

## General Information

a. Name	:	R. Krishnakumar
b. Date of Birth	:	12.05.1970
c. Address	:	PG & Research Department of Mathematics, Ururu Dhanalakshmi College, Kattur, Tiruchy.
d. Designation	:	Associate Professor & Head
e. Department	:	Mathematics
f. Area of Specialization	:	Pure Mathematics & Functional Analysis.
g. Year of first appointment	:	1994
(i) In the Institution	:	25.01.2007
(ii) In the Present Post	:	01.09.2014(as Head of the Department)
h. Total Teaching Experience	:	31 years

## Academic Qualifications

Exam. Passed	Board/University	Subjects Year
B.Sc.,	Bharathidasan	Mathematics
M.Sc., M.C.A.,	Bharathidasan Bharathidasan	Mathematics Computer Applications
M.Phil., Ph.D.,	Bharathidasan Bharathidasan	Mathematics Mathematics
PG.D.C.S.A.,	Bharathidasan	Computer Applications

## Research contributions

Number of students (M.Phil./ Ph.D.)		
Research	Registered	Doing/Completed
M.Phil.	24	23 Completed, 1 Doing
Ph.D.	8	7 Completed, 1 Doing

## Extension work/community services

IQAC and AISHE Co-ordinator of UDC College
Nodal Officer of UDC College for All India Survey of Higher Education under HRD Ministry of India, nominated by the Bharathidasan University.
Member of Board of Studies of PG Mathematics, Bharathidasan University
Member of Board of Studies of UG Mathematics, Bharathidasan University
Professor-in-charge for Un-aided Courses
Senate Member of UDC Bharathidasan University.

## List of Papers Published:

S. No	Title of the Paper	Journal No.	National/International	Year / Volume No.	Page
1.	Fixed Point Theorems of Contractive Mappings in Conic Metric Spaces	2	Far East Journal of Mathematical Sciences	2009 & 34	207-218
2.	Fixed Point Theorems of Multi-Valued Mappings in Cone Metric Spaces	31	International Journal of Contemporary Mathematical Sciences	2010 &5	1533-1540
3.	Generalization of a Fixed Point Theorem in Cone Metric Spaces	11	International Journal of Mathematical Analysis	2011 &5	507-512
4.	Some Common Fixed Point Theorems in Cone Metric Spaces	IV	International Journal of Mathematical Sciences and Engineering Applications	2011 &5	253-263
5.	Common Fixed Point Of Mean Non-expansive mappings in Banach Spaces	1	International Journal of Mathematics and Engineering with Computers	2011 &2	51-56
6.	Fixed Point Theorem of Contractive Mappings in Cone Metric Spaces with w-Distance	1	International Journal of Mathematics and Engineering with Computers	2011 &2	45-49
7.	Extension of Some Fixed Point Theorems in Cone Metric Spaces	1	Far East Journal of Mathematical Sciences	2011 &54	25-35
8.	Common Fixed Point and Best Approximations	3	International Journal of Mathematics Research	2012 &4	251-257
9.	Cone Convex Metric Spaces and Fixed Point Theorems	22	International Journal of Mathematical Analysis	2012 &6	1087-1093
10.	Fixed Point Theorems in Partial Cone Metric Spaces	2	Global Journal of Mathematical Sciences: Theory and Practical	2012 &4	97-105
11.	$\alpha$ Generalised-continuous functions	(8)II	International Journal of Math. Sci. & Engg. Appls. (IJMSEA)	2014 &8	305-311
12.	$\alpha$ Generalised closed sets	5(2)	International Journal of Mathematical Archive	2014 (2)	187-191
13.	$\alpha$ -Interior and $\alpha$ -g-Closure in Topological Spaces	5(3)	International Journal of Mathematical Archive	2014(3)	222-226

