**Design Specification:**

MACD trend reversal model using the exponential Moving average for Long and Short can be used within the MACD trend reversal model.

Design using flowchart and pseudo code for the computerisation of the MACD trend reversal system. The Long moving average (MA) is set at 26 days and the short MA is set at 12 days. The signal line is using the 9 day MA of the MACD line. As the standard simple moving average incurs a lag in the trend reversal timing due to lack of look forward data, the use of the exponential moving average is commonly used instead. This attempts to reduce this lag by exponentially weighing the information closer to time t.

In your design allow the choice to the use of standard simple moving average as well as exponential moving average in the MACD trading system.

At each trend reversal: 1. The Signal line crossing under the MACD line - a buy signal is given to initiate a BUY and when 2. The Signal line cross over the MACD line a sell signal is given to initiate a SELL Compute the BUY and SELL pair through the trading cycle with a commission of 1/8th percent of each trade done during each of the trend reversal BUY/SELL position.

Assume all the holdings are bought or sold with all the accumulated funds. The stock series is stored in a text or excel file. Also, in your design compare your profit/loss against a simple BUYHOLD-SELL position over the entire period of the trend reversal trading

Prepare a report 5-6 pages on the design of such a trading system with block diagram using flow chart and pseudo code. Highlight the advantages and limitations of your design for maintainability Your design must allow the user to select either standard simple moving average or exponential moving average in the computation of the MACD histogram.

If we intend to reduce unnecessary trade due to weak trend reversal when must be added to your design?