<h1 style="text-align:center">CAUVERY COLLEGE FOR WOMEN
(AUTONOMOUS)
STAFF PROFILE</h1>

PERSONAL INFORMATION

1. **Name**   : **Dr.C.SARANYA**
2. **Date of Birth**   : **12-11-1988**
3. **Address**   :

Residential	Office
28.2, Opposite to Kamatchi Amman temple, Mudhaliyar Street, Woraiyur, Tiruchirappalli-620003. e-Mail: c.saranyavinoth@gmail.com mobile: 8807159838, 8667482587	Associate Professor, PG and Research Department of Mathematics, Cauvery College for Women (Autonomous), Annamalai Nagar, Tiruchirappalli-620018. e-mail: saranyac.maths@cauverycollege.ac.in

ACADEMIC INFORMATION

4. **Designation & Department:**

    Associate Professor, PG and Research Department of Mathematics.

5. **Educational Qualification   :**

Degree	Year	College/University
Ph.D.,	Dec 2021	Cauvery College for Women (Autonomous), Affiliated to Bharathidasan University, Tiruchirappalli.
SET	Apr 2017	Mother Teresa Women's University, Kodaikanal.
M.Phil.,	Nov 2011	Seethalakshmi Ramaswami College (Autonomous), Affiliated to Bharathidasan University, Tiruchirappalli.
M.Sc.,	Apr 2010	Seethalakshmi Ramaswami College, (Autonomous), Affiliated to Bharathidasan University, Tiruchirappalli.
B.Sc.,	Apr 2008	Seethalakshmi Ramaswami College (Autonomous), Affiliated to Bharathidasan University, Tiruchirappalli.

6. **RESEARCHER ID:**

    Google Scholar: https://scholar.google.com/citations?user=xcOrqQQAAAAJ&hl=en

    Orcid: https://orcid.org/0000-0002-0318-287X

    Scopus ID: https://www.scopus.com/authid/detail.uri?authorId=57460519600

    Web of Science ID: AAH-2795-2021

    Publons: https://publons.com/researcher/3315266/saranya-c/

7. Dissertation/Thesis:

S.No	Research Degree M.Phil / Ph.D	Title of Dissertation / Thesis
1.	M.Phil.,	A Notion of δ-Completion, Ascoli's theorem in Almost Quiet Quasi-Uniform space.
2.	Ph.D.,	A Scrupulous Scrutiny On Spectacular Number Prototypes And The Integral Solutions Of Substantial Diophantine Equations.

8. Experience:

Date of Joining	Institution	Year of Experience
05.08.2011	Cauvery College for Women	13 Years 7 months

9. Areas of Specialization : Number Theory

10. Languages known : Tamil, English

11. Subjects Taught:

UG	Statics, Dynamics, Differential Equations & Laplace Transforms, Algebra and Calculus, Real Analysis, Differential Calculus & Trigonometry, Probability & Statistics, Operations Research, Business Tools for Decision Making, Numerical Analysis & Statistics, Sequences & Series, Calculus & Fourier Series, Algebra, Analytical Geometry (3D) & Trigonometry, Algebra & Theory of Numbers, Mathematical Statistics-II, Number Theory, Discrete Mathematics, Vector Calculus & Fourier Series, Mathematics for Competitive Examinations, MATLAB Programming, Essential Mathematics, Statistics with Excel, Business Statistics, Numerical Methods, Cyber Security.
PG	Mathematical Modelling, Differential Geometry, Discrete Mathematics, Classical Dynamics, Advanced Numerical Analysis, Optimization Techniques, Probability & Statistics, Ordinary Differential Equations, Linear Algebra & Functional Analysis.

