



Department of Biostatistics
Christian Medical College, Bagayam, Vellore 632 002
Tamil Nadu, India.

Dr. B. Antonisamy, M.Sc., Ph.D., FRSS., FSMS
Professor and Head

Certificate

This is to certify that this dissertation entitled "**Review on various statistical methods used in Survival Analysis**" of the candidate **Mr. Akhilesh Namboothiri E** for the degree of Master of Science in Biostatistics submitted to the faculty of science of Mahatma Gandhi University, Kottayam, is a record of his research work done under the guidance of **Dr. B. Antonisamy, Ph.D., FRSS., FSMS**, Professor and Head, Department of Biostatistics, Christian Medical College, Vellore.

Dr. B. Antonisamy, Ph.D., FRSS., FSMS,
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Vellore, India.



September 27, 2016

REGIONAL CANCER CENTRE

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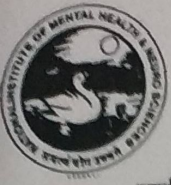
CERTIFICATE

This is to certify that the project entitled “**Determination of optimum cut point to separate high and low risk patients in cancer survival**” is a record of original work done by **Miss. Anagha Menon VU** under my supervision in partial fulfilment of the requirements of the Degree of Master of Science in Biostatistics of Mahatma Gandhi University, Kottayam. I further certify that the project work has not previously formed the basis for the award of any other Degree or Diploma or Associate ship or Fellowship or other similar title to any candidate of this or any other University.

Preethi Sara George

Dr. Preethi Sara George

Associate Professor
Division of Cancer Epidemiology & Biostatistics
Regional Cancer Centre, Thiruvananthapuram



National Institute of Mental Health & Neuro Sciences

(Institute of National Importance), Bangalore -560 029

राष्ट्रीय मानसिक स्वास्थ्य एवं तंत्रिका विज्ञान संस्थान, (राष्ट्रीय महत्व का संस्थान), बेंगलूर -560029
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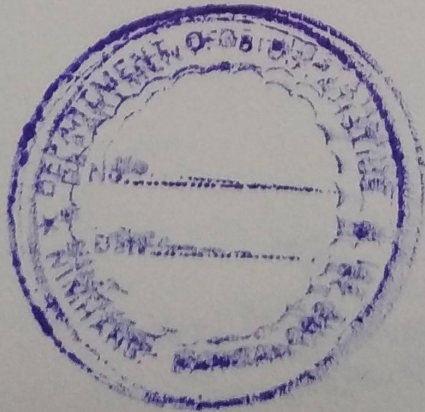
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Date: 30/09/2016

CERTIFICATE

This is to certify that Ms. ANEENA M.S. (Reg. No. 140011014690) student of Department of Biostatistics, St. Thomas College, Pala, has completed her fourth semester project work under my guidance from August 2016 to September 2016.

The project entitled **Longitudinal data analysis using RM-ANOVA & GEE in chronic renal failure patients receiving Haemodialysis** embodies the work done by her during her fourth semester project in partial fulfilment of the requirements for the degree of **Master of Science in Biostatistics** of Mahatma Gandhi University, Kottayam, Kerala.



Signature of the Guide

(Dr. P. MARIMUTHU)



Dr. P. MARIMUTHU
Additional Professor
Department of Biostatistics
National Institute of Mental Health
and Neuro Sciences
Bangalore - 560 029



Department of Biostatistics

Christian Medical College, Bagayam, Vellore 632 002
Tamil Nadu, India.

Dr. B. Antonisamy, M.Sc., Ph.D., FRSS., FSMS
Professor and Head

Certificate

This is to certify that this dissertation entitled "**Review on Factor Analysis techniques and its applications in medical research**" of the candidate **Ms. Anjaly S Nair** for the degree of Master of Science in Biostatistics submitted to the faculty of science of Mahatma Gandhi University, Kottayam, is a record of his research work done under the guidance of **Dr. B. Antonisamy, Ph.D., FRSS., FSMS.**, Professor and Head, Department of Biostatistics, Christian Medical College, Vellore.

Dr. B. Antonisamy, Ph.D., FRSS., FSMS.
Professor and Head,
Department of Biostatistics,
Christian Medical College,
Vellore, India.



