

Dr. S. KARTHIGEYAN

Assistant Professor
PG & Research Department of Mathematics
Dr. Ambedkar Government Arts College
Vyasarpadi, Chennai – 600039
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Personal Details

Name	Dr. S. KARTHIGEYAN
Designation	Assistant Professor of Mathematics
Academic Qualification	M.Sc., Ph.D., M.B.A.

Teaching Experience

Designation	Department	Institution	Period
Assistant Professor	Mathematics	Dr.Ambedkar Government Arts College, Vyasarpadi, Chennai – 39	20.07.2010 to till date
Assistant Professor	Mathematics	L. N. Government college, Ponneri – 601204	26.12.2007 – 19.07.2010
Lecturer	Mathematics	College of Engineering, Guindy, Anna University, Chennai - 25	18.02.2005 – 24.12.2007
Visiting Lecturer	Mathematics	College of Engineering, Guindy, Anna University, Chennai - 25	16.06.2001 – 17.02.2005
Lecturer	Mathematics	Sree Muthukumaraswamy College, Chennai – 118	01.07.1999 – 30.06.2000

- **Handled Courses of M.B.A. Programme**, Centre for Distance Education, Anna University, Chennai – 600 025 on weekends from 2007 to 2019.
- **Visiting Faculty**, Department of Management Studies, College of Engineering, Guindy, Anna University, Chennai – 600 025 during evening from August 2000 to December 2011.
- **Guest Lecturer**, Department of Mathematics and Computer Science, Dr. Dharmambal Govt. Polytechnic for Women, Tharamani, Chennai – 600 113, from September 2000 to April 2001.

Area of Specialization

- Operations Research – Scheduling, Fuzzy Scheduling, Fuzzy Inventory Models

Research Supervisor

- Recognized Research Supervisor in Bharathiar University, Coimbatore.
- No. of Ph.D. Scholars Guiding : 2
- No. of Ph.D. Scholars Guided : 1
- No. of M.Phil. Students Guided : 4
(Bharathidasan University, Mother Theresa Women University, Annamalai University, Alagappa University)
- No. of M.Sc. (Mathematics, Computer Science & Information Technology) Projects Guided : 20
(Anna University Chennai)
- No. of M.Sc. (Mathematics) Projects Guided : 8
(Women Christian College, Chennai)
- No. of M.B.A. Students Guided : 140
(Distance Education, Anna University Chennai)

Membership in Professional Bodies

- Operations Research Society of India (ORSI), Chennai Chapter
- Ramanujan Mathematical Society, Life Member

Ph.D. Thesis Completed Under My Guidance

- **Jayanthi S.E.** (Reg. No. Ph.D.-CB-JUL2011-0308), (JULY, 2018), “Minimization of Total Weighted Earliness and Tardiness in Single Machine Scheduling with Fuzzy Processing Times and Fuzzy Due Dates using Meta-Heuristics”, Research and Development Centre, Bharathiar University, Coimbatore - 641046. Viva-voce Date: 26.11.2020.

Author for Book

- **Karthigeyan S.**, (2007), “Statistics for Management” – Course Material for First Semester (Centre for Distance Education, Anna University, Chennai) M.B.A. Students.

Resource Person

Sl. No.	Institution	Department	Topic	Date
1.	Alpha Arts and Science College, Porur, Chennai – 116.	Mathematics	Webinar on “Operations Research in Management”	09.05.2022
2.	R. B. Gothi Jain College for Women, Redhills, Chennai –	Mathematics	Why do we need to Learn Mathematics?	14.03.2022

