## **CURRICULUM VITAE**



DR. BALA MURUGAN, D

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#### **OBJECTIVE:**

A Statistician position in the field of statistics utilizing skills in applied statistics, Biostatistics, economics, mathematics and computer technology.

## **SUMMARY:**

- ➤ Having 10+ years of design and development of analytical solutions and data analysis.
- Quantitative survey design: questionnaire design using Cardiff Tele form software for paper questionnaires.
- > Primary Research: Qualitative & Quantitative Techniques.
- > Secondary Research
- > Analyzing the Requirements and Datasets provided by the client for large volume of data.
- > Statistical analysis of quantitative data using SPSS and Excel.
- > Strong expertise in analytical and quantitative techniques including predictive modelling and multivariate analysis.
- Interested in carrying out challenging and innovative jobs.
- Flexible to work in any shifts.

#### TECHNICAL SKILLS:

Statistical Software : MS Excel, SPSS, Base SAS, EViews, SysStat, Stata, Gretl

Programming Languages : SQL, C, C++, LATEX
Databases : Oracle, MS-Access.
Operating Systems : Windows 9x/NT/2K/XP

### **EDUCATION:**

- ❖ Bachelors of Arts (B.A.,) in Economics from St.Xavier's College (Autonomous), Palayamkottai with the affliation of Manonmaniam Sundaranar University, Tirunelveli, India.
- ❖ Masters of Science (M.Sc.,) in Statistics with Computer Applications from Manonmaniam Sundaranar University, Tirunelveli, India.

- ❖ Master of Business Administration (MBA.,) in Information Systems from Bharathiar University, Coimbatore, India.
- ❖ Doctor of Philosophy (Ph.D.,) in Statistics (Awarded) at the Department of Statistics, Manonmaniam Sundaranar University, Tirunelveli, India.
- ❖ Pursuing Masters of Arts (M.A.,) in Economics from University of Madras, Chennai, India.

### E-LEARNING COURSE ATTENDED:

- Completed a training course Project Management Professional(PMP) from the Cybrary.
- Completed E-Learning Course Module in Open Government Data for Citizen Engagement from United Nations Public Administration Network (UNPAN).
- Completed E-Learning Course Module in Human Resources Managers Capacity Development from United Nations Public Administration Network (UNPAN).
- Completed E-Learning Course Module in Fundamentals of the UN E-Government Survey from United Nations Public Administration Network (UNPAN)
- Completed E-Learning Course Module in Strategic Intelligence from United Nations Public Administration Network (UNPAN).
- Completed E-Learning Course Module in Knowledge Management in Government Organization from United Nations Public Administration Network (UNPAN).
- Completed a Course in Data Gathering for Beginners offered by School of Data.
- Completed a Course in Immunization Coverage Data from the UNICEF in collaboration with WHO.
- Completed a Course Big Data and The Social Networks offered by The Institute for War and Peace Reporting.
- Completed a Course Right to Privacy: Data and Surveillance offered by Privacy International.
- Completed a Course Visualize Your Data with the Best Charts and Graphs offered by Infotimes.
- Completed a Course Cleaning and Analyzing Data offered by School of Data
- Completed a Course E-Commerce Analytics: From Data to Decisions from Google Analytics Academy.

- Completed a Course A Gentle Introduction to Scraping Data offered by School of Data.
- Completed a Course Responsible Leadership for Transparency and Good Governance from YALI Network.
- Completed a Course Developing Smart Goals for Successful Strategies offered by SMEX.
- Completed a Course Secure Passwords and Encryption of Data offered by Security First.
- Completed a Course Scrum Fundamental Certified (SFC) from VMEdu Inc.
- Completed a Course The Risks of Data-Intensive Systems offered by Privacy International.
- Completed a Course Six Sigma Yellow Belt Professional offered by 6Sigma Study, VMEdu, Inc.,
- Completed a Course Marketing Research Associate (SCMR-A) from SM Study, VMEduc, Inc.
- Completed a Course Google Analytics for Beginners from Google Analytics Academy.
- Completed a Course Right to Privacy: Introduction and Principles offered by Privacy International.
- Completed a Course Google Advanced Analytics from Google Analytics Academy.
- Completed a Course Planning for Monitoring and Evaluation from the Philanthropy University.
- Completed a Course Research and Evidence in UNICEF from the UNICEF.
- Completed a Course Getting Started with Google Analytics 360 from Google Analytics Academy.
- Completed a Course Results Based Management (RBM) from UNICEF.
- Completed a training course Big Data Fundamentals from the Big Data University.
- Completed a training course Introduction to Data Analysis with Demos from the Big Data University.
- Completed a training course Microsoft Forms: Creating Authentic Assessments from the Microsoft Education.

