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The Department of Automatic Control & Systems Engineering
is pleased to announce the following seminar:

Machine Learning Methods in Cancer Biology

Professor Mathukumalli Vidyasagar

*Erik Jonsson School of Engineering & Computer Science
The University of Texas at Dallas*

Thursday, 26th September 2013 at 11:00

LT02, Sir Henry Stephenson Building

Abstract

Cancer is the second leading cause of death, both in “advanced” countries as well as “developing” countries, accounting for 13% to 15% of all deaths. One of the main challenges in cancer is that no two manifestations are alike, making it necessary to develop personalized therapies for that are narrowly focused on specific groups of patients. It is shown in this talk that methods from probability, statistics and machine learning are very useful for this purpose. Two case studies from ovarian cancer and endometrial cancer are used to illustrate this point.

Mathukumalli Vidyasagar was born in Guntur, India on September 29, 1947. He received his B.S., M.S. and Ph.D. degrees in Electrical Engineering, all from the University of Wisconsin, Madison. After finishing his Ph.D. in 1969, he taught for the next twenty years mostly in Canada, before returning to India in 1989. Between 1989 and 2009 he first set up a government research lab from the ground up, and then an industrial R&D lab again from the ground up. In 2009 he retired from his industrial position and joined the University of Texas at Dallas. His current research interests are in stochastic processes, and applications of engineering methods to cancer biology. He has published 10 books and about 140 papers in journals. He has received a number of honors in recognition of his research, including Fellowship of The Royal Society, the IEEE Control Systems (Field) Award, the ASME Rufus Oldenburger Medal, and the AACC John R. Ragazzini Education Award.