12. Details of Paper Publications:

S.No	Journal Name & Volume	Year of Publication	ISSN Number	Name of the Paper	Impact Factor
1.	Jamal Academic Research Journal – An Interdisciplinary, Special issue	Feb 2016	0973-0303	Observations on the Ternary Quadratic Equation $5x^2+7y^2=972z^2$	-
2.	American International Journal of Research in Science, Technology, Engineering and Mathematics, Issue-13	Dec 2015-Feb 2016	2328-3491	Special pairs of Pythagorean triangles and Jarasandha numbers	5.01

3.	International Journal of Innovative Research in Science, Engineering and Technology, Vol-5, Issue-2	Feb 2016	2347-6710	Observations on the Ternary Quadratic Diophantine Equation $6(x^2+y^2)-11xy+3x+3y+9=72z^2$	5.442
4.	International Journal of Multidisciplinary Research and Development, Volume 3, Issue 3	March 2016	2349-4182	Connection between Special Pythagorean triangles and Jarasandha numbers	5.72
5.	Bulletin of Mathematics and Statistics Research, Volume 4, Issue 2	Apr-Jun 2016	2348-0580	Special Rectangles and Jarasandha numbers	4.495
6.	Asian Journal of Science and Technology, Volume 7, Issue 5	May 2016	0976-3376	Special pairs of Rectangles and Jarasandha numbers	5.544
7.	International Journal of Engineering, Science, and Computing, Vol-6, Issue-5	May 2016	2321-3361	Integral solutions of the non-homogeneous heptic equation with five unknowns $5(x^3-y^3)-7(x^2+y^2)+z^3-w^3+3wz-xy+1)=972p^7$	5.611
8.	International Research Journal of Engineering and Technology, Volume 3, Issue7	July 2016	2395-0056	Pythagorean triangle with Area.Perimeter as a Jarasandha number of orders 2 & 4	4.45
9.	International Research Journal of Engineering and Technology, Volume 4, Issue3	March 2017	2395-0056	Integral Solutions of the Ternary Cubic Equation $3(x^2+y^2)-4xy+2(x+y+1)=972z^3$	5.181
10.	International Journal of Research in Engineering and Applied Sciences, Volume 7, Issue XI	March 2017	2249-3905	Connection between Frustum of the Cone with Jarasandha Numbers and Some Special Numbers	7.196
11.	International Journal for Research in Applied Science & Engineering Technology, Volume 5, Issue VIII	Aug 2017	2321-9653	Integral Solutions of the Homogeneous Biquadratic Diophantine Equation $3(x^4-y^4)-2xy(x^2-y^2)=972(z+w)p^3$	6.887
12.	International Journal for Scientific Research & Development, Volume 5, Issue 7	Aug 2017	2321-0613	Integral Solutions of the Homogeneous Quintic Diophantine Equation $x^5-y^5-x^2y^2(x-y)=972(x-y)(z+w)^2p^2$	4.396
13.	International Journal for Research in Applied Science & Engineering Technology, Volume 5, Issue XI	Nov 2017	2321-9653	Evaluating Pyramidal Numbers and Pentatope Number Using Initial Value Theorem in Z-Transform	6.887
14.	Journal of Mathematics and Informatics, Vol 11, Special Issue	Dec 2017	2349-0632	Special Dio 3-tuples for Pentatope Number	1.627

