help promote careers in automation. The three organizations were expected to complete a memorandum of understanding last month that will outline objectives and plans to recruit new volunteers, mentors, and sponsors, and promote the work of *FIRST*.

Mike Marlowe, director of government relations at the Automation Federation, says the three organizations will co-host a number of events, beginning with the ISA Automation Week Oct. 4-7. *FIRST* will be included in an Automation Career Day event scheduled for Oct. 8. Marlowe says his hope is that the alliance will drive thousands of kids into the science and math fields.

Whatever the number turns out to be, the efforts of these three organizations to alter the trend line in math and science education in the United States — and, by extension, the prospects for manufacturing in the years ahead — must be applauded. But we all can do more.

One of the first things any manufacturer can do is get involved with the Automation Federation and ISA. The ISA conference next month in Houston will feature a talk by Kamen. Also, *Managing Automation's* sister publication, *Manufacturing Executive*, has just launched a new manufacturing community whose mission includes helping to develop the next-generation workforce. You can find out about this new community by going to www.manufacturing-executive.com.

If you have any other ideas on how to fix the math/science problem, write to me at Dbrousell@thomaspublishing.com.

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