	52.			
3.	Adhiparasakthi college of arts and science, Kalavai, Vellore Dist.	PG Dept. of Mathematics	Applications of Mathematics and Statistics in Real Life	10.03.2016
4.	Alpha Arts and Science College, Porur, Chennai – 116.	Mathematics Shift II	Workshop on “Statistical Applications”	23.01.2016
5.	Annai Violet College of Arts and Science, Pattaravakkam, Chennai.	Mathematics	Statistics and Operations Research in Real life	16.09.2015
6.	Alpha Arts and Science College, Porur, Chennai – 116.	Mathematics	Basics and Applications of Operations Research	12.08.2015
7.	Saveetha School of Engineering, Saveetha University, Chennai – 602105.	Science & Humanities (Mathematics)	Elements of Queuing Theory and its Applications	05.03.2015
8.	Sri Ganesh College of Arts and Science, Salem	Mathematics	Basics of Operations Research and Scheduling	08.01.2015
9.	R. B. Gothi Jain College for Women Arts and Science, Redhills	Mathematics	Mathematics in Real Life	03.09.2014
10.	Women’s Christian College	Mathematics	Elements of Operations Research and Scheduling	28.09.2013
11.	Thirumurugan Arts and Science College for Women	Mathematics	Beyond and Behind the theory of Operations Research	16.09.2013
12.	Dr. M.G.R. Janaki College of Arts and Science for Women	Mathematics	Operations Research ?	04.09.2013
13.	NIIT VSAT programme, Nungambakkam, Chennai	Mathematics	Engineering Mathematics, Series of Lectures	15.02.2013, 22.02.2013, 01.03.2013, 15.03.2013, 05.04.2013
14.	C.T.T.E. College for Women, Sembium, Chennai	Mathematics	Applications of Operations Research in Real life	07.02.2013
15.	Mahalakshmi Women’s college for Arts and Science, Paruthippattu, Avadi.	Mathematics	Operations Research: Introduction & Applications	24.01.2013
16.	Soka Ekeda Arts and Science college for women, Madhanakkupam, Chennai	Mathematics	Operations Research: Introduction & Applications	22.01.2013
17.	Magna Engineering College, Redhills	Mathematics	Applications of Mathematics in Engineering	08.11.2012
18.	NIIT VSAT programme,	Mathematics	How maths can save your	30.10.2012

	Nungambakkam, Chennai		life? and Introduction to matrices.	
19.	Annai Velankanni college for Women, Saidapet, Chennai	Mathematics	Applications of Mathematics in Real Life	27.09.2012
20.	Perunthalaivar Kamarajar Matriculation Higher Secondary School, Minjur – 601 203	Ramanujan Club Fest	General Mathematics	13.01.2012
21.	State Level Seminar on “Mathematics – Schema of Diverse Dimensions”, MOP Vaishnav College for women, Chennai	Mathematics	Recent Development in Single Machine Scheduling	04.12.2010
22.	Thiruthangal Nadar College, Chennai	Mathematics and Computer Science	Object Oriented Mathematical Programming	February, 2011
23.	C.T.T.E. College for Women, Sembium, Chennai	Mathematics	Origin and Scope of Operations Research	24.01.2011
24.	MOP Vaishnav College for Women, Chennai	Mathematics	Introduction to Mathematical Programming	03.12.2009 FN
26.	Bharathi Government Arts College for Women, Chennai	Mathematics	Introduction to Statistics and its applications	03.12.2009 AN
27.	Ethiraj College for Women, Chennai	Mathematics	Applications of Optimization Techniques in Real time problems	27.08.2009
28.	St.Thomas College, Koyembedu, Chennai	Mathematics	Introduction to Scheduling	12.01.2009
29.	Agarsen College, Madhavaram, Chennai – 60	Mathematics	Operations Research – A survey	09.01.2009
30.	Sri Devi Arts and Science College, Ponneri	Mathematics	Applications of Statistics	March, 2008
31.	Agarsen College, Madhavaram, Chennai – 60	Mathematics	Introduction to Sampling	February, 2008
32.	Vel Multi Tech Sri Rangarajan Sakunthala Engineering College, Avadi	Computer Science and Engineering	Object Oriented Analysis and Design	August, 2005
33.	Ambattur Township High School, Korattur, Chennai	Mathematics Club	General Mathematics	28.08.2000

Academic Auditor

- Served as an External Academic Auditor in PG Department of Mathematics, Women’s Christian College, Chennai.

- Served as an External Academic Auditor in Department of Mathematics, MOP Vaishnav College for Women, Chennai.

Board of Studies

- Served as Board of Studies Member for UG and PG courses of School of Engineering at Vels University, Pallavaram, Chennai – 117.
- Served as Board of Studies Member in Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai – 39.

Doctoral Committee Member

- Served as a Doctoral Committee Member in Anna University Chennai, SRM University, Anna University Coimbatore.