15.	International Journal for Research in Applied Science & Engineering Technology, Volume 6, Issue III	March 2018	2321-9653	Construction of The Diophantine Triple involving Pentatope Number	6.887
16.	Aryabhatta Journal of Mathematics & Informatics, Vol 10, No. 2	July-Dec 2018	0975-7139	Tracing of Polygonal Number from Pyramidal Number and Pentatope Number Division Algorithm	5.856
17.	International Journal of Research and Analytical Reviews, Volume 5, Issue 4	Nov 2018	2349-5138	Sums of Squares of Pyramidal Numbers	5.75
18.	International Journal of Research and Analytical Reviews, Volume 6, Issue 1	Jan 2019	2349-5138	Integer Triples comprising of Jarasandha Numbers in Arithmetic Progression & Geometric Progression	5.75
19.	International Journal of Scientific Research in Mathematical and Statistical Sciences, Volume 6, Issue 1	Feb 2019	2348-4519	Solutions of Pell's Equation involving Jarasandha Numbers	1.021
20.	Compliance Engineering journal, Volume 10, Issue 8	Aug 2019	0898-3577	Relation Between Lateral Surface Area of a Cube & Pyramidal Numbers	6.1
21.	ADALYA Journal, Volume 10, Issue 8	Aug 2019	1301-2746	Special Dio-Quadruples comprising of Centered Square numbers with property D(2)	5.3
22.	International Journal for Science and Advance Research in Technology, Volume 5, Issue 8	Aug 2019	2395-1052	Gaussian Diophantine Quadruples involving Gnomonic numbers with property D(4)	5.888
23.	International Journal of Recent Technology and Engineering (UGC CARE LIST 'II' & SCOPUS INDEXED),Volume 8, Issue 3	Sep 2019	2277-3878	Half Companion sequences of special Dio 3-tuples involving Centered square numbers	5.92
24.	Advances and Applications in Mathematical Sciences, (UGC CARE LIST 'I' & Web of Science), Volume 18, Issue 12	Oct 2019	0974-6803	Solution of Exponential Diophantine Equation involving Jarasandha Numbers	

25.	Aryabhatta Journal of Mathematics & Informatics, Vol 11, No. 2	July-Dec 2019	0975-7139	Correlation between Pyramidal Numbers	5.856
26.	International Journal of Scientific Research in Mathematical and Statistical sciences, Volume 6, Issue 6	Dec 2019	2348-4519	Some Non-Extendable Diophantine Triples involving Centered square numbers	1.021
27.	INFOKARA Journal, Volume 9, Issue 2	Feb 2020	1021-9056	Some Non-Extendable Special Dio- Triples involving Pentatope numbers	5.3
28.	PARISHODH Journal, Volume XI, Issue II	Feb 2020	2347-6648	On Generalized Fermat Equations involving Jarasandha Numbers	6.3
29.	International Journal of Scientific Research in Multidisciplinary Studies, Volume 6, Issue 6	Mar 2020	2454-9312	Integral solutions of the non-homogeneous Sextic equation with Three unknowns $3(x^2+y^2)-2xy = 972z^6$	1.021
30.	Journal of Xidian University, Volume 14, Issue 4	Apr-2020	1001-2400	Continued Fractions of Proportions of Consecutive Pyramidal Numbers	5.4
31.	International Journal of Scientific Research in Mathematical and Statistical sciences, Volume 7, Issue 2	Apr-2020	2348-4519	Observations on the Binary Quadratic Diophantine Equation $x^2-2xy-y^2+2x+14y=72$	1.021
32.	Aryabhatta Journal of Mathematics & Informatics, Volume 12, No.1	Jan-June 2020	0975-7139	Ramanujan-Type Diophantine Equation Involving Jarasandha Numbers	5.856
33.	JIJNASA, Volume 38, No.1	April 2021	0337-743X	Encryption Technique Using RSA Public Key Cryptography Involving Jarasandha Numbers Of Orders 2 And 4	-
34.	Utkal Historical Research Journal, Volume 34(V)	April 2021	0976-2132	Application of Number Theory in Balancing Chemical Equations And Ladder Problem in Statics	-
35.	Indian Journal of Advanced Mathematics (IJAM), Volume-1, Issue-2	October 2021	2582-8932 (Online)	Special Diophantine Triples Involving Square Pyramidal Numbers	-