- Completed a training course Practical Project Management from the Cybrary.
- Completed a course Introduction to Python for Data Science Courses from the Data Camp.
- Completed a course Introduction to R Course from the Data Camp.
- Completed a course Building Gender IQ from the UNICEF in collaboration with UN Women.
- Completed a course IBM Blockchain Essentials from IBM Learning Platform.
- Completed a Course Digital Marketing Associate (SCDM-A) from SM Study, VMEduc, Inc.
- Completed a Course Basics of Scrum, Agile and Project Delivery from the Udemy.
- Completed a Course Certified Negotiation Associate from NG Study, VMEduc, Inc.
- Completed a Course Introduction to Project Management from the Udemy.
- Completed E-Learning Course 2 Modules in Project/Programme Planning from the International Federation of Red Cross and Red Crescent Societies.
- Completed a Course Cyber Security Course for beginners Level-I from the Udemy.
- Completed E-Learning 2 Courses in Choosing Data Collection Methods & Data Analysis and Action Planning from the International Resuce Committee.
- Completed E-Learning 2 Courses in Increase Data Security When Traveling & Encrypt Your Data from the Grovo.
- Completed training course Introduction to Monitoring and Evaluation offered by the International Federation of Red Cross and Red Crescent Societies.

### MERITORIOUS FELLOWSHIP

✓ I have received a Senior Research Fellowhip (SRF) for my Doctoral Research Programme under the category of Basic Science Research Fellowship from the University Grant Commission (UGC), Government of India, New Delhi.

#### ACADEMIC PROJECTS

↓ I did my Master of Business Administration (MBA) project entitled "Database Enterprise Manager" under the Guidance of Mr. A. Saravanan, An Architect – Projects, INETZ SOLUTIONS, Chennai – 26 submitted to Bharathiar University, Coimbatore on May 2009.

**Abstract**: The project titled "Database Enterprise Manager" is designed using Active Server pages .NET with Microsoft Visual Studio.Net 2005 as front end and Microsoft SQL Server 2000 as back end which works in .NET framework version 2.0. The Coding language used in VB.Net.

The system "Data Enterprise Manager" is developed to work in the front-end as Enterprise Database Management System. In this we can create/delete database. User can create the table/triggers/view/stored procedures and set Authentication for database and tables.

Matisse Database Enterprise Manager simplifies the transition from relational products to matisse by using familiar terminology to present database objects. The Database Enterprise Manager tool promotes Matisse superior technology for modeling real world applications, and for processing large volumes of data as well as for analyzing and reporting on complex business data.

## PROFESSIONAL ASSOCIATIONS MEMBER:

- United Nations Volunteer
- Internet Society
- Vivekananda Kendra
- International Society for Research and Development
- Freelancers Union
- ❖ All India Agricultural Students Association
- Association for Project Management
- International Facility Management Association
- ❖ American Indigenous Research Association
- ❖ World Academy of Science, Engineering and Technology
- Youth for Human Rights International
- International Research Association for Talent Development and Excellence
- Academy of Management
- International Economics, Development and Research Center
- ❖ Lean & Six Sigma World Organization
- World Economics Association
- ❖ Institute of Mathematical Statistics
- Institute for Supply Management
- ❖ Ascendens Asia International Researchers Club
- Council Representative of World Peace Committee
- ❖ Youth Ambassador of International Youth Society
- ❖ Global Goodwill Ambassador of GGA Sustainable Development Goals
- Youth Ambassador of Greenden
- Goodwill Ambassador of Thanks Wing

#### CONFERENCES ATTENDED:

## **International: Two (02, in number)**

- o Three days "International Conference on Recent Advances in Statistics and their Applications & 33rd Annual Convention of Indian Society for Probability and Statistics (ISPS)" organized by Department of Statistics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad (M.S), India during December 26-28, 2013.
- Two days "International Conference on "New Horizons in Statistical Modeling and Applications (NHSMA – 2015)" during Feb 27-28, 2015 at Department of Statistics, Presidency College, Chennai, Tamilnadu, India.

## **National: Five (05, in number)**

- □ Two days "National Conference on Graph Theory, Algebra and Analysis" (NCGAA) organized by Department of Mathematics, Sadakathullah Appa College, Tirunelveli − 11 in collaboration with the Department of Mathematics, Manonmaniam Sundaranar University, during March 6-7, 2012.
- ☐ Three days "National Conference on Stochastic Modeling and its Applications" organized by Department of Statistics, Manonmaniam Sundaranar University during September 26-28, 2012.
- ☐ One day "State Level Seminar on Cellular Automata" organized by Department of Mathematics on 1st March 2013 at Sathakathullah Appa College, Tirunelveli.
- □ Two days "National Seminar on "Recent Developments in Statistical Models and Methods 2014" (RDSMM-2014) held at the Department of Statistics, Government Arts College, Coimbatore during August 27-28 and presented a paper entitled "VAR Modeling for Paddy (Oryza Sativa) production" Co-authored by Dr.A.Rajarathinam in a contributory session.
- □ Two days "National Conference on Recent Trends in Statistical Theory and Practice (NCRTSTP-2015)" organized by the Department of Statistics, University of Madras, Chennai during 16-17 March, 2015.

#### WORKSHOPS / TRAINING PROGRAMMES ATTENDED:

### **International: One (01, in number)**

➤ Four days "International Workshop on Statistical Methods for Environmental Data Analysis" organized by C.R. Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS), Hyderabad, India during March 4-7, 2013.

## **National: Eleven (11, in number)**

- ❖ Two days Workshop on "Applications on Statistical Softwares" organized by the Department of Statistics, Manonmaniam Sundaranar University, Tirunelveli during 23-24 March 2004.
- ❖ Two days Workshop on "Mobilization on Impact-Making R & D Projects" organized by the Curriculam Development Cell, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nad, India on 11 & 12 December 2012.
- ❖ One day Workshop on "Violence Against Women" on 30<sup>th</sup> January 2013 organized by Department of Criminology and Criminal Justice, Manonmaniam Sundaranar University, Tirunelveli in Collaboration with Centre for Study of Social Exclusion and Inclusive Policy (CSSE & IP) Women's Studies Centre and South Asian Society of Criminology and Victimology (SASCV).
- ❖ Four days "Training Programme on Applications of SAS" organized by the Department of Statistics, Manonmaniam Sundaranar University, Tirunelveli during October 28-31, 2013.
- ❖ One day "Workshop on Statistical Computations Using Softwares" conducted by the Department of Statistics and Department of Management Studies, Manonmaniam Sundaranar University, Tirunelveli on 25 February, 2014.
- ❖ Four days "Workshop on High Dimensional Statistical Computational Using R" organized by Department of Statistics, Manonmaniam Sundaranar University, Tirunelveli. Tamil Nadu during July 21-24, 2014.
- ❖ One Week "Advanced Training Programme in Statistics" organized by Department of Statistics, Indira Gandhi College of Arts and Science, Puducherry during November 18-22, 2013.
- ❖ One day "Seminar on Quality Education and Good Governance in Institution of Higher Education" organized by Promotion of Ethics & Human Values Sponsored by the University Grants Commission, New Delhi held on 06.09.2013 at Manonmaniam Sundaranar University, Tirunelveli, India.
- ❖ Three days "Workshop for Beginners in Research on Statistical Software Packages" organized by Department of Statistics in associations with the Curriculum Development Cell, Manonmaniam Sundaranar University, Tirunelveli. Tamil Nadu during March 13 15, 2013.
- ❖ Three days "Workshop on Applications of SAS Software" organized by Department of Statistics, Manonmaniam Sundaranar University, Tirunelveli during February 25-27, 2013.
- ❖ Four days "Workshop of High Dimensional Statistical Computations Using R" organized by the Department of Statistics, Manonmaniam Sundaranar University, Tirunelveli during July 21-24, 2014.

