

**Name: Dr G.AROCKIA PRABAKAR**

**Qualification: M.sc M. Phil Ph.D**

**Designation: Assistant Professor**

**Department: Mathematics**

**Date of Joining: 09.07.2019**

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**Educational Qualification:**

<b>Degree</b>	<b>Subject</b>	<b>College / University &amp; Place</b>	<b>Year Completed</b>
Ph.D	Mathematics	The Gandhigram Rural Institute- Deemed University, Dindigul	2015
M.Phil	Mathematics	The Gandhigram Rural Institute- Deemed University, Dindigul	2009
M.Sc	Mathematics	Loyola College, Chennai	2008
B.Sc	Mathematics	St Joseph's College, Trichy	2006

**Specialisation in Teaching: Mathematics**

**Specialisation in Research: Fractals & Fixed Point Theory**

**Other Work Experience:**

<b>Designation</b>	<b>Institution / Company</b>	<b>Year - From (month/year) To (month/year)</b>
<b>Assistant Professor</b>	<b>SSM Institute of Engineering &amp; Technology</b>	<b>02.01.2015 to 05.07.2019</b>

**Administrative /Academic Position/s (held / currently holding): Nil**

**Membership in Professional Bodies: Nil**

## **Publications: 8**

### **Articles Published in International Journals:**

1. R. Uthayakumar, G. Arockia Prabakar, S. Abdul Azis, “**Fractal Analysis of Soil Pore Variability with Two Dimensional Binary Images**” *Fractals*, 19\_(4) 401-406. (2011). (World Scientific)
2. R. Uthayakumar, G. Arockia Prabakar, S. Abdul Azis, “**Multifractal Scaling of Crack Images from Pyrolytic Acid Dried Sludge**” *Journal of computational Science*, 3 67– 73 (2012). (Elsevier)
3. R. Uthayakumar, G. Arockia Prabakar, “**Common Fixed Point Theorem in Cone Metric Space for Rational Contractions**”, *International Journal of Analysis and Applications* 3(2) 112-118 (2013).
4. R. Uthayakumar, G. Arockia Prabakar, “**An Iterated Function System for Reich Contraction in Complete b Metric Space**”, *International Journal of Mathematical, Computational Science and Engineering*, 7 (11) 813-816 (2013).
5. G.Arockia Prabakar, R.Uthayakumar, “**Generalized Wellposedness and Multivalued Contraction**”, *Gazi University Journal of Science*, 27 (2) 755-759 (2014).
6. G. Arockia Prabakar, R.Uthayakumar, “**Set Valued Fixed Point Theorems Endowed with a Graph**”, *Journal of Advanced Research in Pure Mathematics*, 6 (3) 62-68 (2014).
7. G. Arockia Prabakar, R.Uthayakumar, S. Abdul Azis, “**Multifractal Analysis of Slacken surface in Hydrocarbon Molecules through Fuel Additive**”, *Egyptian Journal of Petroleum*, (Elsevier) 23 (3) 279-284 2014.
8. G. Arockia Prabakar, R.Uthayakumar, **Coincident and Common Fixed point theorems in b-Metric Space**, *Journal of Advanced Research in Pure Mathematics*, 7 (1) 41-51 2015.

### **Articles published in National Journals: Nil**

### **Conference / Seminar Presentations:**

1. G.Arockia Prabakar, R.Uthayakumar presented a paper entitled “**Natural Way Effluent Treatment Using Fractal Dimension**” *Proceedings of the 1st IEEE International Conference on Communication Control and Computing Technologies - 2010*, IEEE Xplore Digital Library 623–627. (Ramanathapuram & Kanyakumari 07.10.2010 - 09.10.2010).