36.	International Journal of Scientific Research in Mathematical and Statistical sciences, Volume 8, Issue 6	Dec 2021	2348-4519	Dio-Triples Involving Pentagonal Pyramidal Numbers	1.021
37.	International Journal for Research in Applied Science & Engineering Technology, Volume 10, Issue I	Jan 2022	2321-9653	Integral Solutions of the ternary cubic equation $6(x^2+y^2)$ $-11xy$ $=288z^3$	7.538
38.	Advances and Applications in Mathematical Sciences, (UGC CARE LIST 'I' & Web of Science), Volume 21, Issue 3	Jan 2022	0974-6803	Observations On Ternary Quadratic Equation $3x^2+2y=275z^2$	-
39.	Advances and Applications in Mathematical Sciences, (UGC CARE LIST 'I' & Web of Science), Volume 18, Issue 12	Jan 2022	0974-6803	Diophantine Triples Involving Square Pyramidal Numbers	-
40.	International Journal for Research in Applied Science & Engineering Technology, Volume 10, Issue III	March 2022	2321-9653	Special Dio 3-Tuples Involving Square Pyramidal Numbers	7.538
41.	International Journal of Scientific Research in Mathematical and Statistical sciences, Volume 9, Issue 2	April 2022	2348-4519	Observations On Ternary Quadratic Equation $9(x^2+y^2)-17xy+4x+4y+16=84z^2$	1.021
42.	International Journal of Scientific Research in Mathematical and Statistical sciences, Volume 9, Issue 4	Aug 2022	2348-4519	Construction of Diophantine Triples Involving Hexagonal Pyramidal Numbers	1.021
43.	International Journal of Scientific Research in Mathematical and Statistical sciences, Volume 9, Issue 4	Aug 2022	2348-4519	Integral solutions of an Exponential Diophantine Equation $25^x +24^y =z^2$	1.021
44.	Advances and Applications in Mathematical Sciences, (UGC CARE LIST 'I' & Web of Science), Volume 22, Issue 2	Dec 2022	0974-6803	Encryption Technique Involving Ramanujan Prime Numbers Using RSA Public Key Cryptography	-
45.	International Journal for Research in Applied Science & Engineering Technology, Volume 11, Issue II	Feb 2023	2321-9653	Formation of Diophantine Triples Involving Heptagonal Pyramidal Numbers	7.538

46.	International Journal for Research in Applied Science & Engineering Technology, Volume 11, Issue II	Feb 2023	2321-9653	Diophantine Triples Involving Octagonal Pyramidal Numbers	7.538
47.	Aryabhatta Journal of Mathematics & Informatics, Vol 15, No. 1	Jan – June 2023	0975-7139	Special Diophantine Triples Involving Octagonal Pyramidal Numbers	5.856
48.	Aryabhatta Journal of Mathematics & Informatics, Vol 15, No. 1	Jan – June 2023	0975-7139	Some Non-Extendable Special Diophantine Triples Involving Heptagonal Pyramidal Numbers	5.856
49.	International Journal for Research in Applied Science & Engineering Technology, Volume 12, Issue III	March 2024	2321-9653	Observations on Ternary Quadratic Diophantine Equation $12(x^2+y^2)-23xy+2x+2y+4=56\,z^2$	7.538
50.	International Journal for Research in Applied Science & Engineering Technology, Volume 12, Issue III	March 2024	2321-9653	Observations On Ternary Quadratic Diophantine Equation $8(x^2+y^2)-15xy+7x+7y+49=40\,z^2$	7.538
51.	The Mathematics Education, Volume LVIII, No. 1	March 2024	0047-6269	Integer Solutions of Some Exponential Diophantine Equations	-
52.	GANITA,Vol.74(2) (UGC CARE LIST 'I')	2024	0046-4502	Solutions Of Pell's Equation And Exponential Diophantine Equation Utilizing Ramanujan Prime Numbers Of Order 2	-
53.	International Journal for Research in Applied Science & Engineering Technology, Volume 13, Issue III	March 2025	2321-9653	Solution of Exponential Diophantine Equation Involving Fermat Primes	7.538

