

**Name: Dr G.AROCKIA PRABAKAR**

**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): PG Autonomy Coordinator from June 2021 to till.**

## **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 Pyroligneous 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.

### **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 “**Self Similar group of Chatterjea Iterated Function System**” **International Conference on Present Scenario of Mathematical Science** organized by Department of Mathematics, Karnatak University’s Karnatak Arts College, Dharwad, Karnataka, India held from 12-09-2020 to 13-09-2020.
10. **G.Arockia Prabakar**, presented a paper entitled “**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, organized by The American College, Madurai.

#### **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**”, from May 28 – 30, 2020, The American College, Madurai.
20. Attended Online Workshop on “**Hacks and Tips: CSIR-UGC-NET Examination in Mathematics**”, from 06.07.2020 to 08 .07.2020, The American College, Madurai.
21. Attended Online Workshop on “**Applications of Mathematics in Diverse Fields**”from **29.6.2020 to 04.07.2020** organized by Department of Mathematics **Anand Institute of Higher Technology ,Kazhipattur, Chennai.**
22. Attended Online Workshop on “**Fundamentals of MATLAB**” held on 10.12.2020 to 11.12.2020, organized by Department of Mathematics, Sri Shakthi Institute of Engineering and Technology, Coimbatore.
23. Attended CMI-NASI online workshop on “**Linear Algebra & Elementary Number Theory**” from 27.01.2022 to 26.02.2022, organized by Department of Mathematics, Mepco Schlenk Engineering College, Sivakasi.

**Lectures / Talks given:**

Delivered an invited talk on staff orientation programme organized by Department of Mathematics, St Antony’s College for Woman, Dindigul held at 14.06.2019.

**Awards / Fellowships:**

Received Basic Science Research Fellow (BSR) funded by University Grant Commission (UGC) for the period from 2013 to 2014.