Abstract

Mental disorders have a large impact on individuals, families, and communities, and are one of the main causes worldwide of disability and distress. Correct diagnosis of mental disorders is essential in clinical practice, pharmacological research, and successful treatment. Patients with mental retardation often have multiple and sometimes complicated medical problems. In this paper we have proposed a feed forward back propagation neural network to classify the level of mental retardation by using Matlab software. There are six neurons in the input layer which represent the attribute of a patient. Output layer contains four neurons which represent four different levels of mental retardation in which each patient will be classified.

References

- Backpropagation: http://en.wikipedia.org/wiki/Backpropagation
- Diagnostic and Statistical Manual of Mental Disorders (4th edn, text revision) (DSM-IV-TR): http://bjp.rcpsych.org/content/179/1/85.1.
- Vijay Khare, Jayashree Santhosh, Sneh Anand, Manvir Bhatia,
Predicting the Class of a Mentally Disabled Patient to Check the Level of Mental Retardation by using Feed Forward Back Propagation Neural Network


- José del R. Millán, Josep Mouriño, Marco Franzé, Febo Cincotti, Markus Varsta, Jukka Heikkonen, and Fabio Babiloni, "A Local Neural Classifier for the Recognition of EEG Patterns Associated to Mental Tasks".

- Dehariya, A.; Chaudhary, V. K.; Khan, I.; Karsoliya, S., 2011, "An effective approach for medical diagnosis preceded by artificial neural network ensemble".


- José del R. Millán, Josep Mouriño, Marco Franzé, Febo Cincotti, Markus Varsta, Jukka Heikkonen, and Fabio Babiloni, "A Local Neural Classifier for the Recognition of EEG Patterns Associated to Mental Tasks".

- Dehariya, A.; Chaudhary, V. K.; Khan, I.; Karsoliya, S., 2011, "An effective approach for medical diagnosis preceded by artificial neural network ensemble".

Index Terms

Computer Science
Artificial Intelligence
Keywords
Electroencephalogram  Matlab  Artificial Neural Network  Feed Forward Back Propagation