14.	$\alpha^g$ Compact and $\alpha^g$ -Closed Spaces	(2)III	International Journal of Pure & Engg. Mathematics	2014 (III)	81-88
15.	$\alpha^g$ -Exterior and $\alpha^g$ -Frontier in Topological Spaces	5(4)	International Journal of Mathematical Archive	2014(4)	102-108
16.	$O\alpha^g$ - Connected Spaces	3(2)	Bulletin Of Society For Mathematical Services & Standards	2014(2)	19-28
17.	Fixed Point Theorems of Cyclic Map in Metric Space	IV	International Journal of Math. Sci. & Engg. Appls.	2014	257 – 269
18.	$B_2$ -Metric Space and Fixed Point Theorems	2(II)	International Journal of Pure & Engg. Mathematics	2014(II)	75 – 84
19.	Fixed Point Theorems in Fuzzy 2-Metric Space with Implicit Map	4	Int.J.Engg.Res.&Tech.	2014	15-19
20	Different $\alpha^g$ -Continuous Functions	(8) II	International Journal of Math. Sci. & Engg. Appls.	2014(8)	331-337
21	$O\alpha^g$ -Compact Spaces	3(4)	Bulletin Of Mathematical Sciences And Applications	2014(4)	38-42
22	$\alpha^g$ -Filters and $\alpha^g$ -Filter bases	6(2)	Global Journal of Mathematical Sciences: Theory and Practical	2014(2)	111-117
23	$\alpha^g$ -Maximal Filters and $\alpha^g$ -Convergence of $\alpha^g$ -Filters	10(9)	International Mathematical Forum	2015(9)	443-455
24	Almost Contra $\alpha^g$ Continuous Functions	8(2)	Intern .J. Fuzzy Mathematical Archive.	2015(2)	69-80
25	Totally $\alpha^g$ Continuous Functions	8(2)	Intern. J. Fuzzy Mathematical Archive.	2015(2)	125-132
26	Somewhat $\alpha^g$ -Continuous Function and Somewhat $\alpha^g$ -open function	7(1)	Journal of Advanced Studies in Topology	2016(1)	25-30
27	Fixed point theorems in normal cone metric space	10(III)	International Journal of Mathematics Science & Engineering Applications	2016(III)	213 – 224
28	Some fixed point theorems in cone Banach spaces Using $\phi_p$ Operator	4(2-B)	International Journal of Mathematics and its Applications	2016 (2-B)	105 – 112
29	Fixed Point of Cyclic Contraction Functions in Banach Spaces	7	International Journal of Innovative Research in Science, Eng. and Tech.	2016(5)	13316-13319
30	Some fixed point theorems in parametric b-metric Space	III	International J.of Math. Sci. & Engg. Appls. (IJMSEA)	2016(10)	99-106

31	Fixed point theorems in parametric metric Space	3	International Journal of Mathematics Research	2016(8)	213-220s
32	Study on two Non-Archimedean Menger probability Metric spaces	1	International Journal of Statistics and Applied	2016(3)	01-04
33	On two complete metric space	7	International Journal of Innovative Research in Science, Engineering and Technology	2016(5)	1111-1115
34	Common fixed point of four mapping with contractive modulus on cone Banach Space	5(2)	Malaya Journal of Matematik (MJM)	2017 (2)	310 -320.
35	Common fixed point of four mapping with contractive modulus on cone Banach Space via cone C-class uncton	13(9)	Global Journal of Pure& Applied Mathematics	2017(9).	5593 -5610
36	Common fixed point of contractive modulus on 2-Cone Banach space	5(3)	Malaya Journal of Matematik	2017(3)	608 – 618
37	Fixed point of $(\varphi, \phi)$ -weak contraction in regular cone metric spaces	8(8)	International Journal of Mathematical Archive	2017(8)	1 – 8
38	Cone C-class function with common fixed point theorems For cone b-metric Space	8	Journal of Mathematics and Informatics	2017	83-94
39	Cone S-metric space and fixed point theorems of contractive mappings	14(2):	Annals of pure and applied mathematics	2017(2)	237 – 243
40	Some fixed point theorems for contraction of rational expression on cone metric space	47(5)	International Journal of Mathematic Trends and Technology	2017(5)	1 – 5
41	Cone C-class function on new contractive conditions of integral type on complete cone S-metric spaces	5(5-c)	International Journal of Mathematics and its Applications	2017(5-c)	261 – 275
42	Cone C-class function on some common fixed point theorems for contractive type conditions in random cone metric space	5(4-B)	Journal of mathematical analysis and applications	2017 (4-B)	235-245
43	Fixed Point Theorems of Fuzzy Function in Complete Metric Spaces	7	International Journal of Innovative Research in Science, Engineering and Tech.	2017(6)	13357-13561

