

**Dr. UNNIKRISHNAN T.**  
*Assistant Professor, Department of Statistics*  
*HoD of Mathematics and Data Science*  
*Sri. C. Achutha Menon Government College, Thrissur*  
*Mobile: 9400839525, E mail Id: unnikrishnan@govtcollegethrissur.ac.in*

**Date of Joining in Collegiate Education:** 24-11-2018 FN

**Previous services :**

10-05-2010 FN to 31-03-2011AN Research Fellow, Kerala Forest Research Institute.

01-04-2011FN to 13-01-2014 FN Assistant Professor, Department of Statistics, KVASU

13-01-2014 FN to 23-11-2018 AN Village Extension Officer, Dept of Rural Development.

[Pre Service Training in 14 subjects including Agriculture, Veterinary, Public Health, Nutrition, Engineering, Rural Development, Economics, Industries and Extension after Advise from PSC from 13.01.2014 to 14.07.2014 at ETC, Mannuthy]

**Teaching Experience :** UG 4 years, PG 5 years

**Qualification :** **B.Sc. Mathematics** (3 Year Course), **PGDCA** (1 Year Course), **Jyothisha Vidya Visarad** (3 year Diploma), **M.Sc. Mathematics** (2 Year Course), **M.Sc. Agricultural Statistics**(3 Year Course - certificate received after submission of Thesis.)  
<https://krishikosh.egranth.ac.in/handle/1/5810153809>.

**Ph.D. (Statistics)** from Farook College under University of Calicut.

**Area of interest (Broad) :**

Multivariate Statistics, Time Series Analysis, Design of Experiments, Non Parametric Statistics, Genetic Statistics, Bio Assay, Algebraic Number Theory, Graph Theory, Sample Surveys, Astrometeorology.

**Field of interest (Narrow)** Weather Forecasting Models using Time series analysis

**Field of Research** Non Parametric Analysis of Meteorological data.

**Guide ship details**

1. Dept. of Statistics, St. Thomas College Thrissur under Calicut University

2. Dept. of Statistics, Annamalai University (Presently Guiding 3 Scholars)

**Non U.G.C Research Projects Undertaken:**

**Principal Investigator for the project :** Weather Patterns in Kerala through Planetary Positions, as per Order No. F.No.2-50/IKS/RFP-5/2023-24/166 , of National Coordinator, IKS Division, Ministry of Education, Govt. of India, New Delhi, Dated:18/09/2023

**Research Project as Co-investigator :** Model for Prediction of Milk Price in Kerala, ICAR Funded Minor Project for Dept. of Statistics KVASU - Monograph submitted to KVASU as well as Governor of Kerala : Mercey, K.A., Unnikrishnan, T. ,Sethu Madhavan, T.P. and Justin Davis. 2013.

**Membership (s) in Academic Bodies :**

1. Academic Committee Member of Dept. of Collegiate Education: As per Order No. P(IT)/16406/2021/DCE Tvpd dtd 03.09.2021 by Director, Collegiate Education.
2. Centre for Continuing Education Committee Member of Dept. of Collegiate Education: As per Order No. CE/C/6232/2016 dtd 18/07/2022, by Director, Collegiate Education.

## **Ph.D. Guideship**

As per Order No. U.O. No. 7496/2023/Admn dtd. 04.05.2023 of Calicut University, recognized as a Ph.D. research guide in Statistics at St. Thomas College Thrissur as centre.

## **M.Sc. Guidance**

1. As per Order A2/38768/2021/DCE of Director , Collegiate Education, Kerala dtd 28/11/2021, guided Dissertation to M.Sc. of Aswathy, V. in KUFOS.
2. As per Order No. G3/8524/2023/DCE of Director , Collegiate Education, Kerala dtd. 04/03/2023, Guided M.Sc. Dissertation of Alfiya K.S. in KUFOS

## **Peer Reviewer**

1. Peer Reviewer for the Journal “Advances in Materials and Processing Technologies, Taylor & Francis Group.
2. Peer Reviewer for the Journal of Tropical Agriculture, KAU

## **Editorial Board Member**

- Editorial Board Member, “International Journal of Documentation and Information Science (IJDIS)” by the Rajagiri College of Social Sciences
- Magazine Staff Editor of College Magazine 2023-24.
- Joint Convener, Suvarnachutham, Golden Jubilee Documentary Committee, Sri. C. Achutha Menon Govt. College, Thrissur.
- Member (Correspondences), Achutham, Golden Jubilee Souvenir Committee, Sri. C. Achutha Menon Govt. College, Thrissur.

## **Research Publications:**

### **i. International publishers**

- Praseeja, C. B. Prasanth, C. B. Subramanian, C. and T. Unnikrishnan, 2023. Characteristics of SRIMIN-H distribution and its biomedical application, JP Journal of Biostatistics 24(1) (2024), 47-60. <http://dx.doi.org/10.17654/0973514324005>
- Praseeja C B, Prasanth C B, Subramanian, C. And Unnikrishnan, T. 2023. Characterization Of Chandbhas-P Distribution and Its Applications In Medical Science, Reliability: Theory & Applications, No. 18: 4(76) : 314-324
- Smitha M.S., Asna, A. C., Jalaja, S. Menon, Unnikrishnan,T. And Ajithkumar, B. 2022., Forewarning models of tea mosquito bug in cashew, Journal of Agrometeorology, 24(2):2583-2980.
- Unnikrishnan,T. 2020., Models for forecasting the number of covid 19 cases in Indian States, Current Medical Issues, 18(4):275-280.
- Unnikrishnan,T. Prasanth,C.B. and Ramya, M.S.2020.,Cointegrated movement of Covid cases with cured and deaths in Kerala, J. Shanghai Jiaotong University,16(7):417-423.
- Unnikrishnan T., Anilkumar, P. and Gopakumar, C.S. 2018.SARIMA models forecasting of weather parameters for Thrissur district, International Journal of Statistics and Applied Mathematics, 3(1): 360-367.
- Unnikrishnan T., Anilkumar P. and Siddique, K.H.M. 2017. Shift in date of onset of the southwest monsoon in India from 146 years of data exploring the change in distribution using non-parametricpolynomialestimators. international Journal of Research in Applied Science &Engg. Technology. 5(12): 668-673.

- Unnikrishnan T. 2013. Finding numbers satisfying the condition  $A_n+B_n= C_n$ , IOSR Journal of Mathematics, 7(4):01-03.
- Unnikrishnan T. and Ajitha T.K. 2011. Planetary influence on Global warming, Proceedings of the International conference on the impact of climate change and food security,3-5, March, pp. 306-308. (Proceedings with ISBN)
- Mercey, K.A. and Unnikrishnan T. 2011. ARIMA and Cointegration Technique to Predict the Price of Egg in Kerala of the International conference on Stochastic Modelling and Simulation, 15-17, December, pp 199-202. (ISBN 978- 81- 8424-743-5).
- Unnikrishnan T. and Ajitha T.K. 2011. Stochastic behavior of Pepper in Kerala, Proceedings of the International conference on Stochastic Modelling and Simulation, 15-17, December, pp 300-306 (ISBN 978- 81- 8424-743-5).
- Unnikrishnan T. and GSLHV. PrasadaRao. 2009. Astrometeorology – search for planetary influence on weather, Proceedings of the International conference on Climate Change Adaptation Strategies, 3-4, December, pp 39-42 (ISBN 978-81-7233-679-0).

## ii. National Publishers

- Deepthy M.S., Unnikrishnan T., Girish Varma G. and Prasad A. 2023. Statistical tool for the estimation of body weight of lactating cows from 2D photographs, Journal Of Veterinary and Animal Sciences (UGC Care Listed) Accepted for Publication as per order No. JVAS/AL/128/2023 Dated: 01/12/2023
- Unnikrishnan T., Anilkumar, P. and Siddique, K.H.M. 2023. Non-Parametric Polynomial Density Estimation for Circular Data Like Wind Direction, Recent Research Outcomes in Science, Govt. Arts & Science College RESEARCH JOURNAL, 11(2), ISSN: 2277- 4246, Peer Reviewed
- Unnikrishnan T., Anilkumar P. and Gopakumar C.S. 2022., “ Fitting the seasonal distribution of wind direction in central region of Kerala using Bernstein Polynomials”, MAUSAM, 73(2):229–236.
- Unnikrishnan T., Sandra M.B. , Snehamol P.R. , Sayooj T.R. , Prajith P.C. and Amal K.A. 2021. Shift in the Area under Arecanut in Kerala and Variability in Arecanut Production, Agrospheres : e-Newsletter, (2021) 2(5), 15-18 – ISSN : 2582 – 7022.
- Unnikrishnan,T., and Sunil V G. 2021. Forecasting Models for Economic Factors affecting Banana Cultivation in Kerala, Journal of KrishiVigyan, 9(1) : 150-155
- Fathima, R. Lucy, K.M., Ashok, N., Maya, S. and Unnikrishnan, T. 2015. Morphometrical Changes in the Adrenal Glands of Kuttanad Ducks during Post Hatch Period, Journal of Veterinary and Animal Sciences, 46(2):49-52.
- Unnikrishnan, T. Mercey, K.A., Sethumadhavan, T.P. and Justin Davis, 2015. Model for prediction of Milk Price in Kerala, Journal of Veterinary and Animal Sciences, 46(1):42-45
- Unnikrishnan, T. 2013. Design of Experiments, Module VI, Training in SPSS, KVASU.
- Unnikrishnan T.,2013. Time Series Analysis for Livestock Meteorology, Fundamentals of Livestock Meteorology, Vol.1., Chapter 14. Ed. GSLHV PrasadaRao and GirishVarma., KVASU.
- Pulari, S.R., Unnikrishnan, T. and Sunanda,C. 2014. Weather Forecasting and Astrometeorology, Astrological Magazine, Bangalore.
- Unnikrishnan,T. and Ashok, B. 2012. Statistical Tools for Pricing Issues in Milk Production in Kerala. Journal of Indian Veterinary Association. (ISSN-0975-5195). pp.17-23.

- Unnikrishnan T. and GSLHV. PrasadaRao. 2011. Astrometeorology – search for planetary influence on weather, Scientific Publishers (India), Ed. GSLHV PrasadaRao, pp 152-155.
- Unnikrishnan T. and Ajitha T.K. 2010. Application of ARIMA Models and Cointegration Techniques in Kerala Agriculture, Proceedings of the National Seminar on Interdisciplinary Applications in Statistics, Ed. Santhosh,S, 25-26, November. pp.130-143.
- Unnikrishnan,T., PrasadaRao, G.S.L.H.V. and Ajitha T.K. 2009. Astrometeorologyin Agricultural Operations, Proceedings of the national Workshop on Climate and Development, 29 June, pp1-7.
- Unnikrishnan,T. and Ajitha T.K. 2009. A Univariate Statistical approach to predict the onset of South West Monsoon in India, Proceedings of the national Workshop on Climate and Development, 29 June, pp8-16.

### **Books Published:**

1. Unnikrishnan T. 2024. Ganitha Charitham, Current Books, Thrissur. 236p.
2. Unnikrishnan T. 2019. Ganitham Lalitham, Current Books, Thrissur, 216p.
3. Unnikrishnan T. 2018. Kusruthikkanakkukal, Black Bird Publishers, Thrissur, 96p.
4. Unnikrishnan T. 2011. Programming with C, (ISBN 978-81-8465-368-7), Soothradhara,178p.
5. Unnikrishnan T. 2011. Numerical Analysis,114p.
6. Unnikrishnan T. 2009. Ganitham Engane Padikkam, (ISBN 978-81-8465-367-0), Krishna Publishers, Thrissur, 186p.
7. Unnikrishnan T. 2008. Programing with C and Numerical Analysis, Soothradhaara, 292p.

### **Paper Presentations:**

- Unnikrishnan T., Gopakumar Cholayil and Asokan Mulayath Variyath 2022. Weather Forecasting in Kerala based on planetary Positions, in National Seminar on Applied Indian Mathematics jointly organised by Indian Knowledge System under AICTE, Sri. C. Achutha Menon Govt. College Thrissur, SCMS Kalamassery and Madhava Ganitha Kendram in Kerala as part of Mathematics day during 20-22, December 2022.
- Unnikrishnan T, 2022. Astrology and conservation of nature in the seminar conducted by Dr. T.I.R. institute of Astrology at Thrissur.
- Unnikrishnan T. 2021. Gopakumar Cholayil and Murali Puranattukara 2021. Rainfall in kerala based on planetary positions, INTROMET, Indian Meteorological Society.
- Unnikrishnan T. 2019., Variability in Climatic Patterns and Planning Agricultural Production, International Seminar on Climate Emergency : A call to Action Post GraduateDepartment of Economics,Sree C. AchuthaMenon Government College,21-22, November 2019.
- Unnikrishnan T. 2018. Coconut Projections over Kerala in future climate, National Seminar on Recent Trends in Climate Change and Carbon Research, Calicut University, 26-28, February, 2018.
- Unnikrishnan T. 2018. Wind speed analysis across Thrissur, Central region of Kerala, National Seminar on Recent Trends in Climate Change and Carbon Research, Calicut University, 26-28, February, 2018.
- Unnikrishnan T. 2017. Shifting Njattuvelas and variability in onset of Southwest monsoon in India,International Seminar on Climate Change, Environment and Society, SreeSankaracharya University of Sanskrit, Kalady, 29-30, March,2017.
- Unnikrishnan T. 2012. Dynamics of Cashew Production in Kerala, National seminar on Recent trends in Statistics and related areas, Calicut University,15-17, March, 2012.

Unnikrishnan T. 2012. Hidden Patterns of weather through Astrometeorology, National seminar on Forecasting Sciences, Thrissur, 28-30, January, 2012

Unnikrishnan T. 2010. Application of ARIMA Models and Cointegration Techniques in Kerala Agriculture National Seminar on Interdisciplinary Applications in Statistics, Maharajas College, Ekm, 25 - 26, Nov, 2010.

### **Seminars / Workshops Organized:**

- Coordinator for the Two-Days National Seminar on Kerala Mathematics from 20th December to 21st December 2023, conducted as part of National Mathematics Day 2023 at Sri. C. Achutha Menon Govt. College Thrissur.
- Coordinator for the Three days International Workshop on Data Analysis using R, Python , Latex, Geogebra & GIS from 1st November – 3rd November 2023, funded by Department of Collegiate Education, Govt. of Kerala
- Organised a Two-Day National Seminar at SCMS Kalamassery on Applied Indian Mathematics jointly by Indian Knowledge System under AICTE, Sri. C. Achutha Menon Govt. College Thrissur, SCMS Kalamassery and Madhava Ganitha Kendram in Kerala as part of Mathematics day during 20-22, December 2022.
- Coordinator for International Seminar on Applied Statistics, Dept. of Statistics, SCAMGCT in association with Department of Economics and Statistics, Thrissur on 19th and 20th October, 2020.

### **Academic Responsibilities Undertaken**

- Member in the Academic Committee of Continuing Education, Govt. of Kerala.
- Member in Academic Committee of Collegiate Education, Govt. of Kerala.
- Member in Four Year UG (Statistics) Syllabus Preparation Committee of Calicut University
- Head of the Department of Mathematics with Data Science, Sri. C. Achutha Menon Govt. College Thrissur
- Guiding M.Sc. students from KUFOS for their M.Sc. dissertation as per the order from Collegiate Education.
- Member in Publication Committee of Kerala Veterinary and Animal Sciences University in 2013.
- Member in the committee for development of software for certificates in Veterinary University during 2011-14.
- Member in Monitoring and Evaluation Committee of KVASU in 2013.
- Member in Various Committees in Sri. C. Achutha Menon Govt. College, Thrissur from 2020 onwards.
- Coordinator for Various Seminars and Workshops in Statistics and Mathematics Departments.

