

Captured by a tangent

One day, early in my college career, my Circuit Analysis professor, an enthusiastic man prone to tangents, managed to turn some ho-hum circuit analysis review into a half-hour explanation of the obstacles faced in current microelectronics research.

“Electronic components are getting small enough that quantum mechanical effects are beginning to dominate, and devices no longer behave the way they’re supposed to,” he announced. Then he told us that in order to continue producing smaller, faster computers at the current breakneck pace, researchers must develop a technology that is completely new—probably based on the same quantum mechanical effects that cause the current technology to flounder.

Until then, I had thought of computer engineering as my career path and physics as my hobby: never the twain will meet. Suddenly, here was Dr. Hendricks telling me that they had not only met; they had met, married, and started a family. “It will be a paradigm shift,” he continued, “and you’ll be the ones to shape it.”

Today, I can’t remember if I shivered my way to class under two jackets and a sweater or ambled, sweating under the hot sun. I can’t remember if it was late morning and I was eager for lunch, or if it was late afternoon and I was ready to go home. I can’t remember if I was a bright and eager freshman or a self-assured and all-knowing sophomore. The details of that class and that day are lost in murky memories of the Far Distant Past, but I can remember with absolute clarity listening raptly to my professor’s words and thinking to myself, “*That’s* what I want to do.”

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