

## Abstract

E-mail spam often defined by a bulk and unsolicited e-mail. A common type of e-mail spam is a advertisement, Multi Level Marketing (MLM) offer, gambling, scam, phishing, and fraud. The sending cost of e-mail spam is very low. The disadvantages for user are, not only they wasting their time to sort e-mail, all online services will be charged to the users, not to the e-mail spam sender.

E-mail spam filtering is a classification method that could be a solution to e-mail spam problem. In this final project, we will build a classification method that can be implemented to be an e-mail spam filtering is Granular Support Vector Machines – Association Rule (GSVM-AR). GSVM-AR optimize a well-known Support Vector Machine (SVM) method with addition of Granular Computing paradigm and a Association Classification method, in this case is the Apriori-TFPC algorithm. This two addition serves no other means only to enhance the system's accuracy that will be build.

**Keywords:** *e-mail spam, e-mail spam filtering, classification, granular computing, association rule, support vector machine.*