BCWS Seminar Series

How Easily Can We Find Our Way Without a Map?

by

Professor Prosenjit Bose
School of Computer Science, Carleton University

Time: Tuesday, November 29, 1:30 - 2:30 pm
Place: Room ME 4356, Mackenzie Building, Carleton University

Abstract: Computing a path between two vertices in a graph is a fundamental problem that has been widely studied in the literature within various contexts and settings. There are many different algorithms for computing such paths depending on the type of graph as well as the type of path one is searching for. In this talk, we review some results on what can be said about computing paths when the underlying graph is a geometric graph (i.e. vertices are points and edges are segments) and one only has local information (such as knowledge of the vertices adjacent to the current position and location of the destination). We highlight some of the things that can and cannot be done based on the properties known about the underlying graph.

Biography: Prosenjit Bose received his B. Math (1990) and M. Math (1991) in Computer Science and Combinatorics from the University of Waterloo, Canada. He completed his Ph.D. (1994) in Computer Science at McGill University, Canada, where he received the D.W. Ambridge Award as the outstanding Ph.D. graduate. Currently, he is a Full Professor at the School of Computer Science and the Associate Dean for Research in the Faculty of Science at Carleton University, Canada. He has received several research and teaching awards. His main research area is applied geometric computing. He has published over 200 journal and conference papers in this area.