



DEPARTMENT OF BIostatISTICS
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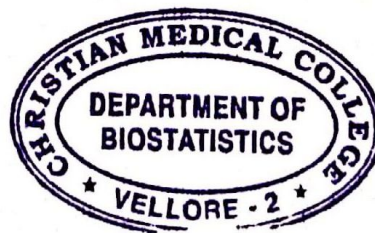
Dr. B. Antonisamy, Ph.D., FRSS., FSMS.,
Professor & Head

Email : biostats@cmcvellore.ac.in
Web: www.cmc-biostatistics.ac.in

Certificate

This is to certify that this dissertation entitled "**A Comparison of Statistical test and Graphical method for Assessing the Proportional Hazards Assumption for the Cox Model**" of the candidate **Mr. Abin Francis** 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 **Mr. Bijesh Yadav, MSc.,** Senior Demonstrator, 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.



September 28, 2015

CERTIFICATE

This is to certify that the project entitled "A parametric frailty approach to find the factors affecting the survival time of carcinoma stomach patients who are treated with surgery" is a record of original work done by Akhil Vijayan 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.

Sen 30/09/2015

Subhradev Sen

Lecturer in BioStatistics

Clinical Research and Biostatistics Division

Malabar Cancer Centre

Thalassery, Kerala, India

Forwarded by:

Dr. Joy Jacob

Head of the Department of Biostatistics,

St. Thomas College, Pala, Kerala



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Certificate

This is to certify that the dissertation entitled "**Analysis of time series count data using Autoregressive Conditional Poisson model**" of the candidate **Ms. Anjana George** for the degree of Master of Science in Biostatistics submitted to the faculty of science of Mahatma Gandhi University, Kottayam, is a record of her research work done under the guidance of **Ms. Tunny Sebastian, MSc., MPhil.**, Lecturer, Department of Biostatistics, Christian Medical College, Vellore.

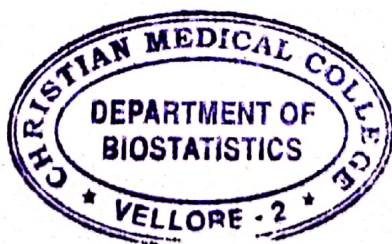
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Christian Medical College,

Vellore, India.



September 28, 2015



29th September, 2015

CERTIFICATE

This is to certify that the project entitled "*The Application of Repeated Measures ANOVA and Generalized Estimating Equations to Examine Continuous and Categorical Outcomes in a Longitudinal Study*" is a record of original work done by Ms. Anju Joseph in partial fulfilment 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 September 2015 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 of Fellowship or other similar title to any candidate of this or any other university.

Dr. Tinku Thomas
Associate Professor,
Division of Epidemiology and Biostatistics,
St. John's Research Institute,
Bangalore – 560 034

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St. John's National Academy of Health Sciences
Opp. B.D.A Complex, Koramangala
Bangalore - 560 034 INDIA
Ph: + 91-80-25532037

CERTIFICATE

This is to certify that the project entitled "EGFR-AN IMPORTANT PROGNOSTIC & PREDICTIVE MARKER IN ADENO CA LUNG: AN APPLICATION WITH AFT MODELING" is a record of original work done by Mr Arjun.C under my supervision impartial fulfilment of the requirement 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 on the basis for the award of any other degree or diploma or associateship or fellowship or other similar title to any other candidate of this or any other university.

Atanu Bhattacharjee 3.10.15
Dr. Atanu Bhattacharjee

Lecturer in Bio-Statistics

Clinical Research and Biostatistics division

Malabar cancer centre

Thalasseri, Kerala, India

Forwarded by:

Dr. Joy Jacob

Head of the Department of Biostatistics,

St.Thomas College,Pala,Kerala



CERTIFICATE

This is to certify that the project entitled "The Reliability of Mini Nutritional Assessment (MNA) questionnaire in screening malnutrition among elderly aged 60 years and above" is a record of original work done by Athira 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. Anil C. Mathew

Professor of Biostatistics

Department of Community Medicine

PSG Institute of Medical Sciences and

Research

Coimbatore, Tamil Nadu India

Dr. Anil C. Mathew Ph.D.,
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CERTIFICATE

