



DEPARTMENT OF  
COMPUTER SCIENCE & ENGINEERING  
**TEZPUR UNIVERSITY**

NAPAAM, TEZPUR-784028

Ph: 03712-267007-009 Ext-

ASSAM: INDIA

Fax:03712-267005/006

Email: @tezu.ernet.in

---

## Certificate

This is to certify that Mr. Jyoti Prasad Rabha bearing Roll No.- CSI12021 has completed his M.Tech project as required by the Department of Computer Science and Engineering, Tezpur University.

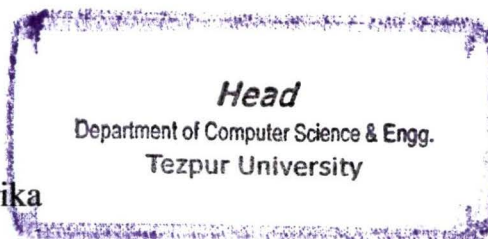
The thesis titled 'Unsupervised Change Detection of Remote Sensing Images' has been done under the supervision of Dr. Swarnajyoti Patra. The dissertation is satisfactory and worthy of acceptance for the award of a Master of Technology in Information Technology.

  
Dr. Shyamanta M Hazarika

Head of Department

Dept. of Computer Science & Engineering

Tezpur University





DEPARTMENT OF  
COMPUTER SCIENCE & ENGINEERING  
**TEZPUR UNIVERSITY**

NAPAAM, TEZPUR-784028

Ph: 03712-267007-009 Ext-

ASSAM: INDIA

Fax:03712-267005/006

Email: @tezu.ernet.in

---

## Certificate

This is to certify that Mr. Jyoti Prasad Rabha bearing Roll No.- CSI12021 has completed his M.Tech project as required by the Department of Computer Science and Engineering, Tezpur University.

The thesis titled 'Unsupervised Change Detection of Remote Sensing Images' has been done under my supervision. The dissertation is satisfactory and worthy of acceptance for the award of a Master of Technology in Information Technology.

*Swarna*  
22.5.14

Dr. Swarnajyoti Patra

Assistant Professor

Dept. of Computer Science & Engineering

Tezpur University



DEPARTMENT OF  
COMPUTER SCIENCE & ENGINEERING  
**TEZPUR UNIVERSITY**

NAPAAM, TEZPUR-784028

Ph: 03712-267007-009 Ext-

ASSAM: INDIA

Fax:03712-267005/006

Email:

@tezu.ernet.in

**Certificate**

This is to certify that the work presented in this dissertation entitled “*Change Detection of Remote Sensing Images*” submitted in partial fulfillment of the 4<sup>th</sup> semester project requirement for the award of **M.Tech** Degree with specialization in “*Information Technology*”, is an original work carried out by Jyoti Prasad Rabha(CSI12021) under the Guidance and Supervision of Dr.Swarnajyoti Patra, Assistant Professor(CSE, Tezpur University).

Internal Examiner

**Professor**

Department of Computer Science & Engg.  
Tezpur University

External Examiner

**EXTERNAL  
EXAMINER**

Date: 26/05/14

Place: Tezpur



DEPARTMENT OF  
COMPUTER SCIENCE & ENGINEERING  
**TEZPUR UNIVERSITY**

NAPAAM, TEZPUR-784028

Ph: 03712-267007-009 Ext-

ASSAM: INDIA

Fax:03712-267005/006

Email:

@tezu.ernet.in

---

## DECLARATION

I, Jyoti Prasad Rabha, hereby declare that the dissertation work “**Unsupervised Change Detection of Remote Sensing Images**” submitted for partial fulfilment of the requirements and the regulations for the award of the degree of **Master of Technology** with specialization '**Information Technology**' during the session 2012-14 at Tezpur University.

The thesis is prepared by me and has not been submitted to any other university/institute for the award of any Degree or Diploma.

*Jyoti Prasad Rabha*

Date : 22/09/2014

Place: Tezpur

---

**Jyoti Prasad Rabha**

Roll No: CSI – 12021

M.Tech. (Information Technology)

Department of CSE

Tezpur University

## ACKNOWLEDGEMENTS

It's my great pleasure to show due regards to persons involved in bringing out successful completion of the thesis work entitled "Unsupervised Change Detection of Remote Sensing Images" undertaken by me as a prerequisite towards partial fulfillment for the award of Master of Technology with specialization '*Information Technology*' at Tezpur University.

It would not possible for me to achieve success with my effort alone. There were a lot of people who extended their supportive hands towards me in the way of making my work a success. It is a pleasure to convey my gratitude to all of them.

First of all, I would like to express my deep sense of respect and gratitude towards my advisor and guide **Dr. Swarnajyoti Patra**, who has been the guiding force behind this Project work. I am greatly indebted to him for his constant encouragement, invaluable suggestions and support from an early stage of this research and providing me extraordinary experiences throughout the work. I consider it as my good fortune and proud to record that I had the opportunity to work with such a wonderful person.

I am highly grateful to **Dr. Shyamanta M.Hazarika**, Head of the Department, Department of Computer Science & Engineering, Tezpur University, for his constant support in providing necessary facilities during the course of the work. I extend my sincere thanks to other faculty members, research scholars and laboratory staff of the Department, for their generous help in various ways for the completion of the work.

I am especially indebted to my parents for their love, sacrifice, and support. I would like to thank for all the thoughtful and mind stimulating discussions we had, which prompted me to think beyond the obvious. Finally, I extend my gratefulness to all those who are directly or indirectly involved in this work.

*Jyoti Prasad Rabha*

Date : 22/05/2014  
Place: Tezpur

---

**Jyoti Prasad Rabha**  
Roll No: CSI - 12021  
M. Tech. (Information Technology)  
Department of CSE  
Tezpur University