13. Details of Book Chapters Published:

S.No	Chapter Name	Book Name & Volume	Year of Publication	Print ISBN	eBook ISBN
1.	Integral Solutions of the Binary Quadratic Diophantine Equation $x^2-2xy-y^2+2x+14y=72$	Recent Advances in Mathematical Research and Computer Science Vol. 2, Chapter 8	Oct 2021	978-93-5547-178-9	978-93-5547-179-6

2.	Non-Extendability of Diophantine Triples Comprising Centered Square Numbers	Recent Advances in Mathematical Research and Computer Science Vol. 2, Chapter 9	Oct 2021	978-93-5547-178-9	978-93-5547-179-6
3.	Some Interesting Applications Of Number Theory	Emerging Trends in Science, Social Science, Engineering and Management-A Multidisciplinary Approach, Chapter 20	Dec 2021	-	978-93-5546-016-5
4.	Some Non-Extendable Special Dio 3-Tuples Involving Heptagonal Pyramidal Numbers	Explorations in Diophantine Equations, Chapter 5	Nov 2023	978-81-967488-3-8	978-81-967488-6-9
5.	Special Dio 3-Tuples Involving Octagonal Pyramidal Numbers	Explorations in Diophantine Equations, Chapter 8	Nov 2023	978-81-967488-3-8	978-81-967488-6-9.

14. Details of Papers Presented & Conference Attended:

S.No	Date	Organizer	Name of the Conference	Paper Name
1.	10th & 11th Feb 2016	Jamal Mohammed College, Tiruchirappalli	National Conference on Graph theory, Fuzzy Graph theory and their applications	Observations on the Ternary Quadratic Equation $5x^2 + 7y^2 = 972z^2$
2.	11th Dec 2017	Jamal Mohammed College, Tiruchirappalli	International Conference on Mathematical Methods and Computation	Special Dio 3-tuples for Pentatope Number
3.	Jan 7- 9, 2019	St.Joseph College, Tiruchirappalli	International Conference on Discrete Mathematics –ICDM 2019	Relation Between Lateral Surface Area of a Cube & Pyramidal Numbers
4.	Nov 11 & 12, 2021 (online)	Kristu Jayanti College, Bengaluru & Bengaluru North University	National Conference on Recent Trends in Pure and Applied Mathematics	Solution of a Fascinating Exponential Diophantine Equation involving Jarasandha Number of Order 2
5.	24-25 March 2023 & online	Srinivasa Ramanujan Centre, SASTRA Deemed University, Kumbakonam	International Conference on Mathematics and its applications In Technology (ICMAT23)	A Strategy for obtaining Digital Signatures and Public key Cryptosystems using Pell's equation with Kronecker symbol

| 6. | April 28-30, 2023 & online | Department of Mathematics Dayanand Vedic College, Orai (Jaluan) Uttar Pradesh, India | 24th Annual Conference of Vijñāna Parishad of India and National Seminar on New Thrust Areas in Mathematics, Mathematical Sciences and Engineering (NTAMMSE-2023) | Acquiring Half companion sequences of Diophantine triples inclusive of Gnomonic numbers |

15. Details of Workshops Attended:

S.No	Year & Date	Organizer	Title	National . International
1.	11.05.2020 to 15.05.2020	Sree Narayana Guru College, Coimbatore	Workshop on Mathematical Sciences for CSIR- NET, SET, GATE (Online)	State level
2.	13.07.2020 - 15.07.2020	Don Bosco College, Yelagiri Hills, TamilNadu in collaboration with Bosco Soft Technologies Pvt. Ltd.	Upscaling Pedagogy with Moodle	National
3.	24th & 25th July 2020	New Prince Shri Bhavani Arts and Science College, Chennai	National Level Workshop on Revised NAAC Accreditation Framework for Affiliated. Constituent Colleges- Online Pedagogy	National
4.	27th to 29th September 2021	Dnyandeep Mandal's St.Joseph College of Arts and Commerce, Satpala, Virar, Maharashtra	National Level Workshop on how to write Research Proposals for M.Phil and Ph.D Admission (Online)	National
5.	15th June 2024	Centre for Computer Science and Information Technology (CCSIT), Manjeri, University of Calicut	Online Workshop on Data Analytics & AI	National

