

Classification of Breast Cancer Using Radial Basic Function Neural Network

Khin Mar Lar Oo

University of Computer Studies, Yangon
khinmarlaroo11592@gmail.com

Abstract

Breast cancer is the second most common form of cancer among females and also the fifth most cause of cancer deaths worldwide. The early detection is the best form of cure and hence timely and accurate diagnosis of the tumor is extremely vital. The use of learning machine and artificial intelligence techniques has revolutionized the process of diagnosis of the breast cancer. In this system Radial Basic Function Neural Network with Gaussian Function in hidden layer is used to classify the Breast Cancer. There are 327 records to implement the system. In each record includes 12 attributes. This system consists of three phases: preprocessing phase, training phase, testing phase. In preprocessing step, convert the input data into the binary number. In training phase, the RBF neural network is used to train the input vectors, symptoms of breast cancer. Twelve attributes of training datasets are presented into the input layer of the neural network. The RBF neural network is trained with training data and save the optimal parameters. In testing phase, the testing data inputs into the trained neural network with optimal parameters. The system displays one of five classes of breast cancer stages.