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Computer Science Seminar Series, 2008

National Capital Region

Analysis and Modeling of Eco-Climatic Data

Speaker: Prof. Pang-Ning Tan
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Tuesday, June 10, 2008
4:00 p.m. - 5:00PM, NVC 324

Abstract

Climate change due to human activities such as the burning of fossil fuels, deforestation, and certain land-use activities has become a subject of major concern among scientists, policymakers, environmental civic groups, and the public. There is growing evidence that changes in the climate may have discernible effect on physical, biological, and human systems--from species migration to agricultural production. Despite the importance of this issue, our ability to predict climate variability and to assess its impact on human and natural systems remains a great challenge. This talk presents some of my work in developing data mining algorithms to improve the analysis and modeling of eco-climatic data, including a semi-supervised learning framework for long-term time series prediction and an anomaly detection algorithm for detecting ecosystem disturbances.

Biography

Pang-Ning Tan is an Assistant Professor in the Department of Computer Science and Engineering at the Michigan State University. He received his M.S. degree in Physics and Ph.D. degree in Computer Science from the University of Minnesota. His research interests include pattern discovery in large databases, mining spatio-temporal and evolving data sets, incorporating background knowledge into data mining, and mining graphs and network data. He also co-authored the textbook "Introduction to Data Mining," published by Addison Wesley.