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CERTIFICATE

This is to certify that Arvind Kumar Thawait bearing Roll no. CSI11005 has prepared the dissertation entitled "Application of GIS & Modeling Tools for Simulation of Water Flow & Soil Loss."

The dissertation is the result of his efforts & endeavors. The dissertation is found worthy of acceptance for the award of Master of Technology in Information Technology. He has worked under the supervision and guidance of Mr. Siddartha Sankar Satapathy & Prof. S. C. Patra.

Date: 29-05-13.

  
29-05-13-  
(Dr. Utpal Sharma)  
Professor and Head  
Deptt. of CSE

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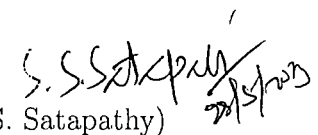
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CERTIFICATE

This is to certify that the work presented in the report entitled “**Application of GIS & Modeling Tools for Simulation of Water Flow & Soil Loss**” submitted in partial fulfillment of the requirements for the award of the degree of Master of Technology in Information Technology, was carried out by **Mr. Arvind Kumar Thawait** under our supervision. The work has not been submitted elsewhere for award of any other degree or diploma.

  
(Mr. Siddhartha. S. Satapathy)  
Assistant Professor  
Deptt. of CSE  
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**GOVT. OF INDIA**

*Ministry of Water Resources*

**NORTH EASTERN REGIONAL INSTITUTE OF  
WATER AND LAND MANAGEMENT**



### **CERTIFICATE**

This is to certify that the work presented in the report entitled “**Application of GIS & Modeling Tools for Simulation of Water Flow & Soil Loss**” submitted to the Department of Computer Science and Engineering under the School of Engineering, Tezpur University, in partial fulfillment of the requirements for the award of the degree of Master of Technology in Information Technology, was carried out by **Mr. Arvind Kumar Thawait** under our supervision. The work has not been submitted elsewhere for award of any other degree or diploma.

(Prof. S. C. Patra)

Professor

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CERTIFICATE

This dissertation entitled “Application of GIS & Modeling Tools for Simulation of Water Flow & Soil Loss” submitted by Arvind Kumar Thawait for partial fulfillment of the requirements for the degree of Master of Technology in Information Technology at Tezpur University has been examined.

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Internal Examiner

Date: 29/05/2013

Place: Tezpur

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External Examiner

Date:

Place: Tezpur

## Declaration

I hereby declare that the dissertation entitled “**Application of GIS & Modeling Tools for Simulation of Water Flow & Soil Loss**” submitted to the Department of Computer Science and Engineering under the School of Engineering, Tezpur University, is prepared by me and was not submitted to any other institution for award of any other degree for the best of my knowledge.

(Arvind Kumar Thawait)

## Acknowledgments

I express my deep and sincere gratitude to Mr. Siddhartha. Sankar Satapathy, who have been my supervisor since the beginning of this study as well as the project. This study had been far beyond completion without his exquisite support. I am greatly indebted for his valuable, constructive and critical guidance throughout the tenure of this project.

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Finally, I would like to thank all of those who helped directly or indirectly towards the completion of this project work.

Arvind Kumar Thawait