Encouraging young talent

How about a bit of math and science...?

As the "MINT ambassador" at Siemens PL, Armin Gittinger aims to get young people excited about technology



Smoking tires, gripping races: When it comes to excitement, "F1 in Schools" can definitely keep up with Grand Prix.

Armin Gittinger is a man with a mission and a conviction. His mission is to get young people excited about technology - including math, physics, computing and other scientific subjects. His goal is to ensure a reliable future supply of new recruits for technical careers in times when there is a shortage of engineers and researchers.

"The image of subjects such as mathematics, IT, natural science and technology, or MINT (a German acronym for "Mathematik, Informatik, Naturwissenschaften und Technik"), is pretty poor. Math is seen as the No. 1 killer subject and IT is just too difficult for some pupils," Gittinger, the MINT ambassador at Siemens, explains. "That means that many avoid studying anything that is in any way technological at university." In addition to their bad image. there is also a lack of knowledge about the career prospects for

which such subjects equip students for - engineering, for instance. This has dire consequences for the economy. In Germany alone there is a shortfall of over 60,000 technical specialists, costing the economy about €20 billion each vear.

This was why the "MINT - Zukunft schaffen e.V." initiative was brought into being by German businesses, in order to unite companies and other smaller initiatives and make a concerted effort to recruit young people. The MINT ambassadors are part of this initiative. Their job is to familiarize children and young people with various careers such as that of a researcher or an engineer and so try to encourage an enthusiasm for technology. The youngsters can interact with them and find out more about technical careers. To meet the rising demand, the number of MINT ambassadors is to be increased from about 3.600 present to 10,000 by 2015.

The ambassadors give youngsters an insight into everyday working life, but most importantly, they pass on their interest and enthusiasm for their area of specialization. The best way of accomplishing this is by running competitions. Armin Gittinger is an organizer of the "F1 in Schools" competition. This proj-



ect began in England eleven years ago and is now taking place in Germany for the fifth time. Anyone aged between 11 and 19 can take part, irrespective of what kind of school they attend.

"F1 in Schools" uses the fascination of Formula 1 racing to motivate participants and is both

The school competition "F1 in Schools"

In the international and multidisciplinary competition "F1 in to develop a miniature Formula 1 racing car using 3D CAD software and then make a balsa wood model of it on a CNC milling machine.

These cars, about 20 cm long and powered by gas cylinders, then compete in regional contests racing each other along a 20 meter racing track. The winning team then goes on to represent Germany in the "F1 in Schools" World Championship, which is held before a Grand Prix race each vear.

However, speed isn't the only deciding factor when it comes to deciding on the winner. What is

is the overall design, production, reaction time, car speed, business plan and

harness the great global presence of Formula 1 racing in order to give young learning experience. The contest gives them a better understanding and insight into the world of product development, technology and science and shows them the potential of technological careers.

multidisciplinary and international. "The competition demands a number of different technical and organizational skills and abilities from participants," Armin Gittinger emphasizes. "They develop a racing car in teams, using technology from Siemens PLM Software to design and build it.

We want to get young people excited about

Armin Gittinger, the MINT ambassador at Siemens

Solid Edge ST is used to design it and CAM Express for pre-production."

"In addition to these technical skills, the participants also learn a variety of key skills such as teamwork, presentation techniques, a basic understanding of economics and customer orientation, as well as assertiveness," Gittinger continues. "I'm pleased to say that the proportion of female participants is around 40%, in contrast to other technological projects."

The competition also stands out thanks to its practical relevance and its interdisciplinarity, which allows the participants to put the theory they have learned at school into practice immediately - a concept that teachers are thrilled about, too.

"The project has been a great success and the number of teams for the 2010/11 season has risen to almost 150," Gittinger adds proudly. "After having come in third in the world championship last year, the German teams stand a good chance of taking the title in 2011."

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