

[Home](#) > [Engineering Applications of Neural Networks](#) > Conference paper

# Fault Classification System for Computer Networks Using Fuzzy Probabilistic Neural Network Classifier (FPNNC)

Conference paper

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Karwan Qader &amp; Mo Adda

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## Abstract

Over the last decade, the world has witnessed the rapid development of networking applications of different kinds, and network domains have become more and more advanced regarding with their level of heterogeneity, complexity and the size. Some obstacles such as availability, flexibility and insufficient scalability have affected the existing centralized network management systems, as networks become more distributed. In this work a Fuzzy Probabilistic Neural Network Classifier (FPNNC) is proposed, comprising a hybrid fault classification algorithm based on Fuzzy Cluster Mean (FCM) with Probabilistic Neural Network (PNN) to classify the detected fault datasets. These results will assist network administrators with a highly effective tool to classify faults that occur in computer network systems, enabling them to take well-informed decisions pertaining to security, faults and performance.