CANDIDATE'S DECLARATION

I, Lakshman Naik. L, certify that the work embodied in this Ph.D. thesis is my own bonafied work carried out by me under the supervision of Dr. R.U. Khan for a period of seven years and two months from 01 April 2011 to 14 May 2018 in the Department of Electronics Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi. The matter embodied in this Ph.D. thesis has not been submitted for the award of any other degree/ diploma.

I, declare that I have faithfully acknowledged, given credit to and referred to the research workers wherever their works have been cited in the text and the body of the thesis. I further certify that I have not wilfully lifted up some other's work, para, text, data, results, etc. reported in the journals, books, magazines, reports, dissertations, thesis, etc., or available at websites and included them in this Ph.D. thesis and cited as my own work.

Date: (Signature of the Candidate)

Place: Varanasi (Lakshman Naik. L)

Certificate from the Supervisor

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Dr. R.U. Khan (Supervisor)

(Prof. V.N. Mishra)
Head
Department of Electronics Engineering
Indian Institute of Technology
(Banaras Hindu University),
Varanasi



DEPARTMENT OF ELECTRONICS ENGINEERING INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY) VARANASI – 221005

Phone: 0542-2307010, 6701501 Fax: 0542-2366758 e-mail: <u>head@iitbhu.ac.in</u>

COURSE WORK COMPLETION CERTIFICATE

This is to certify that Mr. Lakshman Naik. L (Registration No. G-Jan 11/T-42), a bonafide research scholar of this department, has successfully completed the course work requirement which is a part of his Ph.D. programme.

Date: (Prof. V.N. Mishra)

Place: Varanasi Head of the Department



DEPARTMENT OF ELECTRONICS ENGINEERING INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY) VARANASI – 221005

Phone: 0542-2307010, 6701501 Fax: 0542-2366758 e-mail: <u>head@iitbhu.ac.in</u>

COMPREHENSIVE EXAMINATION COMPLETION CERTIFICATE

This is to certify that Mr. Lakshman Naik. L (Registration No. G-Jan 11/T-42), a bonafide research scholar of this department, has successfully completed the comprehensive examination clearance requirement which is a part of his Ph.D. programme.

Date: (Prof. V.N. Mishra)

Place: Varanasi Head of the Department



DEPARTMENT OF ELECTRONICS ENGINEERING INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY) VARANASI – 221005

Phone: 0542-2307010, 6701501 Fax: 0542-2366758 e-mail: <u>head@iitbhu.ac.in</u>

SEMINAR CERTIFICATE

This is to certify that Mr. Lakshman Naik. L, Ph.D. Scholar, Department of Electronics Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi has delivered his Ph.D. Pre-Submission Seminar on his Ph.D. thesis entitled "Performance Analysis of Some Routing Protocols for Mobile Ad Hoc Networks" on 14.05.2018 at 12.00 Noon in the Committee Room of the Department as per the satisfaction of RPC and DRC members.

(Dr. R.U. Khan)

(Prof. V.N. Mishra)

Supervisor

Head of the Department

COPYRIGHT TRANSFER CERTIFICATE

Title of the Thesis: Performance Analysis of Some Routing Protocols for

Mobile Ad Hoc Networks

Candidate's Name: Lakshman Naik.L

Copyright Transfer

The undersigned hereby assigns to the Indian Institute of Technology (Banaras Hindu University), Varanasi all rights under copyright that may exist in and for the above thesis submitted for the award of the Ph.D. degree.

Signature of the candidate