IQ LEVEL ESTIMATION USING REGION GROWING METHOD

A PROJECT REPORT

Submitted by

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in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY

in

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BONAFIDE CERTIFICATE

Certified that this project report "**IQ LEVEL ESTIMATION USING REGION GROWING METHOD"** is the bonafide work of **SHIVANI R K (312315205145)** and **SONIYA S (312315205155)** who carried out the project work under my supervision, for the partial fulfillment of the requirements for the award of the degree of Bachelor of Technology in Information Technology.

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ABSTRACT

Medical imaging is one of the rapid growing field.Till humankind exists,medical field analysis continues and dynamically adapting to great extent.Human Intelligence is based on physical and anatomical structure of the brain.The IQ level of an adult can be estimated using various parameters such as White matter,Grey matter,cortical thickness,parietal lobes and volume of the brain.The intelligence level of an individual varies mainly depending on the proportions of these parameters.The anatomical and functional data of the brain structure can be analysed using structural MRI.MRI of the brain is safe and painless test which uses magnetic field and radio waves to produce detailed images of the brain.Image segmentation is one of the most critical task in medical image analysis.The parameters such as white matter,grey matter and volume of the brain is used in measuring IQ level of an adult.Gray-scale image filter and median image filter are the preprocessing steps.Followed by region growing method which is used to segment white matter,grey matter and volume of the brain is identified using edge detection.Region growing segmentation is the pixel based analysis using initial seeded points.

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