2. R. Uthayakumar, G.Arockia Prabakar presented a paper entitled **“Estimation of Fracture and Texture mages Using Lacunarity and Multifractal Technique”**, Proceedings of the International Conference on Applications of Mathematics and Statistics - 2012, 716–721 (Bishop Heber College, Trichy from 05.01.2012 to 07.01.2012).
3. R. Uthayakumar, **G. Arockia Prabakar**, **“Fractal Interpolation for Constrained Delaunay Triangulation and Voronoi Diagrams”**, Proceedings of the International Conference on Mathematical Modeling and Applied Soft Computing, 612-621, (Coimbatore Institute of Technology, Coimbatore 11.7.2012 to 13.7.2012).
4. R. Uthayakumar, **G. Arockia Prabakar**, **“Creation of Fractal objects by using iterated function system”**, Proceedings of the Third International Conference on Computing, Communication and Networking Technologies, IEEE Xplore Digital Library. 1-7, 2012 (SNS College of Engineering, Coimbatore from 26.7.2012 to 28.7.2012).
5. **G.Arockia Prabakar**, A.Gowrisankar and R.Uthayakumar **“Self similar Similar Group of Bianchni Iterated Function System”** International Conference on Applications of Fractals and Wavelets, (Amirtha University, Coimbatore from 12.1.15 to 14.1.2015).
6. R.Uthayakumar, **G.Arockia Prabakar** presented a paper entitled **“Lacunarity indices as a measure of texture images”** National Conference on Advances in Mathematical Analysis and Applications held at K.S.R College of Arts and Science from 12.08.2011 to 13.08.2011.
7. R.Uthayakumar, **G.Arockia Prabakar** presented a paper entitled **“Generation of Fractals by some fixed point theorems”** in the Proceeding of the National Conference on Recent Trends in Analysis & Applied Mathematics, 200-206 (National Institute of Technology, Trichy from 9.5.5013 to 10.5.2013).
8. R.Uthayakumar, **G.Arockia Prabakar**, presented a paper entitled **“Fractals for Reich Iterated Function System”** in the 2<sup>nd</sup> National Conference on Frontiers in Applied Sciences and Computer Technology, (National Institute of Technology, Trichy from 23.5.5013 to 24.5.2013).
9. **G.Arockia Prabakar**, presented a paper entitled **“Similar group of Chatterjea Iterated Function System”** International Conference on Present Scenario of Mathematical Sciences Karnatak University’s Karnatak Arts College, Karnataka from 12.09.2020 to 13.09.2020.

10. **G.Arockia Prabakar, Multivalued Fractals for Weak Contraction in b-Metric Space**  
22nd FAI International Conference on Mathematical, Computational Intelligence and Engineering Approaches to Healthcare Business and Tourism Analytics 2020, The American College, Madurai from 20.12.2020 to 22.12.2020.
11. Presented a paper entitled **“Fractals from Iterated Function System in Dislocated Metric space”** in International Conference on Mathematical Challenges and Novel Applications -2024, Ayya Nadar Janaki ammal College & SFR College for Women from 21.03.2024 to 22.03.2024.

#### **WORKSHOP /SEMINAR/ SYMPOSIUM ATTENDED**

1. Attended a **“National Workshop on Mathematical Modelling and Computational Mathematics – 2009”**, Department of Mathematics, The Gandhigram Rural Institute – Deemed University, Gandhigram, Dindigul from 23.02.2009 to 28.02.2009.
2. Attended a **“Mathematics Teachers Training Programme –MTTP”**, Department of Mathematics, Thiagarajar College of Engineering, Madurai from 03.01.2011 to 08.01.2011.
3. Attended a National seminar on **“Research Issues and Challenges in Medical imaging”**, Department of Biomedical Engineering, PSNA College of Engineering, Dindigul from 21.7.2011 to 22.7.2011.
4. Attended a National seminar on **"Topology, Fractals their Fuzzy Generalization and Applications"**, Department of Mathematics, St. Dominic’s College, Kanjirapally, Kerala from 13.10.2011 to 14.10.2011.
5. Attended an **"Intuitionistic Fuzzy In Image Processing"**, Department of Mathematics, Kongu Engineering College, Erode from 2.3.2012 to 3.2.2012.
6. Participated an **“International Conference on Mathematical Modelling & Scientific Computation”** organized by Department of Mathematics, The Gandhigram Rural Institute – Deemed University, Gandhigram, Dindigul from 16.3.2012 to 18.3.2012.
7. Attended a **“National Workshop on Mathematical Analysis and its Applications”** Department of Mathematics, Periyar University, Salem from 7.5.2012 to 12.5.2012.
8. Attended a Workshop on **“Intellectual Property & Innovation Management in Knowledge Era”** The Gandhigram Rural Institute – Deemed University, Gandhigram, Dindigul on 17.10.2012.