16. Details of Orientation, Refresher Course, Certificate Course & NPTEL Attended:

S.No	Date	Title of the Course	Organizer
1.	08.05.2012 to 04.06.2012	74th UGC Sponsored Orientation Programme	Bharathidasan University, Tiruchirappalli.
2.	07.05.2020 to 22.05.2020	Certificate Micro Course- LiDA103 Certificate of Competency: Copyright and Creative Commons Licensing & a Badge	The Open Education Resource Universitas (OERu)
3.	August- October 2019	Matrix Analysis with Applications FDP & ELITE	NPTEL-AICTE
4.	August- October 2022	Descriptive Statistics with R Software FDP & ELITE+ silver	NPTEL-AICTE

5.	January-April 2023	Advanced Computational Techniques FDP & ELITE	NPTEL-AICTE
6.	10.02.2023-10.03.2023	30 Hours online Certificate Course on Research and Publication Ethics	Government of India, Ministry of Education
7.	July-September 2023	Introduction to Linear and Abstract Algebra FDP & ELITE+ silver	NPTEL-AICTE
8.	January-April 2024	Applied Linear Algebra in AI & ML FDP & ELITE	NPTEL-AICTE
9.	July- October 2024	A Basic Course in Number theory FDP & ELITE	NPTEL-AICTE

17. Details of Incharge . Participation in Extracurricular Activities :

(NSS, NCC, Sports, Games, Voluntary Association and Cultural Activities):

Nature of Activity	Period of In charge
Fine Arts In charge	2016-2017
Department Library In charge	2016-Till date
Department Profile In charge	2021- Till date

18. Details of Participation in Consultancy, Training, Development:

S.No	Development Programme
1.	Certified Microsoft Innovative Educator

19. Editorial Board Member – a) Aryabhatta Journal of Mathematics and Informatics.

b) Lattice Science Publications

20. Life time membership

➢ Bharat Ganita Parishad, Department of Mathematics and Astronomy, Lucknow, India

➢ Vijnana Parishad of India, D.V.Postgraduate College (Bundelkhand University), Orai, U.P, India

21. Details of Research Papers Reviewed:

No. Of Research Papers Reviewed : 77

No. Of Book Chapters Reviewed : 07

Reviewer in

➢ South East Asian Journal of Mathematics and Mathematical Sciences **(SCOPUS & UGC CARE LIST).**
➢ Indian Journal of Science and Technology **(WEB OF SCIENCE & UGC CARE LIST)**
➢ Journal of Pharmaceutical Research International (**WEB OF SCIENCE**).
➢ Asian Journal of Mathematics and Computer Research.
➢ Journal of Advances in Mathematics and Computer Science.
➢ Journal of Scientific Research and Reports.
➢ Asian Journal of Advanced Research and Reports.
➢ Asian Research Journal of Current Science.

- Asian Journal of Probability and Statistics.
- American Journal of Applied Mathematics.
- Asian Journal of Pure and Applied Mathematics.
- Asian Journal of Research and Reviews in Physics.
- Asian Research Journal of Mathematics.
- Asian Basic and Applied Research Journal.
- Book Chapter- Novel Research Aspects in Mathematical and Computer Science (BP International)
- Book Chapter- New Trends in Physical Science Research (BP International).
- Book Chapter - Research Highlights in Mathematics and Computer Science (BP International).
- Journal of Education, Society and Behavioural Science.
- Oriental Journal of Physical Sciences.

22. Details of Faculty Development Programme:

No. of Faculty Development Programme attended : 25

23. Details of Webinars Attended:

No. of Webinars attended : 34