#### प्रगत संगणन विकास केन्द्र CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING



संचार एवं सूचना प्रौद्योगिकी मंत्रालय की वैज्ञानिक संस्था, भारत सरकार A Scientific Society of the Ministry of Communications and Information Technology, Government of India 68, डलेक्ट्रॉनिक्स सिटी, बॅगलूर - 560 100, भारत फ़ोन / Tel: +91-80-2852 3300, फेक्स / Fax: +91-80-2852 2590 68, Electronics City, Bangalore 560 100, India. www.cdacbangalore.in

16<sup>th</sup> May 2012

#### To whomsoever concern

This is to certify that Mr. Md.Ariful Hoque, final year MCA, Department of Computer Science and Engineering, Tezpur University, Napaam, Tezpur-784028, Assam, has successfully completed his internship at C-DAC, Electronics City, Bangalore during January 2012 till May 2012. He was directly reporting to Mr.Muraleedharan and Mr.Subhash Chandra Bose who were coordinating his work during this period.

He carried out research in the field of anomaly detection for identifying intrusions and his specific contribution was in devising, implementing and validating an anomaly detection system based on Kolmogrov-Smirnov test using SNMP data. His work is commendable and has further research potential.

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16<sup>th</sup> May 2012

#### To whomsoever concern

This is to certify that Ms. Barnali Chakraborty, final year MCA, Department of Computer Science and Engineering, Tezpur University, Napaam, Tezpur-784028, Assam, has successfully completed her internship at C-DAC, Electronics City, Bangalore during January 2012 till May 2012. She was directly reporting to Mr.Muraleedharan and Mr.Subhash Chandra Bose who were coordinating her work during this period.

She carried out research in the field of anomaly detection for identifying intrusions and her specific contribution was in devising, implementing and validating an anomaly detection system based on Kolmogrov-Smirnov test using SNMP data. Her work is commendable and has further research potential.

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### Certificate

This is to certify that the work presented in the report entitled ANALYSIS AND DESIGN OF AN ANOMALY BASED INTRUSION DETECTION SYSTEM USING SNMP DATA submitted to the Department of Computer Science & Engineering, Tezpur University, Napaam, Tezpur, is a record of original work done by Ariful Hoque (CSM09024) and Barnali Chakraborty (CSM09017) under guidance of Dr. Nityananda Sarma, Associate Professor of Department of Computer Science & Engineering, Tezpur University, Tezpur, Assam and this project is submitted in partial fulfillment of the requirement for the degree of Master of Computer Application (MCA) of Tezpur University.

The matter embodied in this report is original and was not submitted to any other University or Institute for the award of any degree or diploma.

Date:- 04.06.12

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## Certificate

This is to certify that the work presented in the report entitled ANALYSIS AND DESIGN OF AN ANOMALY BASED INTRUSION DETECTION SYSTEM USING SNMP DATA submitted in partial fulfillment of the requirement for the degree of Master of Computer Application (MCA), was carried out by Ariful Hoque (CSM09024) and Barnali Chakraborty (CSM09017) under my supervision and guidance.

The matter embodied in this report is original and was not submitted to any other University or Institute for the award of any degree or diploma.

Date:- 04612

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## Certificate

The dissertation entitled "ANALYSIS AND DESIGN OF AN ANOMALY BASED INTRUSION DETECTION SYSTEM USING SNMP DATA" submitted by Ariful Hoque (CSM09024) and Barnali Chakraborty (CSM09017) in partial fulfillment of the requirements for the award of the degree of Master of Computer Application of Tezpur University has been examined.

Internal Examinery

Date: Telpy 4/0

Assistant Professor & Engl.

Assistant Professor Science & Engl.

Department of Computer Science & Engl.

External Examiner

Date:-EXTERNAL Place:EXAMINER

## DE LA LEGISTA DE

#### **DEPARTMENT OF**

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#### **TEZPUR UNIVERSITY**

**TEZPUR 784028** 

ASSAM.

## Declaration

We hereby declare that the dissertation work entitled "ANALYSIS AND DESIGN OF AN ANOMALY BASED INTRUSION DETECTION SYSTEM USING SNMP DATA" submitted to the Department of Computer Science & Engineering, Tezpur University is prepared by us and was not submitted to any other University or Institute for the award of any degree or diploma.

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CSM09024 (MCA 6<sup>TH</sup> Sem.)

Dept. of CSE, Tezpur University

Date: - 4.6.2012.

Place:-Tezpur University

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Ariful Hoque Barnali Chakraborty