• Research Publications

• National / International Journal Publications

1. Jayanthi S.E. and **Karthigeyan S.**, (2013), “One-operation Jobs scheduling under Fuzziness – A review”, International Journal of Fuzzy Mathematics and Systems, Vol. 3, No.3, pp. 251-257. [ISSN 2248-9940].
2. **Karthigeyan S.**, Balarama murthy S. and Saranya A. (2015), “Fuzzy Optimized production EOQ model with deterioration rate and allowing the shortages”, International Journal of Applied Engineering Research, Vol.10, No.80, pp. 13-17. [ISSN: 0973-4562 (printed version); ISSN: 1087-1090 (online version)] (Scopus Indexed).
3. Jayanthi S.E., **Karthigeyan S.** and Anusuya S., (2017), “Minimizing earliness and tardiness costs with fuzzy processing times and fuzzy due dates in single machine scheduling using QPSO”, International Journal of Pure and Applied Mathematics, Vol. 115, No. 8, pp.437-442. [ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (online version)] [Special Issue] (Scopus Indexed).
4. Jayanthi S.E. and **Karthigeyan S.**, (2017), “Minimizing weighted earliness and tardiness under fuzziness using Firefly Algorithm”, International Journal of Applied Engineering Research, Vol. 12, No. 24, pp. 13974-13980. [ISSN: 0973-4562] (Scopus Indexed).
5. Balarama murthy S., **Karthigeyan S.** and Pragathi J., (2017), “Fuzzy Inventory Control Problem with Weibull Deterioration Rate and Logarithmic Demand Rate”, International Journal of Pure and Applied Mathematics, Vol. 117, No.11, pp. 335-344. [ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (online version)] [Special Issue] (Scopus Indexed).

6. Balarama murthy S. and **Karthigeyan S.**, (2020), “Fuzzy Inventory Model with Quadratic Demand, Linear Time Dependent Holding Cost, Constant Deterioration Rate and Shortages”, *Malaya Journal of Matematik*, Vol. S, No.1, pp. 157-162. [ISSN: 2319-3786 (printed version); ISSN: 2321-5666 (online version)].

• Paper Presented In Conferences / Seminars / Workshops

1. **Karthigeyan S.** and Kumar R.B. (2002), ‘Single Machine early / tardy cost problem with setup times’, Sixth Annual conference: The Society of Operations Management, December 20-22, I.I.M. Kozhikode.
2. **Karthigeyan S.** and Kumar R.B. (2004), ‘Minimizing the total early, tardy and setup costs with distinct ready times on a single machine scheduling’, International conference on soft computing , May 28-29, Bharath Institute of Higher Education and Research (Deemed University), Chennai - 73.
3. Delhibabu R. and **Karthigeyan S.**, (2009), ‘Optimal Recovery Schemes in Distributed Computing a Short Survey’- International Conference on Mathematics and Computer Science 2009 (ICMCS 2009), January 5-6, Loyolla College, Chennai, Vol 2., pp.458-461.
4. **Karthigeyan S.**, (2011), “Single machine scheduling with early, tardy and setup costs – A review”, National Seminar on *Recent Developments in Pure and Applied Mathematics*, January 20th and 21st 2011, The Standard Fireworks Rajaratnam College for Women, Sivakasi.
5. **Karthigeyan S.** and Jayanthi S.E., (2012), “A survey on Fuzzy-Production Scheduling”, National Seminar on *Frontiers of Mathematics*, 15th and 16th October, Ethiraj College for Women, Chennai – 8, pp. 125-138.

• Participated In Conferences / Seminars / Workshops / Webinars/ Trainings

- Served as a Chair person for the paper presentation session in the “International Conference on Recent Strategies in Mathematics and Statistics (ICRSMS2022)” organized by the department of Mathematics, Stella Maris College in collaboration with the department of Mathematics, Indian Institute of Technology, Madras from 19.05.2022 to 21.05.2022.
- Ten hours of Faculty Development Program on “Leadership Skills (Online Live FDP)” conducted by ICT Academy on 07.02.2022 to 11.02.2022.

