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CERTIFICATE

This is to certify that the dissertation entitled “*Nature Inspired Moving Sink based Energy Efficient Data Gathering Protocol for Wireless Sensor Network*” submitted by **Biswaranjan Swain** bearing Roll No: **CSI12011** is an authentic research work carried out by him under my personal supervision and guidance 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, Tezpur.

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

Handwritten signature of Dr. Siddhartha S. Satapathy, dated 25/12/14.

Signature of Supervisor

(Dr. Siddhartha S. Satapathy)



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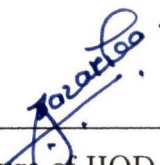
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CERTIFICATE

This is to certify that **Biswaranjan Swain** bearing Roll No: CSI12011 has prepared the dissertation entitled “*Nature Inspired Moving Sink based Energy Efficient Data Gathering Protocol for Wireless Sensor Network*”

The dissertation is the result of his effort and endeavour. He has worked under the supervision and guidance of **Dr. Siddhartha S. Satapathy**, Asst. Professor, Department of Computer Science & Engineering, Tezpur University. The dissertation is found worthy of acceptance for the award of the degree of *Master of Technology* with specialization *Information Technology* during the session 2012-14 at Tezpur University.



Signature of HOD
(Dr. Shyamanta M Hazarika)

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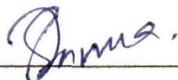
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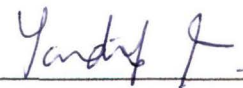
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Internal Examiner

Date: 26/05/14

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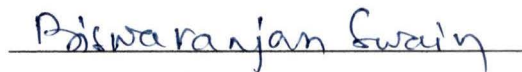
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Declaration

I hereby declare that the dissertation report entitled *Nature Inspired Moving Sink based Energy Efficient Data Gathering Protocol for Wireless Sensor Network* submitted to the Department of Computer Science and Engineering under the School of Engineering, Tezpur University, in partial fulfilment of the requirements for the award of the degree of Master of Technology is based on bonafide work carried out by me. The results embodied in this thesis have not been submitted in part or in full, to any other university or institute for award of any degree or diploma.



Biswaranjan Swain

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M. Tech (Information Technology)

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Biswaranjan Swain