COMPARISON OF ELECTROPHYSIOLOGICAL MEASURES OF BRAINSTEM TIMING CHANGES IN YOUNG, MIDDLE AGED AND OLDER ADULTS



A thesis submitted in fulfillment of the award of Doctor of Philosophy In Speech and Hearing

MANIPAL UNIVERSITY

By

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Under the guidance of

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AUGUST, 2015



Certificate

This certify that this PhD thesis "COMPARISON **OF ELECTROPHYSIOLOGICAL MEASURES OF BRAINSTEM TIMING** CHANGES IN YOUNG, MIDDLE AGED AND OLDER ADULTS" has been done by Mr. Muhammed Ayas K P under the supervision of Dr. B. Rajashekhar. I am satisfied with the work presented by the candidate towards the partial fulfilment of Doctor of Philosophy in Speech and Hearing.

Dr. B Rajashekhar DeanSOAHS
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Date: Place:



Certificate

This is to certify that this PhD thesis on "COMPARISON OF ELECTROPHYSIOLOGICAL MEASURES OF BRAINSTEM TIMING CHANGES IN YOUNG, MIDDLE AGED AND OLDER ADULTS" has been done by Mr. Muhammed Ayas K P under my supervision. I am satisfied with the work presented by the candidate towards the partial fulfillment of Doctor of Philosophy In Speech and Hearing

Dr. B Rajashekhar Professor & GuideDept. of Speech and Hearing SOAHS
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Date: Place:

DECLARATION

I hereby declare that this **PhD thesis** entitled: "COMPARISON OF ELECTROPHYSIOLOGICAL MEASURES OF BRAINSTEM TIMING CHANGES IN YOUNG, MIDDLE AGED AND OLDER ADULTS" is the result of my own study under the guidance of **Dr. B. Rajashekhar**, Professor, Department of Speech and Hearing & Dean, School of Allied Health Sciences, Manipal University, Manipal, and has not been submitted earlier at any other university for the award of any Diploma or Degree.

Muhammed Ayas K P

Date: Place: