

## Ken Voisine: At the Crossroads of Business

This spring, PHOTON2 spoke with Ken Voisine, Engineering Manager at JDS Uniphase in Bloomfield, Conn., about his educational and career path.

Voisine studied with Co-Principal Investigator Professor Nick Massa at Springfield Technical Community College (STCC) and is now a member of PHOTON2's National Advisory Committee. His career illustrates the many possibilities opened by a background in photonics science and technology.

Voisine started early in engineering. Born into what he calls a "hands-on family," Ken would spend time in his engineer uncle's workshop learning to tinker with lawn mowers, cars, anything that had circuits and switches. It was hardly a surprise, then, when he decided to attend a vocational school and focus on electronics.

When he enrolled in an associate program in Electronic Engineering Technology (EET) at STCC, he found that the vocational school education "gave me a significant leg up on the other students." It was there, across the hall from the Laser-Electro Optics program at STCC, that he became fascinated with photonics. He found the new field so exciting that when he finished his EET program he turned around and went right back for a second degree in optics.

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Voisine later went on to complete his bachelor's at the University of Hartford, which had recruited him to enter its program in photonics technology. He studied nights at Hartford while working for United Technologies during the day, a difficult but ultimately rewarding route.

"People ask why I didn't just go for a bachelor's right off," he says. "Although community college and night school was a more difficult path, the benefit was that I was in the field while I was learning about the field."

Voisine started at United Technologies as a research engineer, but after five years in that position, his career took a new and satisfying turn: he was transferred from research to operations. Suddenly instead of focusing on the details of a few prototypes, Voisine was overseeing the entire development of a product from initial request to final roll-out. In the process, he learned a tremendous amount about business. Since then, his taste for operations has guided him into engineering

management. He now oversees several teams of engineers working in areas like product development, process control and on the production floor—giving him a "soup-to-nuts overview of the engineering process." For someone who has spent his whole life playing with any technology he could get his hands on, it's the perfect job.



Ken Voisine of JDS Uniphase.

"On an average day," he says, "I take input from the marketing department about what the customer wants, and then I look at the products we're developing to see how well they meet the customer's needs. I make sure all the different departments are in synch for product introduction into the marketplace." Departments are usually working on a few products at once, so development processes need to be carefully managed to make sure the work is done on time. Voisine describes himself as a "maitre d'," or as a conductor of an orchestra—"I may not play an instrument, but I make sure everyone stays in tune."

In such a role, Voisine's lifelong pursuit of engineering once again gives him a leg up. "Knowledge of engineering lets you ask the right questions and guide development more effectively," he says. "You're better positioned to help people think about problems in a different light."

For young people interested in photonics careers, Voisine recommends the tried and true. "Have a solid understanding of basic math and physics," he urges. "Technology changes all the time, but not the basics. If you know those fundamentals you'll be equipped for whatever changes come along." The photonics industry is growing rapidly, he believes. Areas such as medicine and aerospace have shown sustained growth, and even telecom has reawakened recently. In all of this, Voisine sees an opportunity for young would-be engineers who pursue associate or bachelor's degrees in optics. With the right skills, he says, students could look forward to a wide variety of careers. ■

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