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CERTIFICATE

This is to certify that the project entitled "Diabetes Mellitus and Endometrial Cancer: A Meta-Analysis" is a record of original work done by Anju S under my supervision in partial fulfilment of the requirements of the Degree of Master of Science in Biostatistics of Mahatma Gandhi University, Kottayam. I further certify that the project work has not previously formed the basis for the award of any other Degree or Diploma or Associateship or Fellowship or other similar title to any candidate of this or any other University.

Aleyamma Mathew

Dr. Aleyamma Mathew, PhD (Epid), PhD (Stat)

Professor & Head

Division of Cancer Epidemiology & Biostatistics

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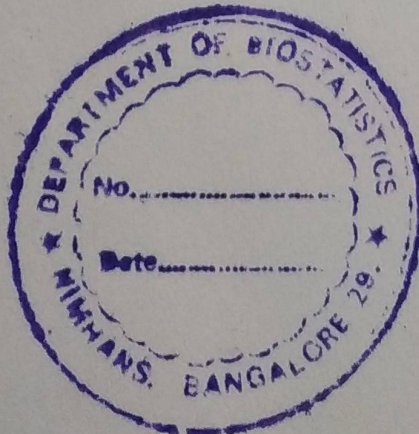
CERTIFICATE

This is to certify that **Ms. Anju S. Kalapura** (Reg. No: 140011014693) student of Department of Biostatistics, St. Thomas College, Pala has completed her fourth semester project work under my guidance from August 2016 to September 2016.

The project entitled "**Application of Factor Analysis in Behavioral Research**" embodies the work done by her during her fourth semester project in partial fulfillment of the requirements of the Degree of **Master of Science in Biostatistics** of Mahatma Gandhi University, Kottayam, Kerala.

Signature of the Guide

(Dr. Mariamma Philip)



Dr. MARIAMMA PHILIP
Assistant Professor
Department of Biostatistics
NIMHANS, BANGALORE.

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CERTIFICATE

This is to certify that the project entitled "**Mixture Modelling for Cancer Survival**" is a record of original work done by **Aswin R Nair** under my supervision in partial fulfilment of the requirements of the Degree of Master of Science in Biostatistics of Mahatma Gandhi University, Kottayam. I further certify that the project work has not previously formed the basis for the award of any other Degree or Diploma or Associateship or Fellowship or other similar title to any candidate of this or any other University.

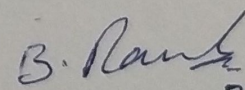
Dr. Jagathnath Krishna K M

Assistant Professor
Division of Cancer Epidemiology & Biostatistics
Regional Cancer Centre, Thiruvananthapuram

CERTIFICATE

This is to certify that Ms.Divyasree Chandran (Reg.140011014695), student from Department of Biostatistics, St.Thomas college Pala completed her 4th semester project work under my guidance from August to October 2016.

The project entitled "The role of Analysis Of Variance in clinical trials" is the work done by Ms. Divyasree Chandran under my supervision in partial fulfillment of the requirement of degree of Master of Science in biostatistics of Mahatma Gandhi University, Kottayam.


28/10/2016
Bandi Ramanjineyulu

Lead Statistician

R&D projects clinical platforms and sciences

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Date: 30/9/2016

CERTIFICATE

This is to certify that **Ms. JEETHU ISSAC** (Reg. No. 140011014696) student of Department of Biostatistics, St. Thomas College, Pala, has completed her fourth semester project work under my guidance from August 2016 to September 2016.

The project entitled **Effect of missing data analysis on inference** embodies the work done by her during her fourth semester project in partial fulfilment of the requirements for the degree of **Master of Science in Biostatistics** of Mahatma Gandhi University, Kottayam, Kerala.

Signature of the Guide

(Dr. Mariamma Philip)

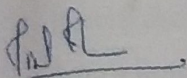


Dr. MARIAMMA PHILIP
Assistant Professor
Department of Biostatistics
NIMHANS, BANGALORE.

20/10/2016

CERTIFICATE

This is to certify that the project entitled "*Statistical Methods for Handling Skewed Data*" is a record of original work done by Ms. Neethu Benny in partial fulfillment of the requirements for the Degree of **Master of Science in Biostatistics** of Mahatma Gandhi University, Kottayam, Kerala. She has done the work in the Division of Epidemiology and Biostatistics, St. John's Research Institute, Bangalore from July to October, 2016 under my guidance. I further certify that the project work has not previously formed the basis for the award of any other Degree or Diploma or Associateship or Fellowship or other similar title to any candidate of this or any other university.