- Received a badge “Certified Digital Teacher” from ICT Academy on 07.02.2022.
- Ten hours of Faculty Development Program on “Idea Generation Methods (Online Live FDP)” conducted by ICT Academy on 24.01.2022 to 29.01.2022.
- Three days International workshop on “Numerical and Analytical Techniques in Engineering Problems” (IWNATEP-2002) organized by the Department of Mathematics, SRM Institute of Science and Technology, Kattankulathur, held from 19.01.2022 to 21.01.2022.
- One week online Certificate Course on “Digital Teaching Techniques” organized by ICT Academy from 27.12.2021 to 31.12.2021
- One day Online Workshop on “Research Methodology in Mathematics”, organized by Department of Mathematics, Shri Muktanand College, Gangapur, Aurangabad District, on 20.07.2021.
- Twelve hours of Faculty Development Program on “Introduction to Big Data Analytics (Online Live FDP)” conducted by ICT Academy on 26.04.2021 to 30.04.2021.
- Six days STTP on “Innovative Tools for Mathematics” conducted by the Department of Science and Humanities of Hindusthan College of Engineering and Technology, Coimbatore, from 03.05.2021 to 08.05.2021.
- One day Webinar on “Hands on Training E-Certificate Generation with G-Suite”, Queen Mary’s College, Chennai – 04, on 17.07.2020.
- Three-day Online Faculty Development Programme on “Fuzzy Mathematics and its Applications”, Department of Mathematics, Government College Daman, Nani Daman – 396210, from 11.07.2020 to 13.07.2020.
- One day Webinar on “Mathematical Modeling of Infectious Diseases with Special Focus on COVID-19”, Division of Mathematics, School of Advanced Sciences, Vellore Institute of Technology, Chennai, held on 02.07.2020.
- One Week Online Faculty Development Program on “Exploring Innovations in Mathematical Sciences”, Sathyabama Institute of Science and Technology, Chennai, from 25.06.2020 to 01.07.2020.
- One day Webinar on “An Invitation to Functional Analysis”, Quaid-E-Millath Government College for Women, Chennai – 2, held on 24.06.2020.

- One day Webinar on “Enhancement of Mathematical Education using SAGEMATH”, Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai – 600039, held on 17.06.2020.
- Served as a Chair person in two days National Seminar on “Advances In Algebra and Analysis”, Queen Mary’s College, Chennai – 600004, from 30.01.2020 to 31.01.2020.
- Acted as a Referee in Kanchipuram and Chengalpattu district level "Jawaharlal Nehru Science and Mathematics Exhibition", during 2015-16 academic year.
- Two days workshop on “Role of Youth Health Clubs on Non-Communicable Diseases”, Cancer Institute (WIA), Adayar, Chennai held on 30.07.2013 and 31.07.2013.
- One day National Symposium on “Recent Advancements in Mathematics (NSRAM – 2012”, Loyola College, Chennai – 34, held on 21.11.2012.
- Two days National Level workshop on “Recent Advances in Mathematical Computing”, VIT University Chennai Campus, Chennai – 48 held on 30.11.2012 and 01.12.2012.
- One day Seminar for YRC Programme Officers sponsored by IRCS, TNB held at Queen Mary’s College, Chennai – 4 on 05.08.2011.
- One day National Seminar on “Mathematical Modeling through Computational Intelligence” held at Meenakshi College for Women, Chennai – 24 on 11.08.2010.
- Five-day workshop on “Easy Now (Multiple deliverables from single electronic source for ODL system)” held from 01.02.2010 to 05.02.2010 at EMMRC, Anna University Chennai, Chennai – 600025.
- Two-day workshop on “ETV/e-content production” held at EMMRC, Anna University Chennai during 29.01.2010 and 30.01.2010.
- Two day National Level Technical Seminar on “Research issues in Operations Management” held at Anna University, Chennai – 25 from 22.05.2008 to 23.05.2008.
- The CLIA workshop on “Semantic Approaches to Information Management” (SEMiMAN 2008), Department of Computer Science and Engineering, Anna University, Chennai – 25, during 14.03.2008 and 15.03.2008.
- Three-day workshop on “Application of SPSS for Data Analysis” conducted by Everonn Learning Academy, Chennai from 16.08.2007 to 18.08.2007.

- TEQIP funded One-day workshop on “Mentoring youth and Adolescents” at Anna University Chennai on 16.05.2007.
- TEQIP sponsored faculty development training programme on “Quantitative Techniques for Research in Engineering and Management” at Department of Industrial Engineering, Anna University Chennai during 08.02.2007 and 09.02.2007.
- Faculty Development training programme on “Quantitative Techniques for Research in Engineering and Management”, Centre for Faculty Development, Anna University, Chennai – 25, from 05.12.2005 to 07.12.2005.
- Workshop on “Reliability and Warranty”, ORSI, Chennai Chapter, Anna University, Chennai on 20.12.2004.
- Four-days International Conference on “Operations Research for Development” (ICORD 2002), conducted by Department of Mathematics, Anna University, Chennai – 25 from 27.12.2002 to 30.12.2002.