44	Fuzzy Mapping and their Fixed Point Theorems in Complete Metric Spaces	8	International Journal of Scientific Research in Science, Engineering and Tech.	2017(3)	241-249
45	Fixed point Theorems in Fuzzy Metric Spaces	1	International Journal of Pure & Applied Mathematical Sciences	2017(10)	17-23
46	Study on Fixed Point Theorems in Complete Cone Metric Spaces	7	International Journal of Innovative Research in Science, Engineering And Technology	2017(6)	13526-13531
47	Common Fixed Point of Contractive Modulus on Complete Metric Space	4-D	International Journal of Mathematics and its Applications	2017(5)	513-520
48	Common random fixed point theorems of Akram-contraction mappings in cone random metric spaces.	7	Journal of Fixed Point Theory	2018	1-7
49	Fixed Point of Cyclic Contraction Mappings in Banach Spaces Via C-Class Function	6	International Journal of Mathematics and its Applications	2018(1-E)	1085-1092
50	Common Fixed Point Theorems in Non-Archimedean Menger PM Space	6	International Journal of Mathematics Trends and Technology (IJMTT)	2018(57)	377-381
51	C-Class function on new contractive conditions of integral type on complete s-metric space	2	Journal of global research in mathematical Archives	2018(5)	46-63
52	Generalized pre-closed sets with respect to an ideal	1	International Journal of Mathematics Trends and Technology(IJMTT)	2018(57)	63-6
53	On Fuzzy generalized b-closed sets	11	Journal of Computer and Mathematical Sciences	2017(8)	621-629
54	Fixed point theorems of multi valued mapping in cone metric spaces via cone c-class function	4	International Journal of scientific research in Mathematical and Statistical Sciences	2018(5)	272-277
55	Some Fixed point theorems of Generalized Contractive Mappings in cone metric space.	4	International Journal of scientific research in Mathematical and Statistical Sciences	5(2018)	289-293
56	Fixed point theorems in partial metric space.	4	International Journal of scientific research in Mathematical and Statistical Sciences	5(2018)	384-388s
57	Fixed Point Theorems In Complete Fuzzy 2 Metric Spaces	9(2)	Journal of Information And Computational Science	2019	1315-1324

58	Fixed Point Theorems For Occasionally Weakly Compatible Maps In IntuitionisticFuzzy2Metric Spaces	9(9)	Journal Of Information And Computational Science	2019	296-304
59	Some Fixed Point Theorems In $\phi-\psi$ Weak Contraction On Fuzzy 2 Metric Space	5(3)	Int.J.Sci.Res. In Mathematical And Statistical Sciences	2018	146-152
60	Common Fixed Point Theorems For Weakly Compartible Mappings And Coincidence Points In Complete Partial Metric Spaces	9(10)	Journal Of Information And Computational Science	2019	470-480
61	Fixed Point Theorems Of Integral Type Contraction In Normal Cone Metric Space		International Journal Of Research In Advent Technology special Issue	2019	82-86
62	Common fixed point theorems In non Archimedean menger PM spaces	57(6)	International Journal of Mathematics Trends and Technology (IJMTT)	2018	377-381
63	Fixed Point Theorems In C-Fuzzy Metric Set In Fuzzy Metric Spaces	5(6)	International Journal Of Scientific Research In Mathematical And Statistical Sciences	2018	01-05
64	Fixed Point Theorem Of Generalized Contraction Function In Symmetric Spaces	6(3)	International Journal Of Scientific Research In Mathematical And Statistical Sciences	2019	105-110
65	Generalized Fixed Point Theorems In Fuzzy Two Metric Spaces	10(7)	Journal Of Information and Computational Science	2020	583-593
66	A common fixed point theorem in linear normed space	19(11)	Advances and applications in mathematical sciences	2020	1133-1142
67	Existence Of Fixed Point Theorems Of Contractive Mappings In Complete Generalized Metric Spaces	9(1)	Malaya Journal Of Matematik	2021	79-82
68	Some New Rational Expressions In Complete Metric Spaces	54-2(XI)	Journal Of Maharaja Sayajirao University Of Baroda	2021	
69	Some results in b-metric spaces	9(1)	Malaya Journal Of Matematik	2021	539-541
70	Fixed point theorems of integral type contraction in b-metric spaces	9(1)	Malaya Journal Of Matematik	2021	547-550
71	Fixed-point of $(\alpha,\beta,Z)$ – contraction mapping under Simulation functions in Banach space	9(1)	Malaya Journal Of Matematik	2021	745-750