#### PUBLISHED RESEARCH JOURNALS

- Rajarathinam, R. Vetriselvi and D. Balamurugan (2016). Unobserved Components Model For Forecasting Wheat Production. Int. J. Agricult. Stat. Sci., 12(1), pp. 161-167.
- Rajarathinam, A. and Balamurugan, D. (2017). Cointegration and Error Correction Modeling for BSE and NSE Stock Price Time Series Data. Research and Reviews Discrete Mathematical Structures. 4(3), pp. 30-41.
- Rajarathinam, A and Balamurugan, D (2018)., Econometric Modeling for Indian Stock Prices and Exchange Rates. Research Journal of Economics and Business Studies, Vol.07. No.05. 16-24.
- Balamurugan, D., Manikandan, B. and Rajarathinam, A., (2018)., Econometric Modeling for Oil Sector Stock Prices Time Series Data Research & Reviews: Journal of Statistics, Vol. 7(2): 27-34p.
- Rajarathinam A., Balamurugan D., Manikandan B., Canonical Relationship between Indian Stock Price Index and Exchange Rates. Research & Reviews: Journal of Statistics. 2019; 8(1): 12–16p.

### RESEARCH PAPERS PRESENTED

## International: One (01, in number)

Three Days International Conference on "Theory and Applications of Statistics and Information Sciences (TASIS-2018)" organized by the Dept. of Statistics, Bharathiar University, Coimbatore during January 5-7, 2018 and presented a paper entitled "Co-integration and Error Correction Modeling for BSE and NSE Stock Prices Time Series Data" co-authored with Dr. A. Rajarathinam in a Contributory Session.

## National: One (01, in number)

Two Days National Seminar on "Recent Developments in Statistical Models and Methods – 2014" organized by the Dept. of Statistics, Govt. Arts College, Coimbatore during August 27-28, 2014 and presented a paper entitled "VAR Modeling for Paddy (Oryza Sativa) Production" co-authored by Dr. A. Rajarathinam in a Contributory Session.

### **WORKING EXPERIENCE:**

## Ecorys India Pvt. Ltd. From March 2019 onwards

Role: Senior Data Analyst (Tamil Nadu Rural Transformation Project, Govt. of Tamil Nadu, World Bank Funded)

## Responsibilities:

- Questionnaire Preparation and Design using CS-Pro
- > Data Collection using Open Data Kit (Tablet) & Data Analysis using Statistical
- > Software like SPSS, R & STATA
- ➤ Pilot Study
- Project Concurrent Progress and Process Monitoring
- > District Diagnostic Study
- ➤ Value Chain Analysis
- > Participatory Growth Plan
- > Case Studies & Thematic Studies
- > Mid-line Study & End-line Study

# Newton Tech Solutions March 2018 – Feb 2019

Role: Academic Research Advisor of Big Data

### Responsibilities:

Trained the students to understand the basic concepts.
Guided the students to collect the journals related to their concepts.
Trained the students for data analysis using Python.

# Doctoral Research Fellowin Statistics Feb 2012 – Feb 2018

As a Research Fellow carried out a course work related to my thesis title "Econometric Modeling for Stock Prices Time Series Data" with the meritorious fellowship from the UGC, Govt. of India. During this period I have analyzed some aspects in connection with the research work and also participated and presented papers in National / International conferences and Workshops. I have published few papers in the internationally reputed journals and preparing some research papers out of my research findings.

# Mott MacDonald Limited Chennai May 2010 - Feb 2012

## Role: Consultant (Statistics Department)

As a Consultant mostly involved Primary and secondary research for Qualitative & Quantitative Techniques. Analysing the Requirements and Datasets provided by the client for large volume of data. Experience using a wide variety of parametric and non-parametric statistical techniques, such as, General Linear Models, correlations, descriptive, linear regressions, and logistic regression.

