# Network analysis for prediction of anomalous activity.

A central issue studied in the lab of Yoram Louzoun (Mathematics and Brain research) is network dynamics and machine learning on networks.

An important question in networks is whether the topology of networks contains enough information to predict anomalous activity. We plan to test that by studying multiple sets of networks and developing machine learning and information theory to test for connected groups of nodes with anomalous activity. This project is performed with leading industries in Israel, but is also of theoretical importance.

The project will require

* Computation of graph features on network.
* Machine learning to predict future value.
* Development of Anomaly detection methods.
* Visualization of results.

The following would be an advantage, but can be learnt during the project

* Good Knowledge in statistics and probability theory.
* Experience in Machine learning.
* Basic concepts in Graph theory.
* Good experience in Python.

Applications and questions can be sent to:

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