• **Orientation / Refresher / Other Equivalent Courses attended**

Name of the course	Name of the Academic Staff College / Univeristy / Institution	Duration in days	Period	
			From	To
Orientation Course	ASC - University of Madras, Chennai	30	26-12-2007	24-01-2008
Refresher Course in Mathematics	ASC - University of Madras, Chennai	21	05-11-2009	25-11-2009
Refresher Course in Mathematics	ASC - University of Madras, Chennai	21	05-11-2014	25-11-2014
Refresher Course in Computer Science & Information Technology (Inter-Disciplinary) – Batch IX	UGC-HRDC - University of Madras, Chennai	14	08-11-2019	21-11-2019
130 th Online Short Term Course on E-Content Development	UGC-HRDC- Gujarat University	7	31-05-2021	06-06-2021
Orientation Course for NSS PO	Madras School of Social Work, Chennai	6	20-02-2012	25-02-2012

- **Successfully passed The Accounts Test for Executive Officers (Test Code No. 114), conducted by TNPSC (Register No. 020470, Date of Exam: 21.12.2009 FN, Place: Tiruvallur), published in the Gazette dated 16.03.2010, page no. 490.**

• **Workshop Conducted (as Resource Person)**

- Workshop Title : “Statistical Applications”
Place and Date: Department of Mathematics, Alpha Arts and Science College, Porur, Chennai-116, from 22.01.2016 to 23.01.2016
- Workshop Title : “Sampling Distribution, Estimation and Testing of Hypothesis”
Place and Date: Department of Mathematics, Balamani Arunachalam College of Engineering, Maraimalai Nagar, Kancheepuram Dt, from 15.12.2010 to 18.12.2010.
- “Career Guidance Programme” for +2 students at Thiyagi TSK Higher Secondary School, Mathur, Kanchipuram District on 06.12.2007 arranged by NSS Unit II and VIII of CEG, Anna University, Chennai – 25.

• **Administrative Post Held**

- **Head**, Department of Mathematics, L. N. Government College, Ponneri – 601204 from 02.03.2009 to 19.07.2010.

• **Outstanding Experience**

- Served as **NSS Programme Officer**, Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai from August 2011 to July 2016.
- Served as **YRC Programme Officer**, Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai from July 2011 to July 2013.
- Served as **NSS Programme Officer**, CEG, Anna University, Chennai during September – December, 2008 and conducted a Special Camp at Vallakkottai village, Kancheepuram District which enabled the unit to receive the distinguished award as “**the best unit of the year 2008**” among all the engineering colleges under the control of Anna University Chennai.
- Served as **an active volunteer** during the 6th National Children’s Science Congress 98, held at Anna University, Chennai, during December 27-31, 1998.

• **Development Activities**

- Nodal Officer, new voters’ enrollment in the voter list, Dr. Ambedkar Govt. Arts College, Vyasarpadi, Chennai – 39.

- M.Phil. (Mathematics) and M.Sc. (Mathematics and Computer Science) Final year project Viva-Voce internal Examiner, at Department of Mathematics, College of Engineering, Anna University, Guindy, Chennai.
- M.B.A. Final year project Viva-Voce Internal Examiner, Distance Education, Anna University, Chennai.
- M.B.A. Final year project Review committee member, Distance Education, Anna University, Chennai.

• Actively involved in revising the syllabus of the following subjects:

- “Operations Research, Resource Management Techniques, Programming in C” for B.Sc. Mathematics and Optimization Techniques, Resource Management Techniques, Visual Programming, Java Programming, Programming in C++” for M.Sc. Mathematics, Department of Mathematics, Dr. Ambedkar Govt. Arts College, Vyasarpadi, Chennai-39. (From 2011 onwards)
- “Statistics for Management” for M.B.A. (2002, 2004), “Probability and Statistics” for M.Sc. Environmental Science (2004) at Department of Mathematics, Anna University, Chennai-25.
- “Engineering Mathematics” for Diploma courses (2004) at Dr. Dharmambal Govt. Polytechnic for Women, Tharamani, Chennai – 113.

- **Served as an External Examiner, Setting Question Papers for various Colleges (Government and Government Aided) and Universities (University of Madras, Thiruvallur University Vellore, Vel’s University, Chennai) in Chennai and Other districts of Tamilnadu**

• Additional Responsibilities

- Coordinator for Students Grievance Cell, Dr. Ambedkar Government Arts College, Vyasarpadi, Chennai.
- Class Tutor
- Discipline duty
- Mathematics Department Syllabus Revision Committee member
- Mathematics Department AQAR preparation team member till AY2019-20
- Mathematics Department Academic Audit Report preparation team member.
- Mathematics Department BOS Report preparation team member.
- Mathematics Department website details preparation team member.
- Mathematics Department UG and PG Admission duties.
- University and College level Evaluation and Invigilation
- Member in Organizing Guest lecturers and Mathematics department student events.