Dr. Tinku Thomas

Associate Professor,

Division of Epidemiology and Biostatistics,

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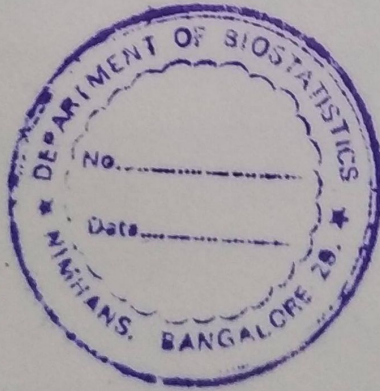
CERTIFICATE

This is to certify that **Ms. Nifty Tomy** (Reg. No. 140011014698) student of Department of Biostatistics, St. Thomas College, Pala, has completed her fourth semester project work under my guidance from August 2016 to September 2016.

The project entitled "**Statistical methods for assessing reliability**" embodies the work done by her during her fourth semester project in partial fulfilment of the requirements for the Degree of **Master of Science in Biostatistics** of Mahatma Gandhi University, Kottayam, Kerala.

Signature of the Guide

(Dr. B. Binukumar)



Dr. B. BINUKUMAR, Ph.D.
ASSISTANT PROFESSOR
DEPARTMENT OF BIOSTATISTICS
NATIONAL INSTITUTE OF
MENTAL HEALTH AND NEURO SCIENCES
BANGALORE-560029.

CERTIFICATE

This is to certify that Ms. Reshma Reghunathan (reg.no:140011014699) student of department of biostatistics, St. Thomas college Pala has completed her fourth semester project work under my guidance from August 2016 to October 2016.

The project entitled "Survival Analysis Of Heroin Addicts" is a record of original work done by her during her fourth semester project in partial fulfilment of the requirement of the degree of master of science in biostatistics of Mahatma Gandhi University Kottayam, Kerala.

Veena
28/10/16

Veena Vincent

Senior statistician

Quantitative Sciences India

GSK Pharmaceuticals Ltd

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Dr. B. Antonisamy, M.Sc., Ph.D., FRSS., FSMS
Professor and Head

Certificate

This is to certify that this dissertation entitled "**Analysis of Repeated Measures data with continuous outcome variables**" of the candidate **Ms. Sona Antony** for the degree of Master of Science in Biostatistics submitted to the faculty of science of Mahatma Gandhi University, Kottayam, is a record of his research work done under the guidance of **Dr. B. Antonisamy, Ph.D., FRSS., FSMS.,** Professor and Head, Department of Biostatistics, Christian Medical College, Vellore.

Dr. B. Antonisamy, Ph.D., FRSS., FSMS.,
Professor and Head,
Department of Biostatistics,
Christian Medical College,
Vellore, India.



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CERTIFICATE

This is to certify that the project entitled "**Biasedness in Cancer Survival Due to Non-proportional Hazards**" is a record of original work done by **Surya S** under my supervision in partial fulfilment of the requirements of the Degree of Master of Science in Biostatistics of Mahatma Gandhi University, Kottayam. I further certify that the project work has not previously formed the basis for the award of any other Degree or Diploma or Associateship or Fellowship or other similar title to any candidate of this or any other University.

Dr. Jagathnath Krishna K M

Assistant Professor
Division of Cancer Epidemiology & Biostatistics
Regional Cancer Centre, Thiruvananthapuram



National Institute of Mental Health & Neuro Sciences

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Ref:

Date:

CERTIFICATE

This is to certify that **Mr. TITTU RAJU** (Reg. No. 140011014702) student of Department of Biostatistics, St. Thomas College, Pala, has completed his fourth semester project work under my guidance from August 2016 to September 2016.

The project entitled **Statistical Methods to Deal with Time to Event Data** embodies the work done by his during his fourth semester project in partial fulfilment of the requirements for the Degree of **Master of Science in Biostatistics** of Mahatma Gandhi University, Kottayam, Kerala.



Signature of the Guide

Dr. B. Binukumar

Dr. B. BINUKUMAR, Ph.D.
ASSISTANT PROFESSOR
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Head, Dept. of Biostatistics
St. Thomas College, Pala
Kottayam Dt., Kerala