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N O T E

Focused on the future

The future of engineering is a rather ambitious topic that we've narrowed down to two of the most rapidly developing and exciting areas that will drive engineering into the future: nanotechnology and education.

Engineering education has come a long way indeed. The five schools that we've profiled (p. 46) offer anything but run-of-the-mill engineering educations. And this, of course, is producing anything but run-of-the-mill engineering graduates. What's common to these programs is that they're forcing students out of their comfort zones. While nobody can predict which skills future engineers will need, educators are adopting innovative approaches to educate their students to expect the unexpected. The result?

Well-rounded graduates who will be able to take on our rapidly changing world with confidence.

Part of that changing world will include nanotechnology, a branch of science which will undoubtedly have a profound impact on engineering (p. 52). But it's anybody's guess as to what that impact will be exactly. Already, there are the cool products—everything from sunscreens and stain-repellent fabrics, to synthetic bone and extra-bouncy tennis balls—developed using nanotechnology. But even though it's been 40-odd years since Richard Feynman gave his classic talk, "There's Plenty of Room at the Bottom," nanotechnology is still in its infancy and very much an unknown quantity.

A few months ago, I read Michael Crichton's *Prey*, an unnerving novel about the accidental release of swarms of nano-engineered, self-replicating organisms that develop a taste for small mammals and, ultimately, humans. While this is obviously a work of fiction, the point is that we don't have any idea where this technology could lead and, as a regulator, PEO is monitoring this, and other emerging technologies, closely.

It's been said that you can't know where you're going unless you know where you've been. Since this issue marks the 25th anniversary of *Engineering Dimensions*, it's appropriate to take a look back at some of the topics that have appeared in our pages since our launch (p. 58). It's interesting that some of the challenges that faced PEO and Ontario's engineers years ago are surfacing again. Interference of the government in PEO's regulatory status comes to mind.

History isn't likely to repeat, however, thanks to PEO's new government communications program, which is already spurring active dialogue between engineers and policymakers (p. 12, also March/April, p. 14). Another step in the right direction is PEO's recently approved 2005-2009 strategic plan (p. 56), which provides a new vision for PEO.

It wouldn't be appropriate to close without mentioning Alex Kobelak, P.Eng., a former PEO President, and chair of the Editorial Board, who cleared the way for the launch of *Engineering Dimensions* 25 years ago (p. 61). Thanks in large part to his efforts, an independent publication that properly represents PEO was born.

I hope you enjoy the glimpse into the future we present this issue, and continue to enjoy *Engineering Dimensions* as we head into our next quarter century.

Jennifer Coombes
Managing Editor