Prof. Peter R Herman

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Peter R. Herman received the B.Eng. degree (1980) in Engineering Physics at McMaster University. He earned MASc (1982) and PhD (1986) degrees studying lasers and diatomic spectroscopy in the Physics Department at the University of Toronto that followed with a post-doctoral position at the Institute of Laser Engineering in Osaka University, Japan (1987) to the study of laser-plasma physics and x-ray lasers. He joined the Department of Electrical and Computer Engineering at the University of Toronto in 1988 where he holds a full professor position. Professor Herman directs a large and collaborative research group that develops and applies laser technology and advanced beam delivery systems to control and harvest laser interactions in new frontiers of 3-D nanofabrication. Our mantra is: "*We begin with light and we end with light devices.*" To this end we are inventing new methods for processing internally inside optical materials that carve out highly compact and functional lightwave circuits, microfluidics, optofluidic systems, biophotonic sensors, and smart medical catheters. Our end goals are inventing new manufacturing processes and extending optical device and Lab-on-a-chip concepts towards more compact Lab-in-a-fiber and Lab-in-a-film microsystems. Professor Herman is OSA fellow, holds several patents, spun out one company (FiLaser), and has published over 300 papers in journals and conference proceedings.

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