9. Participated in the “**Advanced School on Analysis and International Workshop on Mathematical Modelling and Dynamical Systems**” organized by Department of Mathematics, The Gandhigram Rural Institute – Deemed University, Gandhigram, Dindigul from 27.02.2013 to 03.03.2013.
10. Participated an “**International Conference on Fractals & Wavelets**” organized by Department of Mathematics, Rajagiri School Engineering Technology, Kerala from 9.11.2013 to 12.11.2013.
11. Attended two day symposium “**Mathematical Modelling and Soft Computing**” organized by Department of Mathematics, The Gandhigram Rural Institute – Deemed University, Gandhigram, Dindigul from 28.03.2014 to 29.04.2014.
12. Attended a Workshop on “**Machine Learning and its Applications**” organized by Department of Mathematics, Indian Institute of Space & Technology, Tirvanthapuram, from 30.6.2014 to 02.07.2014.
13. Participated Faculty Development Training Programme on “**Mathematics I**” organized by Department of Mathematics, SSM Institute of Engineering & Technology from 16.06. 2015 to 22.06.2015.
14. Participated a “**One day Workshop on LaTeX**” organized by Department of Mathematics, SSM Institute of Engineering & Technology on 30.11.2017.
15. Attended a “**Goal Setting Workshop for Faculty Empowerment**” organized by the Internal Quality Assurance Cell (IQAC) of SSM Institute of Engineering & Technology from 03.05.2018 to 04.05.2018.
16. Participated Faculty Development Training Programme on “**Eng. Mathematics I**” organized by Department of Mathematics, University College of Engineering & Technology from 17.06. 2019 to 22.06.2019.
17. Attended Online Workshop Online Workshop on **Mathematical Sciences for Csir-Ugc Net Aspirants** organized by Department of Mathematics, St.Mary’s College (Autonomous), Thoothukudi from 19th to 23rd May 2020.
18. Attended webinar on **Mathematical Documentation and Computation Using Online Tools**, St.Mary’s College (Autonomous), Thoothukudi from 28th to 29rd May 2020.
19. Attended Online Workshop on **Data Analysis using SPSS**, held on May 28 – 30, 2020, The American College, Madurai.

20. Attended on **Workshop on Fundamentals of MATLAB**, from 10.12.2020 to 11.12.2020 organized by Sri Shakthi Institute of Engineering & Technology, Coimbatore.
21. Attended on Webinar on **NDLI User Awareness International Virtual Workshop on Innovative Resources and IPR in Research** organized by Daniel Poor Memorial Library, The American College, Madurai held on 25.06.2021.
22. Berchmans Webinar Series in Mathematics **An introduction to Fractals and Fractal dimensions** held on 22.01.2022, organized by Department of Mathematics St Berchmans College, Changanassery.
23. Participated CMI-NASI online workshop on **“Linear Algebra & Elementary Number Theory”** organized by Department of Mathematics, Mepco Schlenk Engineering College, Sivakasi from 27.01.2022 to 26.02.2022.
24. Attended **“Wokshop on Data Analytics and Machine Learning”** organized by Division of Mathematics, School of Advanced Sciences, Vellore Institute of Technology, Chennai from 26.06.2023 to 27.06. 2023.
25. Attended **“FDP programme on Mathematics in Real, Applied and Computational”** Domains organized by Department of Mathematics, School of Science & Humanities Sathyabama Institute of Science and Technology, Chennai, from 3 to 8 July, 2023.
26. Attended **“International Webinar on Emerging Trends in Mathematics”** organized by Department of Mathematics, Jayaraj Annapackiam College for Women, Periyakulam on 13.09.2023.
27. Participated a two day online **“Hands on workshop to Mastering Fuzzy Mathematics with Python Programming”** Indian Mathematics Professor Association and Infinity Research & Development Institute, Coimbatore from 30.12.2023 to 31.12.2023
28. Participated two days FDP on **“Evaluation Strategies & Classroom Management Skills”** organized by the IQAC Michael Job Memorial College of Education for Women, Coimbatore from 05.02.2024 to 06.02.2024.
29. Participated one week FDP Programme on **“Applications of Mathematics in Multi-disciplinary Domains”** jointly conducted by A.C.T Academy and Department of Mathematics, The American College, Madurai from 01.02.2024 to 08.02.2024.

30. Five day online Faculty development Programme on “**Research in Mathematic Present Trends and Future Prospects**” Sacred Heart College, Tirupattur and Patrician College of Arts and Science, Chennai from 18.11.2024 to 22.11.2024.

**Lectures / Talks given:**

1. Delivered an invited talk on staff orientation programme organized by Department of Mathematics, St Antony’s College for Woman, Dindigul held on 14.06.2019.
2. Delivered a lecture on “LATEX” in the Five Days Summer Training on Mathematical Software organized by Department of Mathematics Vivekananda College, Madurai on 14.07.2022.

**Awards / Fellowships:**

1. Received Basic Science Research Fellow (BSR) funded by University Grant Commission (UGC) for the period from 2013 to 2014.
2. Best Library User award academic year 2022-2023.

**Other Activities / Academic Credentials:**

Positions held/Currently holding	Year-From(month/year) To (month/year)
Department Association Activities	UG President (2022-2023) PG President (2023-2024)
ANALGEOCA’23	President (2022-2023)
NAAC –Criteria V (Department)	2022-23, 2023-2024
AAA Report	2021-2022
Autonomy Coordinator –PG	2021-2022