Abstract

Intelligent computing systems (ICS) and knowledge-based systems (KBS) have shown an imperative aspect in the detection and interpretation of electroencephalography (EEG) based sleep disorders that are associated by psychological and physiological factors like Sleep Apnea, Insomnia, Parasomnia and Snoring. Heuristic detection methods based on EEG parameters for sleep disorders have also been described in the paper, and a small attempt has been made to integrate rule-based reasoning (RBR) and case-based reasoning belongs to KBS. Integrated methods of RBR and CBR enhance the computation and logical competence of thought process involved to solve a problem. In this paper, an integrated model is developed in which RBR and CBR used for developing cases which are further used for detection and interpretation of sleep disorders. All these sleep disorders are framed into physio-psycho (muscular, cognitive and psychological) and EEG based parameters. The prime aim of this paper is to develop a combined model based on RBR and CBR in which RBR interacts with the sign and symptoms of the disorders, CBR is used for recognize the sleep disorders.
Knowledge based System for the Diagnosis of Sleep Disorders

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Index Terms

Computer Science
Information Science
Keywords

CBR  EEG  RBR  Sleep Disorders