# Responsibilities:

- ✓ Quantitative survey design: questionnaire design using Cardiff Teleform software for paper questionnaires.
- ✓ Primary Research: Qualitative & Quantitative Techniques.
- ✓ Secondary Research
- ✓ Analysing the Requirements and Datasets provided by the client for large volume of data.
- ✓ Statistical analysis of quantitative data using SPSS and Excel.

### <u>Technical Environment and Tools Used:</u>

SPSS, Cardiff Teleform, Excel, Windows XP.

## Experience Record:

Team Member: Evaluation Study of Clusters under Scheme of Fund for Regeneration of Traditional Industries (SFURTI)

Assessment of the SFURTI scheme being launched by the Government of India for Regeneration of Traditional Industries. The scheme is being implemented by the Ministry of MS&ME, its organizations and institutions in collaboration with the State Governments, NGOs etc.

Team Member: Evaluation Study for Vazhndhu Kattuvom Project (Now as Pudhu Vazhlvu of Tamil Nadu Government with the support of World Bank assistance.

Assessment of the Vazhndhu Kattuvom Project being launched by the Government of Tamil Nadu with the financial support of the World Bank which is the empowerment and poverty elevation of the people in Tamil Nadu.

Team Member: Impact Evaluation of Financial Incentives for Setting up Hotels in 19 World Heritage Sites and National Capital Regions.

The Ministry of Tourism, Government of India launched financial incentives for the star category hotels of World Heritage Sites and National Capital Region.

Team Member: Evaluation study of handloom clusters under Mill Gate Price (MGPS) Scheme.

The Ministry of Textiles, Government of India launched Mill Gate Price Scheme for supply the yarn at affordable cost to the handloom clusters.

Team Member: Evaluation Study of Assistance to Disabled Persons for Purchase/Fitting of Aids and Appliances (ADIP)" Scheme

Assessment of the ADIP scheme being launched by the Government of India for the disabled persons. The scheme is being implemented by the Ministry of Social Justice & Empowernment, its organizations and institutions in collaboration with the State Governments,

NGOs etc.

Team Member : Social Assessment study of Rashtriya Madhyamik Shiksha Abhiyan (RMSA) Scheme.

Assessment of the RMSA scheme for universalisation of access to and improvement of quality in the secondary stage. The scheme is being implemented by the Ministry of HRD, Government Of India its organizations and institutions in collaboration with the State Governments.

Team Member: Evaluation of Ambedkar Hastsshilp Vikas Yojana (AHVY) Scheme:

Assessment of the AHVY scheme being launched by the Government of India for Regeneration of Traditional Industries. The scheme is being implemented by the Ministry of Textiles, its organizations and institutions in collaboration with the State Governments, NGOs etc.

Team Member for Data Verification and Statistical Analyses Using Tele form and SPSS Softwares

- Madhya Pradesh Tourism Satisfaction Survey
- ❖ Madhya Pradesh Health Expenditure Review
- ❖ CRIDA Climate Change Study
- School Children's Survey
- ❖ Impact Assessment of Rural Bio-Resource Complex
- ❖ Evaluation of Integrated Handloom Cluster Development Programme
- ❖ Post-enrolment Survey of the RSBY Programme
- ❖ Evaluation Study on Major Development Programmes Household (Beneficiary/Nonbeneficiary) Level Schedule
- ❖ Appraisal of Repositioning of IUCD in the Family Welfare Programme
- ❖ Impact Assessment of the Security Related Expenditure Scheme

# The Daily Thanthi (SMM) Chennai May 2006 – MARCH 2008

Role: Statistician

I was a professional in the Statistics Department at Daily Thanthi, which is India's No.1 Tamil News Paper with 2 years' experience in Data Analysis based on IRS, NRS and ABC Reports of the Tamil Nadu Based Dailies and monitoring Tamil Nadu Market.

I started my career as Statistician and have been able to quickly assume team leader responsibility. I have achieved this by focusing on learning and by channeling my strengths.