## Research Contributions Ph.D Guiding/Completed

Sl.No	Name	Area/Topic	Doing/ Completed
1	D. Dhamodharan	Study on Fixed Point Theorems in Cone Metric Spaces	Completed
2	V. Senthil Kumaran	On Regular Generalized $\beta$ Closed Sets in Topological Spaces	Completed
3	T.Mani	Study on Fixed Point Theorems	Completed
4	P.Parakath Nisha Bagam	Study on Fixed Point Theorems in Fuzzy Metric Spaces	Completed
5	M. Sathik Jaseen	Study on Best Proximate Point Theory	Doing
6	K.Dinesh	Fixed Point Theory	Completed
7	R.Livingston	Study on Fixed Point Theorems and their Applications in Fuzzy Environment	Completed
8	Nagarl Pandit Santammappa	Study on Fixed Point Theorems in Fuzzy Environment	Completed

### **No. of Papers Presented in International / National/ Local etc.**

S.No	Title	Conference Details	Date	Place
1	Some results in $b_2$ metric space	2 <sup>nd</sup> National Level Conference on Mathematics: Pure, Applied and computational (NCPAC-22)	19.05.2022	Kongunadu College of Engineering & Technology (Autonomous), Trichy, Tamilnadu
2	Fixed point theorems using cyclic contraction on G-Metric Space	2 <sup>nd</sup> National Level Conference on Mathematics: Pure, Applied and computational (NCPAC-22)	19.05.2022	Kongunadu College of Engineering & Technology (Autonomous), Trichy, Tamilnadu
3	A common unique Random fixed-Point theorems in S-Metric space via integral type contraction	International conference on Research trends in contemporary Mathematics (ICRTCM2023), Patrician College of Arts and Science, Chennai	03.02.2023 and 04.02.2023	Patrician College of Arts and Science, Chennai

## Seminars, Conferences, Symposia Workshops etc. attended

S. No.	Name of the Seminar/Conference /Symposia Workshop etc.	Name of the sponsoring agency	Place and Date
1.	Quality Enhancement in Educational Communication	Bharathidasan University	Tiruchirappalli, 29 <sup>th</sup> & 30 <sup>th</sup> March 2008
2.	Fixed Points of Generalized Contraction Mapping	Manonmaniam Sundaranar University	Tirunelveli, 3 <sup>rd</sup> , 4 <sup>th</sup> & 5 <sup>th</sup> March 2011
3.	Innovative Curriculum Designing And Evaluation	Bharathidasan University	Tiruchirappalli, 13 <sup>th</sup> /14 <sup>th</sup> August 2015

