

## **Ethics in Engineering: Ethical Dilemmas**

**2011 April 13**

In a well attended seminar sponsored by the Long Island Section's SSIT, PACE (Professional Activities Committees for Engineers), and the LM Affinity Group, the topic of ethics in engineering was probed in some depth. Don Christiansen, an IEEE Fellow and Editor Emeritus of IEEE Spectrum, moderated the open discussion. He presented several actual case histories, and invited analysis by the attendees, asking "What would you have done?" Among them was one touching on the issue of corporate espionage, and another in which a high-volume production line was "staged" in order to impress a potential customer to design the still experimental device into a new product of its own. A lively discussion followed, and attendees described sensitive situations in which they had been involved or which they had observed. Many of these dealt with disagreements among group leaders and their managers on the factors to be considered in dismissing or transferring an engineer in their employ.

Christiansen suggested that a difficult engineering decision may have elements of ethics, morality, and the law. Ethics and morality are often deemed identical, but he noted that ethics often implies conformity with the specific expectations of the members of a particular profession, business, or governing body, whereas morality implies conformity with the generally accepted standards of goodness in conduct of members of an entire culture (e.g., a country or a religion). And the law, while more definitive than either, is both time and jurisdiction sensitive. Thus it may be useful, when searching for the best option in a sticky, complex situation, to view its moral, ethical, and legal components as circles in a Venn diagram, Christiansen noted.

Ethics are also profession and organization sensitive. What may be ethically significant to engineers may not be of concern or even applicable to lawyers, or to corporate executives. The ethical issues may even differ from one engineering discipline to another.

Ethics may also be in contention with other issues, like corporate profitability or even survival. and with global competitiveness and national security.

The meeting closed with suggestions that future meetings on ethics in engineering be held. Among the possible topics are "Ethics and Risk Analysis", "Ethics and the Law", "IEEE's role in supporting Ethical Behavior", and "Engineering Ethics at the University Level". The sponsors of this seminar welcome your inputs.

### **Seminar Coordinators:**

Vic Zourides, Chair of the IEEE Society for the Social Implications of Technology, LI Section

Ahmed Haque, Chair of the Professional Activities Committees for Engineers, LI Section

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