This is to certify that the project entitled "ASSOCIATION BETWEEN DIETARY FAT INTAKE AND PROSTATE CANCER: A META-ANALYSIS" is a record of original work done by **Christeena Jose** 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

Professor & Head

Division of Cancer Epidemiology & Biostatistics



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Certificate

This is to certify that the dissertation entitled "**Comparison of Semi-parametric and Parametric models using Survival data**" of the candidate **Ms. Densia V Paul** for the degree of Master of Science in Biostatistics submitted to the faculty of science of Mahatma Gandhi University, Kottayam, is a record of her research work done under the guidance of **Ms. Thenmozhi .M, MSc.,** Associate Research Officer, Department of Biostatistics, Christian Medical College, Vellore.

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

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September 28, 2015

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CERTIFICATE

This is to certify that the project entitled "ASSOCIATION BETWEEN RED MEAT INTAKE AND COLORECTAL CANCER: A META-ANALYSIS" is a record of original work done by Devika T.G. 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

Professor & Head

Division of Cancer Epidemiology & Biostatistics

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CERTIFICATE

This is to certify that the project entitled "**DIET AND BLADDER CANCER: PRINCIPAL COMPONENT ANALYSIS**" is a record of original work done by **Dhanya Vijayan** under my supervision in partial fulfillment 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



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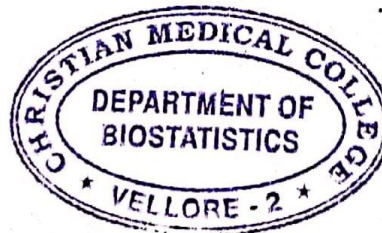
Dr. B. Antonisamy, Ph.D., FRSS., FSMS.,
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Certificate

This is to certify that this dissertation entitled "**Review of Goodness of fit statistics and Model selection tools in Multiple Logistic Regression Model**" of the candidate **Mr. Gokul K Gopinath** 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 **Mr. V. Silambarasan, MSc.,** Associate Research Officer, Department of Biostatistics, Christian Medical College, Vellore.

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September 28, 2015



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CERTIFICATE

This is to certify that the project entitled "STATISTICAL METHODS FOR THE ANALYSIS OF INCREASED ACCESS TO EMERGENCY CONTRACEPTION" is a record of original work done by **IRENE ELIZABETH JOY** 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.

Anil Mathew

Dr. Anil C. Mathew

Professor of Biostatistics
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CERTIFICATE

This is to certify that the project entitled "THE VALIDITY OF MINI NUTRITIONAL ASSESSMENT SHORT-FORM (MNA-SF) QUESTIONNAIRE IN SCREENING MALNUTRITION AMONG ELDERLY AGED 60 YEARS AND ABOVE IN URBAN COIMBATORE" is a record of original work done by JOMY JOSE 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.

Anil Mathew

Dr. Anil C. Mathew
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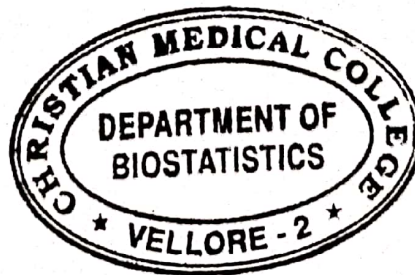
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Certificate

This is to certify that the dissertation entitled "Comparison of Generalized Poisson and Poisson Regression Models in Finding the Predictors of Number of Under Five Malnourished Children in Each Household in India" of the candidate Ms. Jossy John for the degree of Master of Science in Biostatistics submitted to the faculty of science of Mahatma Gandhi University, Kottayam, is a record of her research work done under the guidance of Mrs. Devika .S, MSc., Associate Research Officer, Department of Biostatistics, Christian Medical College, Vellore.

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

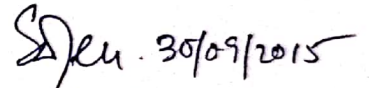
Professor and Head,
Department of Biostatistics,
Christian Medical College,
Vellore, India.



