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SAPTHAGIRI COLLEGE OF ENGINEERING

14/5, Chikkasandra, Hesaraghatta Main Road, Bangalore-560057

Department of Computer Science and Engineering

Certificate



Certified that the project work entitled "NEURAL NETWORK BASED DETECTION AND CLASSIFICATION OF BRAIN TUMOR" carried out by LAVANYA S (1SG12CS049), NIVEDA G (1SG13CS067), PALLAVI P (1SG13CS069), POOJA G BHAT (1SG13CS070), bonafide students of Sapthagiri College Of Engineering, in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belgaum during the academic year 2016-17. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Madhushree
15/6/17
Signature of the Guide

Mrs. Madhushree
Assistant Professor

Dr. Prashanth C.M.
Signature of the HOD

Dr. Prashanth C.M
Professor & Head

Dr. Aswatha Kumar M
Signature of the Principal

Dr. Aswatha Kumar M
Principal

Name of the Examiners

Signature with date

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ABSTRACT

Brain cancer is a very serious type of malignancy that occurs when there is an uncontrolled growth of cancer cells in the brain. Brain cancer is caused by a malignant brain tumor. Not all brain tumors are malignant (cancerous). Some of them are benign (non-cancerous). It is also called glioma and meningioma. It is one of the leading causes of death from cancer. It is most treatable and curable if caught in the earliest stages of the disease. Untreated or advanced brain cancer can only spread inward because the skull will not let the brain tumor expand outward. This puts excessive pressure on the brain and can cause permanent brain damage and eventually death. Growth or expansion in tumor process results in symptoms, such as headache, and other neurological problems. The segmentation of brain tumors in magnetic resonance images (MRI) is a challenging and difficult task because of the variety of their possible shapes, locations, image intensities. And hence it is crucial to detect the brain tumor. To detect brain tumor using image processing and the work designs the tumor classifications framework in MATLAB with the help of image processing application.