## Responsibilities:

- o Monitoring Tamil Nadu Market.
- o Preparing a special supplement for Daily Thanthi.
- Preparing MIS Reports for Marketing department from Indian Readership Survey (IRS), National Readership Survey (NRS) and Audit Bureau of Circulation (ABC).
- o Built the Space Audit database for Daily Thanthi.
- o Built the SPAN (Space Analysis) software with Daily Thanthi Software team.

## EXTRA CURRICULAR ACTIVITIES:

I have received a United Nations Volunteer Programme Certificate of appreciation for Create Awarness on mobile application in recognition of my contribution to the Sustainable Development Goals from the Marie Annie Charitable Trust in collaboration with Ministry of Ministry of Youth Welfare and Sports, Government of India.
I have received a United Nations Volunteer Programme Certificate of appreciation for Social Media Management in recognition of my contribution to the Sustainable Development Goals from the Drishti Foundation Trust in collaboration with Ministry of Ministry of Youth Welfare and Sports, Government of India.
I have received a Certificate of Commitment from the Central Vigilance Commission, Government of India for adopted the Integrity Pledge and is committed to uphold highest standards of honesty & integrity and to follow probity and rule of law in all walks of life.
Actively participated as National Serivice Scheme Volunteer of the St. Xavier's Higher Seconary School, Palayamkottai and actively associated in the special camp held at Nochikulam during the period from 16.01.1998 to 25.01.1998.
Actively participated as National Serivice Scheme member of the St. Xavier's Higher Seconary School, Palayamkottai in the Regular N.S.S. activities for 240 hours, for the year 1997 to 1999.
Actively participated as National Service Scheme Volunteer in B.A., Economics of Unit No.32 and completed a period of two years from 1999 to 2001 at St. Xaver's College (Autonomous) Palayamkottai affliated to Manonmaniam Sundaranar University, Tirunelveli, India.

	Actively participated in the World Guinness Record Event World Largest Human National Flag Formation, organized by Rotary International District 3230 with News7 Tamil, at YMCA College of Physical Education in Nandanam, Chennai, Tamil Nadu, India on 7 <sup>th</sup> December 2014.
	Actively participated in the World Water Day Campaign through Social Media's Campaign to raise awareness and support for water and sustainable development. World Water Day 2015 is coordinated by United Nations Development Programme (UNDP) on behalf of UN-Water on 22 <sup>nd</sup> March 2015.
	I have received a certificate for Rashtriya Ekta Diwas Pledge from the Government of India.
	I have received a Certificate of Participation for the World's Largest Lesson and supporting the Global Goals for Sustainable Development.
	I have received a certificate for World Soil Day Pledge from the Government of India.
	I have received a certificate for Fuel Conservation Pledge (PCRA) from the Government of India.
	I have received a certificate for Human Rights Pledge from the National Human Rights Commission, Government of India.
	I have received a certificate for Women Rights Pledge from the National Commission for Women, Government of India.
	I have received a certificate for Namami Gange Pledge from the National Mission for Clean Ganga, Government of India.
	I have received a certificate for TB Free India Pledge from MoH & FW, Government of India.
	Actively participated and received a certificate in the World Water Day 2018 Campaign Nature for Water" calling on the world to consider nature based solutions to our water challenges. World Water Day is coordinated by The Convention on Biological Diversity, UN Environment and UNESCO on behalf of UN Water on 22nd March 2018.
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'D'	JULIA DELIMENT

# PER

: Bala Murugan.D Full Name

Father's Name : S.Dhanushkodi

Marital Status : Divorced

DOB : 20-12-1981 Nationality : Indian

Communication Address : 14.C, Kariya Nayanar St.,

Near Palai Bus Stand, Palayamkottai, Tirunelveli – 627002. Tamil Nadu.

## LANGUAGE CAPABILITY

Tamil : Spoken – fluent; written – fluent; reading – fluent English : Spoken – fluent; written – fluent; reading – fluent

## **REFERENCES**

Prof. Dr. A. Rajarathinam M.Sc., M.Phill., PGDCA., Ph.D.,

Professor,

Department of Statistics,

Manonmaniam Sundaranar University,

Tirunelveli – 627012 Tamil Nadu, INDIA.

Place: Tirunelveli

Contact Number: 8220226545

Date: Yours Truly

(D. Bala Murugan)