## Conference / Seminar / Workshop / Training / Add on course organized

S.No	Title	Date	Organization and place	Role
1	Webinar on “Multi Objective Optimization”	22.12.2021	Srinivasa Ramanujan Hall, Dept.of Mathematics, U.D.College	Convenor
2	“Interdepartmental Competition on Math-Fest” for the Birthday celebration of Indian Mathematician Srinivasa Ramanujan	22.12.2021	Srinivasa Ramanujan Hall, Dept.of Mathematics, U.D.College	Convenor
3	Webinar on “ A part of Continuum mechanics in our daily life”	23.12.2021	Srinivasa Ramanujan Hall, Dept.of Mathematics, U.D.College	Convenor
4	Webinar on “ A gist view of statistical approaches”	24.12.2021	Srinivasa Ramanujan Hall, Dept.of Mathematics, U.D.College	Convenor
5	Application of Mathematics: Modelling, Engineering and Social Sciences	27.04.2022	Srinivasa Ramanujan Hall, Dept.of Mathematics, U.D.College	Convenor
6	Need for Emotional intelligence Elite life	28.04.2022	Srinivasa Ramanujan Hall, Dept.of Mathematics, U.D.College	Convenor
7	Graphic Designing – Add on Course	30.04.2022 to 18.05.2022	Srinivasa Ramanujan Hall, Dept.of Mathematics, U.D.College	Convenor
8	Infinity Minds 2K22 (Intercollegiate Competition)	25.05.2022	Srinivasa Ramanujan Hall, Dept.of Mathematics, U.D.College	Convenor
9	Career opportunities for Mathematics students - Mr.P.GIRISH MENON	04.08.2023	PG & Research Department of Mathematics, UDC Trichy-19	Convenor
10	Quantitative Aptitude & Reasoning – Value added Course	29.8.2023 to 29.9.2023	PG & Research Department of Mathematics, UDC Trichy-19	Convenor

11	One day Workshop on Data Analysis and Visualisation	13.3.2024	PG & Research Department of Mathematics, UDC Trichy-19	Convenor
12	Number Patterns and Diophantine Equations	22.08.2024	PG & Research Dept. of Mathematics, UDC.	Convenor
13	Problem Solving Techniques in Real Analysis	29.08.2024	PG & Research Dept. of Mathematics, UDC.	Convenor
14	One day seminar on convergence and divergences of sequences	12.09.2024	PG & Research Dept. of Mathematics, UDC.	Convenor
15	Rudimentary Concepts in Mathematical Analysis	18.09.2024	PG & Research Dept. of Mathematics, UDC.	Convenor
16	Inter Collegiate Competition- Infinity Minds 2K25	06.02.2025	PG & Research Dept. of Mathematics, UDC.	Convenor

### Seminars, Conferences, Symposia Workshops

S. No.	Name of the Seminar/Conference /Symposia Workshop etc.	Name of the sponsoring agency	Place and Date
1.	Recent Trends in Analysis & Graph Theory	The M.D.T.Hindu College	Tirunelveli, 11.08.2009 & 12.08.2009
2.	Fixed points of Generalized contraction Mapping	Manomaniam Sundaranar University	Tirunelveli, 03.03.2011 - 05.03.2011
3.	A Seminar on Higher Studies in Analysis	Anna Science Centre - Planetarium	Tiruchirappalli, 15.03.2012
4.	Network Programming and Mining Classifier for Intrusion Detection using Probability classification	Periyar University	Salem, 21.03.2012- 23.03.2012
5.	Existence of Fixed point of q- Contraction map on convex cone metric spaces	M.D.T.Hindu College	Tirunelveli, 21.03.2012& 22.03.2012
6.	Fixed Point theorems of fuzzy functions in a metric spaces	Bharathidasan University,	Tiruchirappalli, 19.12.2012 & 20.12.2012
7.	Common Fixed Point Theorems in Fuzzy Metric Spaces	Periyar Maniammai University	Thanjavur, 03.12.2013
8.	Existence of Fixed Points of Fuzzy Functions in Complete Metric Spaces	PSG College of Technology	Coimbatore, 03.01.2014 – 05.01.2014
9.	“Preparatory workshop for India Rankings 2024	The Internal Quality Assurance cell (IQAC) & UGC – Human Resource Development Centre, Bharathidasan University	Bharathidasan University 06.10.2023

**Participation and contribution in higher education institutions (Resource person, External Examiner ships, question paper setters)**

