Research in Action

Imagine an evening at your favourite club. Now imagine using your cell phone to search the DJ's playlist and send a request for a special song. Dr. Pawan Lingras and his team do more than imagine. They design and develop prototypes to make it happen.

A professor in the mathematics and computing science department at Saint Mary's University and Director of the Saint Mary's M.Sc. in Computing and Data Analytics, Dr. Lingras works closely with the University's Office of Innovation and Community Engagement to capitalize on the dramatic upswing in data-analytics. He and a team of Saint Mary's University computer scientists and students receive regular funding for research and commercialization projects from the Natural Sciences and Engineering Research Council, the National Research Council-Industrial Research Assistance Program, and Mitacs, a Canadian organization that funds research and training.

"Collaborating with other researchers is one of the most gratifying aspects of the research," says Dr. Lingras. "Dr. Sageev Oore and I regularly combine our machine learning and interface design expertise."

In addition to designing a user interface for Backdrop, a music platform created by a Halifax company to connect DJs and club patrons, Dr. Lingras is working with a shoe store to investigate the different 3D technologies and printing options available and compare them to the company's needs.

"There's tremendous potential in using statistical techniques and predictive analytics to extract value," says Dr. Lingras. "By mining and manipulating data, we can help companies grow and make faster, better decisions."

Dr. Lingras is currently working with Dr. Oore on a variety of ventures that support innovative businesses in Atlantic Canada. One of their joint projects received a Nova Scotia Productivity and Innovation grant to proactively partner with Dartmouth-based SimplyCast, a marketing automation company owned by Saint Mary's alumnus, Saeed El-Darahali. By mining usage statistics to restructure the user interface, Drs. Lingras and Oore hope to take maximum advantage of SimplyCast's software.

In other team projects, Dr. Lingras is collaborating with Missing Link Technologies Ltd., a Data Center Infrastructure Management company in New Brunswick, to develop software that bridges the gap between Information Technology and physical data facilities. In Nova Scotia, he is also involved with PACTA, a cloud-based, contract management platform that automates the extraction of key information and proactively notifies management by email and text before important contract dates.

"It is always satisfying to help take businesses to the next level," says Dr. Lingras, "but the PACTA relationship stands out because we were able to connect the company with one of our students, Gaurav Rao. Because of this connection, Gaurav is now employed full-time with PACTA, using skills and knowledge he attained in computer science classes at Saint Mary's University. As a teacher, I can think of no greater reward."