### **Question Paper Setter for :**

- B.Sc. Degree of Kerala University.
- B.Sc. (Forestry) Degree of Kerala Agricultural University.
- B.Tech(Bio Technology) Degree of Kerala Agricultural University.
- B.Tech Dairy Science ) Degree of Kerala Veterinary and Animal Sciences University.
- B.Sc. (Statistics) Degree of Kannur University and for Kerala Public Service Commission.
- M.Sc.(Statistics) Degree of Farook College (Autonomous)
- Kerala Public Service Commission

**Office Charges held** NSS Programme Officer from 2019 -2022.

**Seminars Attended:**

National Seminar on Linear models and Design of Experiments, Department of Statistics, Govt. College for Women, Thiruvananthapuram on 21-23, January, 2019.

**Workshops as Resource Person**

“Weather Forecasting Techniques” in the seminar conducted by Dept. of Mathematics, MES College Kalladikkode, Palakkad.

“Inferential Statistics” – Two day workshop as resource person 21-22, January 2022 conducted by Department of home Science, Vimala College, Thrissur.

“Statistics for Sustainable Development’ - invited talk as resource person during Statistics day Celebrations conducted by Department of Economics and Statistics, Govt. of Kerala on 29th July 2020.

“Vedic Mathematics for fast mental calculations “ in Orientation programme on Academic Leadership Conducted by Academic Staff College, KVASU from 11.02.2016 to 09.03.2016.

“Principles of Vedic Mathematics”Two day National Seminar “Anantham Viswatho Mukham – Glimpses of Vedic Mathematics, conducted by Department of Mathematics, Bharatheeya Vidya Nikethan College of Teacher Education, Palakkad, 28-02-2020 and 29-02-2020.

**Workshops Attended:**

Summer Workshop on Research Methodology and Application of SPSS for Data Analysis at Albertian Institute of Management, Cochin on 11,12 and 13 April 2008.

One day Training in SPSS, Conducted by Directorate of Academics & Research, Kerala Veterinary and Animal Sciences University, 03.09.2013

National Workshop on Mobile Application Development, Government Victoria College, Palakkad on 4th - 5th December 2019.

Three day Workshop on Statistical Data Analysis in R Programming conducted by Centre for Skill development and Innovative Research from 14-16, Jan 2022.

**Refresher Courses Attended:**

“Computational Research Methods” conducted by UGC Malaviya Mission Teacher Training Centre from 14.09.2023 to 20.09.2023.

Four-Week Induction/Orientation Programme Faculty in Universities/Colleges/Institutes of Higher Education” 18 th May to 17 th June 2021, University of Delhi, Ministry of Education GoI.

Two-Week Refresher Course for Faculty in Universities/Colleges/Institutes of Higher education, 1st May to 16th May 2021 University of Delhi, Ministry of Education GoI.

“A Road map to Enhance Core Teaching Competencies in academic Landscape”, Conducted by Academic Staff College, KVASU from 14.02.2020 to 27.02.2020.

“Remote Sensing & GIS Technology and Applications for University Teachers & Government Officials” , 18 days refresher Course(online),conducted by Indian Institute of Remote Sensing (IIRS), ISRO Dehradun, from 13-06-2020 to 01-07-2020 with Enrollment No. 202070010132821

**Short Term Courses Attended:**

Three day Residential Training on “Academic Leadership for Excellence” at Indian Institute of Management, Kozhikkode from 30-10-2012 to 01-11-2012.

Three day residential Training on “Capacity Building Training for Teachers” of Collegiate Education Department of Kerala at Institute of Management in Government, Kochi from 11-02-2019 to 13-02-2019.

### **Courses handled (UG)**

Statistical Methods, Probability Theory, Statistical Inference, Applied Statistics, industrial Statistics, Operation Research, Mathematical Analysis.

### **Courses handled (PG)**

Time Series, Genetic Statistics, Design of Experiments, Modern Probability Theory, Sampling Theory, Bio Assay, Multivariate Analysis, Algebraic Number Theory, Real Analysis, Complex Analysis, Functional Analysis, Graph Theory, Differential Geometry, Practical Courses with Statistical Packages.

