

1120-60-41      **Nguyet Nguyen\*** (ntnguyen01@ysu.edu), 1 University Plaza, Youngstown, OH 44555. *Stock price prediction using Hidden Markov Model.*

In this talk, I will introduce the Hidden Markov Model (HMM) and use it to predict the prices of three stocks: Apple, Google and Facebook. The prediction procedure consists of several steps. Firstly, the Akaike information criterion (AIC) and Bayesian information criterion (BIC) were used to test the performances of HMM with different numbers of states. Then, predicted stock prices were compared with the market prices to see if the AIC or BIC test result for HMM is consistent with the prediction results. (Received January 29, 2016)