S.No	Status	Name of organization	Area Specialization
1.	Resource person	One Day National Webinar on Discrete Mathematics, Meenakshi Ramasamy Arts and Science College, Ariyalur	Discrete Mathematics
2.	External Examiner ship	M.Phil Viva voce External Examiner in Various Autonomous and Non-Autonomous College	Mathematics
3.	Question paper setter	Various Autonomous and Non-Autonomous College	Mathematics
4.	Evaluation and screening process of the career Advancement scheme	Holy cross college (Autonomous) 12.01.2024	
5.	Question paper setter	Holy cross college (Autonomous), Bharathidasan university	Functional Analysis
6.	External Examiner for M.Sc/M.Phil viva-voce	J.J.College of Arts and science(Autonomus), Trichy	(M.Phil)Mathematics
		Shrimati Indira Ganthi College, Trichy.	(M.Sc)Mathematics
7.	External Examiner for Practical Examination	Jamal Mohamed College(Autonomous), Trichy	Mini project using e- Mathematical Tool(Group)
8.	External Examinership	National College	External examiner for Ph.D Synopsis viva-voce Exam
9.		National College	External examiner for Ph.D Synopsis viva-voce Exam
10.		Arasu College of Arts and Science for Women	External examiner for PG Viva –Voce Exam
11.		National College	External examiner for PG Viva –Voce Exam
12.		National College	External Examiner for Ph.D Synopsis viva-voce Exam
13.		St.Joseph’s College (Autonomous)	External Expert for the Department of Data Sciences

14.	Question paper setter	Holy Cross College (Autonomous), Trichy	PG paper - Mathematical Foundation of computer science
15.	Examiner Ph.D Synopsis Viva-Voce Examiner	National College, Trichy	Mathematics
16.	External Examiner ship (M.Phil Viva voce)	Arignar Anna Government Arts College, Musiri	Mathematics
17.	Question paper setter	Thanthai Periyar Governement Arts and Science College, Trichy	Mathematics
18.	Central Valuation	Bharathidasan University Central Valuation	Mathematics
19.	External Examiner	Bishop Heber College, Trichy	Mathematics
20.	<b>Ph.D. viva-voce External Examiners</b> Name of the Candidate: 1. Ms.Veronisha.E and 2. Ms.Sujipriya.A		
21.	<b>Ph.D. viva-voce External Examiners</b> C. Priyadharshini Infanta Nirmala College for Women. Coimbatore		

### Board of Studies chairman / membership

S.No	Institution	Chairman / member	Year (Duration)
1.	Bharathidasan University, Trichy	Member – UG Maths Board	3 years (from 01.10.2021)
2.	UG Board of Studies in Mathematics, Centre for Distance and online Education, Bharathidasan university.	Member in UG Mathematics	20.02.2024
3.	Dr.kalaignar Government Arts College, Kulithalai	DC member	31.07.2024
4.	Centre of Distance and online Education, Bharathidasan University	UG Board of Mathematics	11.12.2024
5.	Bharathidasan University, Trichy	UG Board of Studies (CDE)	2025
6.	National College (Autonomous), Trichy	DC member to conduct Ph.D synopsis presentation	28.01.2025

### Other contributions of Staff Members

Sl. No.	Details of the Contribution	Name of the University / Institution
1	DC Member for Ph.D Scholars	Holy cross college (Autonomous), Bharathidasan university
		Jamal Mohamed College, Trichy
2	Chairperson-Member of interview panel	National college (Autonomous), Bharathidasan university.

### BookPublished:

S.No	Title	Publisher	ISBNNo.
1.	DiscreteMathematics	LakshmiPublications,New Delhi	81-7008-644-2
2.	DiscreteMathematics	UniversitySciencePress,New Delhi	978-81-318-0438-4
3.	Fundamentalsof Computing	SSSPublications,TamilNadu	--

<b>Google Scholar:</b>	<b>Citation-2208,h-index-21,i10-index-62</b>
<b>ResearchGate:</b>	<b>Score9.30</b>