

# Department of Computer Science and Engineering

#### **TEZPUR UNIVERSITY**

## Certificate

This is to certify that the B. Tech. thesis entitled "Brain Controlled Wheelchair: Motor Imagery Classification and an Implementation" submitted by the students whose name are given below is an authentic research work carried out by them under my supervision and guidance for partial fulfillment of the requirements and the regulations for the award of the degree of Bachelor of Technology in Computer Science and Engineering during the session 2010-14 at School of Engineering, Tezpur University, Assam.

To the best of my knowledge, the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any Degree or Diploma.

> Names of Students Roll No

Rakesh Sarma **Bitopan** Das Mridusmita Talukdar

CSB10001 CSB10013 CSB10073

Head (Dr. Shyamanta M. Hazarika)

Professor Department of Computer Science and Engineering, Tezpur University, Assam

Date: Place:



## Department of Computer Science and Engineering

#### **TEZPUR UNIVERSITY**

### Certificate

This is to certify that the B. Tech. thesis entitled "Brain Controlled Wheelchair: Motor Imagery Classification and an Implementation" submitted by the students whose name are given below is an authentic research work carried out by them under the supervision and guidance of Dr. Shyamanta M. Hazarika for partial fulfillment of the requirements and the regulations for the award of the degree of Bachelor of Technology in Computer Science and Engineering during the session 2010-14 at School of Engineering, Tezpur University, Assam.

To the best of my knowledge, the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any Degree or Diploma.

Names of Students Roll No

Rakesh SarmaCSBBitopan DasCSBMridusmita TalukdarCSB

CSB10001 CSB10013 CSB10073

(Dr. Shyamanta M. Huzanka

Department of Computer Science and Engineering, Tezpur University, Assam

Date: Place:



# Department of Computer Science and Engineering

#### **TEZPUR UNIVERSITY**

### Certificate

This thesis entitled "Brain Controlled Wheelchair: Motor Imagery Classification and an Implementation" presented by Rakesh Sarma (CSB10001), Bitopan Das (CSB10013) and Mridusmita Talukdar (CSB10073), of the Department of Computer Science and Engineering, Tezpur University, Assam, India have been examined and certified to be worthy of acceptance for the award of a Bachelor of Technology in Computer Science and Engineering by the undersigned.



Internal Examiner 1 Date: Place:

2015/14 Internal Examiner 2 (ce-ordinetar) Date:

Date:

Place: Assistant Professor Department of Computer Science & Engg. **Tezpur University** 

## Declaration of Authorship

We hereby declare that the thesis entitled "Brain Controlled Wheelchair: Motor Imagery Classification and an Implementation" for partial fulfillment of the requirements and the regulations for the award of the degree of Bachelor of Technology in "Computer Science and Engineering" during the session 2010-14 at Tezpur University, Assam, has prepared by us and has not been submitted to any other University/ Institute for the award of any Degree or Diploma.

Charma.

Rakesh Sarma Roll No: CSB10001 Date: 26 of May, 2014 Place: TC3pwz

Bitopan dag

Bitopan Das Roll No: CSB10013 Date: 26/05/2014 Place: Tezpur

Muidusmila Talukdar

Mridusmita Talukdar Roll No: CSB10073 Date: 26<sup>th</sup> May, 2014 Place: Terspore

## ACKNOWLEDGMENT

We would like to thank our supervisor, Dr. Shyamanta M. Hazarika, for his continued guidance, support and encouragement. We would like to express our deep sense of respect and gratitude towards him for being the guiding force behind this project. Without his help, we would have never been able to make any progress in our thesis work entitled "Brain Controlled Wheelchair: Motor Imagery Classification and an Implementation". We are grateful for the research methodologies endowed upon us by him and for giving us the opportunity to place forward our ideas. We are thankful to him for allowing us to attend different seminars, conferences and schools during the project which has helped us to interact with researchers on a global platform.

There were a lot of people who extended their supportive hands towards this project. It is a pleasure to convey our gratitude to Mr. Mantoo Kaibarta, Ms. Nayantara Kotoky, Mr. Manohar Singh, Mrs. Priyakshi Mahanta and Mr. Somojoti Dutta for helping us during the project.

We would also like to thank the Department of Computer Science & Engineering, Tezpur University, for the numerous opportunities that we have availed throughout the project. We extend our sincere thanks to the research group at the Biomimetics and Cognitive Robotics Lab, CSE, for their generous help in various ways for the completion of the project.

We are especially indebted to our parents and family for their love, sacrifice and support. We also extend our heartfelt thanks to Dr. L. Hazarika, Medical Officer, Tezpur University, for the regular medical assistance. Finally, we extend our gratefulness to all those who are directly or indirectly involved in this project.

> Rakesh Bitopan Mridusmita