September 28, 2015

CERTIFICATE

This is to certify that the project entitled "**Competitiveness of Lifetime Distributions In The Light Of Endometric Cancer Survival Data**" is a record of original work done by **Mohin K Mohanan** 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.


Subhradev Sen

Lecturer in Biostatistics
Clinical Research and Biostatistics Division
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Dr. Joy Jacob

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CERTIFICATE

This is to certify that the project entitled "ASSESSMENT OF CANCER INCIDENCE IN THIRUVANANTHAPURAM: GEOGRAPHIC INFORMATION SYSTEM" is a record of original work done by Nandhana Satheesan 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. Preethi Sara George

Associate Professor

Division of Cancer Epidemiology & Biostatistics

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CERTIFICATE

This is to certify that the project entitled entitled "SURVEILLANCE OF BREAST CANCER: APPLICATION OF BOOTSTRAPPING" is a record of original work done by Revathy Sivan 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. Preethi Sara George

Associate Professor

Division of Cancer Epidemiology & Biostatistics

CERTIFICATE

This is to certify that the project entitled "AN APPLICATION OF CONCORDANCE CORRELATION COEFFICIENT TO DETERMINE THE RELATION BETWEEN SUVMAX AND TUMOR SIZE IN NON-SMALL CELL LUNG CANCER" is a record of original work done by Mr. Rohith Mohan under my supervision in partial fulfilment of the requirement 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 on the basis for the award of any other degree or diploma or associateship or fellowship or other similar title to any other candidate of this or any other University

Atanu Bhattacharjee 3.10.15
Dr. Atanu Bhattacharjee

Lecturer in Bio-Statistics

Clinical Research and Biostatistics division

Malabar cancer centre

Thalasseri, Kerala, India

Forwarded by:

Dr. Joy Jacob

Head of the Department of Biostatistics,

St. Thomas College, Pala, Kerala

CERTIFICATE

This is to certify that the project entitled "HEAD AND NECK CANCER PATIENTS TREATED WITH RADIOTHERAPY : MEASURING OF WAITING TIME THROUGH A CURE RATE MODELING APPROACH" is a record of original work done by Ms.SANJANA S under my supervision impartial fulfilment of the requirement 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 on the basis for the award of any other degree or diploma or associateship or fellowship or other similar title to any other candidate of this or any other university.

Atanu Bhattacharjee 3/10/15
Dr. Atanu Bhattacharjee

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CERTIFICATE

This is to certify that the project entitled "TIME TREND ANALYSIS OF CANCER INCIDENCE IN THIRUVANANTHAPURAM (2005-2014)" is a record of original work done by Saranya M Shaji 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. Preethi Sara George

Associate Professor

Division of Cancer Epidemiology & Biostatistics

DECLARATION

I hereby declare that the project entitled “**SURVEILLANCE OF CERVIX UTERI CANCER: DISTRIBUTION FITTING**” is a record of original work done by me under the guidance of Dr.Jagathnath Krishna K M in partial fulfilment of the requirements of the Degree of Master of science in Biostatistics of Mahatma Gandhi University, Kottayam and it 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.

Pala

20/10/2015

SHERIN GEORGE



DEPARTMENT OF BIOSTATISTICS
Christian Medical College, Vellore - 632 002, India.

Dr. B. Antonisamy, Ph.D., FRSS., FSMS.,
Professor & Head

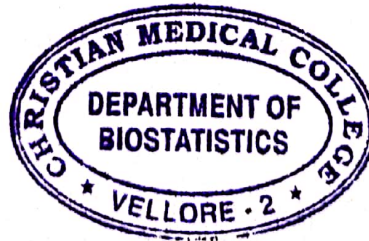
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Certificate

This is to certify that the dissertation entitled “**Modelling Strategies of Harmonic Regression and its Applications**” of the candidate **Ms. Sruthy Sathyan** for the degree of Master of Science in Biostatistics submitted to the faculty of science of Mahatma Gandhi University, Kottayam, is a record of her research work done under the guidance of **Mrs. Kavitha Ramanathan, MSc.,** Associate Research Officer, Department of Biostatistics, Christian Medical College, Vellore.

Dr. B. Antonisamy, Ph.D., FRSS., FSMS.,
Professor and Head,
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September 28, 2015