### **Long Term Trainings Attended :**

Passed with first class in Six Months Training at ETC, Mannuthy from 13.01.2014 to 14.07.2014 in the subjects : Rural Industries, Rural Engineering and Technology, Rural Economics and Planning, Rural Development Programmes, Community Development, Rural Sociology, Extension Education, Agriculture, Animal Husbandry, Cooperation, Panchayati Raj, Public health, Environmental Sanitation, Food and Nutrition etc.

### **Awards / Honours / Patents Conferred:**

Invitation from His Excellency Dr. A.P.J. Abdul Kalam, Former President of India on 26th September 2003 to meet him at Ernakulam during visit to Kerala, in connection with a partial proof to Fermat’s Last Theorem submitted as per his advise to IISc and IMSc.

### **Webinars Organised**

Coordinated an International Seminar on Applied Statistics, Dept. of Statistics, SCAMGCT in association with Department of Economics and Statistics, Thrissur on 19th and 20th October, 2020.

Seven day webinar “Haritham, Saphalam, Sundaram” for NSS volunteers of Sri. C. Achutha Menon Government College, Thrissur, Available in youtube channel of Dr. Soni T.L., NSS Programme Officer. Eminent guests of different disciplines were there each day.

### **Webinars attended**

Two days National Level Webinar on “Research Methodology in Social Sciences” Conducted by Govt. College, Thripunithura, Ernakulam, 26&27, April 2020.

Two days online workshop on “Sample size determination using G-Power Software”, conducted by Department of Statistics, St. Johns College, Agra on 23 and 24, May 2020.

Ten days short term online training programme on Moodle Based Learning Management System; from 5th May 2020 to 14th May 2020, organised by IQAC, Sree Neela Kanta Govt. Sanskrit College Pattambi.

Training in R Programming under National Skill Development Corporation during June -July 2020 online from Learn Vern Pvt. Ltd. Certificate date : 20-07-2020.

National webinar on Sharing the Economic Implications of Covid- Lock down from different States in India organised by Dept. of Ecoeconomics, Sri. C. Achutha Menon Govt. College, Thrissur on 5th June 2020.

National web based seminar on Recent trends in Statistical Theory and Applications, Webinar, Conducted by Indian Society for Probability and Statistics in association with Kerala Statistical Association during 29th June 2020 to 1st July 2020.

National Webinar on Basics of Python for Data Science organised by research department of Statistics, Nehru arts and Science College Kanhangad on 28th September 2020.

### **Extension Works**

- Working group member in Jalasanchaya Padhathi on Water Conservation of Distict Panchayath Thrissur as per order No. DSC(3)1580/2021 dtd 28.12.2021 of District Soil Conservation Officer Thrissur.
- Vice Chairperson, Sub Committee for Planning, Department of Economics and Statistics, Thrissur as per No. FS(2)776/2023/DOR dated 11.09.2023 fo Deputy Director Thrissur.
- Script and Lyrics for the feature film “Kedavilakku”, Produced by Sudheer C.B. under the banner of Yadhu Film Factory.
- Script for the Short Film for making awareness in Public Education (Koottamani), Gramasbha (Rules of Gramasabha), Veedum Sthalavum Vilpannakku (on Waste Management for Suchithwa Mission), Phalatholi (Waste Management), ...
- Script for the Documentaries of Veteran Teachers: Prof. T.S. Balasubrahmanian (Tholkkann Sammathikkaatha Balasubrahmanian) and Sri. Krinanunni Nair Master Thrithala (Thrithalam) who are teaching their subjects with more than 50 and 75 years continuously.
- Assisted through extension activities for building more than 200 houses in Govt. Schemes LIFE, PMAY and IAY while working as Village Extension Officer in Chowannur Block Panchayath .
- Implemented waste management system in every house in Choondal Panchayath based on the result of a survey conducted.
- Implemented Rain Water Harvesting systems in many areas of Choondal Panchayath of Chowannur Block.

**Membership** (s) in: NGOs, Cultural Organizations etc

- Member, VailoppillySmarakaSamithi, Thrissur.
- Member, Sarggaswaram, Thrissur.
- Member, Jyothi – JyothishaSamvadam, Thrissur.

Thrissur,

Dr. Unnikrishnan T.