

Materials, Processes and Integration Strategies for Polymers in Bioinspired and Biomimetic Applications

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Computer Science & Engineering building room # 1202

Abstract: Bioinspired engineered products are becoming increasingly popular in academic and industrial uses from the nano to macroscale. In this talk, I cover some of my past and current work on development and integration of bioinspired materials and applications based on gecko adhesives, reconfigurable soft robots, and gradient and composite based 3D printing that blend hard and soft polymers with metals for direct integration of stretchable electronics. Opportunities for the future use of soft robotics in the manufacturing field will also be highlighted.



Dr. Sameoto has over 15 years' experience in manufacturing technologies with an initial focus on microelectromechanical systems (MEMS) followed by adaption of rapid prototyping polymer technologies for MEMS and microfluidics and now general focus on all aspects of microfabrication using polymers. Since joining the University of Alberta in January of 2010, his research focus has been in novel microfabrication technologies using polymers including integration of nano-micro and macroscale fabrication technologies in single applications and efficient and effective rapid prototyping. He has over 50 papers and 5 patents filed/awarded on the fabrication processes he has developed for polymers and micromachining.

Hosted by Mike Tolley

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