

Profile

Name: Dr. A.Vijayasankar

Designation: Associate Professor

Qualification: M.Sc., M.Phil., Ph.D., PGDCA., M.Ed.,

Date of Joining: 01/03/2007



Publications:

1. Vijayasankar.A., Gopalan.M.A., Krithika. V., *Three curious Diophantine problems*, JP Journal of Mathematical Sciences, Vol.18, Iss.1 & 2, Pp:1-10, (2016)., ISSN No: 2248-9851. <http://www.iphsci.com>
2. Vijayasankar.A., Gopalan.M.A., Krithika. V., *Special Dio-quadruples with property $D(2)$* , International Journal of Applied Research, Vol.2, Iss.9, Pp:719-720, (2016)., ISSN No: 2394-5869. www.allresearchjournal.com
3. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the Sextic Diophantine equation with five unknowns $x^4 - y^4 = 61(z^2 - w^2)p^4$* , Open Journal of Applied and Theoretical Mathematics, Vol.2, Iss.3, Pp:18-26, (September 2016)., ISSN No: 2455-7102. <http://theojal.com/ojatm/>
4. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On a Diophantine problem*, International Journal of Multidisciplinary Research and Development, Vol.3, Iss.9, Pp:137-139, (September 2016)., ISSN No: 2349-4182. www.allsubjectjournal.com
5. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On a Diophantine Problem*, Global Journal for Research Analysis, Vol.6, Iss.5, Pp:550-552, (May 2017)., ISSN No: 2277-8160. www.worldwidejournals.com
6. Vijayasankar.A., Gopalan.M.A., Krithika. V., *Observations on $x^2 + y^2 + z^2 = w^2$* , International Journal of Recent Trends in Engineering and Research, Vol.3, Iss.5, Pp:378-381, (May 2017)., ISSN No: 2455-1457. www.ijrter.com
7. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the binary quadratic equation $x^2 - 18xy + y^2 + 32x = 0$* , International Journal of Emerging Technologies in Engineering Research, Vol.5, Iss.7, Pp:71-75, (July 2017)., ISSN No: 2454-6410. www.ijeter.everscience.org

8. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the Negative Pell equation $y^2 = 112x^2 - 7$* , International Journal of Engineering and Applied Statistics, Vol.4, Iss.7, (July 2017)., ISSN No: 2394-3661. www.ijeas.org
9. Gopalan.M.A., Krithika .V., Vijayasankar.A., *Integral solutions of non-homogeneous quintic Diophantine equation with five unknowns $3(x^4 - y^4) = 26(z^2 - w^2)p^3$* , International Journal of Research – Granthaalayah , Vol.5, Iss.8, Pp:25-33, (August 2017)., ISSN No: 2350-0530. www.granthaalayah.com
10. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the Sextic Diophantine equation with five unknowns $2(x + y)(x^3 - y^3) = 61(z^2 - w^2)p^4$* , Asian Journal of Applied Science and Technology, Vol.1, Iss.7, Pp:21-24, (August 2017)., ISSN No: 2456-883X. www.ajast.net
11. Vijayasankar.A., Gopalan.M.A., Krithika. V., *Three sequences of Special Dio Triple*, Research Inveny : International Journal of Engineering and Science, Vol.6, Iss.9, Pp:50-55, (September 2017)., ISSN No: 2278-4721. www.researchinveny.com
12. Vijayasankar.A., Gopalan.M.A., Krithika. V., *Integral solutions of non-homogeneous quintic Diophantine equation $x^3 + y^3 = 2z^5$* , Bulletin of Mathematics and Statistics Research, Vol.5, Iss.3, Pp:84-87, (July – September 2017)., ISSN No: 2348-0580. www.bomsr.com
13. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the binary quadratic equation $ax^2 - (a + 1)y^2 = a$* , World Journal of Engineering Research and Technology , Vol.3, Iss.5, Pp:473-479, (September 2017). ISSN No: 2454-695X. www.wjert.org
14. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On ternary cubic Diophantine equation $2(x^2 + y^2) - 3xy = 56z^3$* , World Wide Journal of Multidisciplinary Research and Development, Vol.3, Iss.11, Pp:6-9, (November 2017)., ISSN No: 2454-6615. www.wwjmr.com
15. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the Hyperbola $2x^2 - 3y^2 = 15$* , Indo – Iranian Journal of Scientific Research, Vol.1, Iss.1, Pp:144-153, (December 2017)., ISSN No. 2581-4362. www.ijjsr.com
16. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the Cubic Diophantine equation with Four unknowns $x^2 + y^2 = z^3 - w^3$* , Journal of Mathematics and Informatics, Vol.11, (December 2017)., ISSN No: 2349-0640. www.researchmathsci.org

17. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the cubic Diophantine equation with four unknowns $x^2 - y^2 = z^3 - w^3$* , International Journal of Scientific Progress and Research, Vol.43, Iss.122, Pp:62-66, (January 2018)., ISSN No: 2349-4689. www.ijSpr.com
18. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On Bi-quadratic Diophantine equation with three unknowns $7(x^2 - y^2) + x + y = 8z^4$* , International Journal of Advanced Scientific and Technical Research, Vol.1, Iss.8, Pp:52-57, (January 2018)., ISSN No: 2249-9954. www.rpublication.com/ijst/index
19. Vijayasankar.A., Gopalan.M.A., Krithika. V., *On the Bi-quadratic Diophantine equation with five unknowns $2(x^4 - y^4) = 13(z^2 - w^2)p^2$* , International Journal of Mathematical Archive, Vol.9, Iss.4, Pp:26-31, (March 2018).ISSN No: 2229-5046. www.ijma.info
20. Vijayasankar.A., Krithika.V., Gopalan.M.A., *Lattice Points on the Cone $z^2 = 15x^2 - 6y^2$* , Journal of Physical Sciences, Vol.24, Pp: 107-113., (June 2019)., ISSN No: 2350-0352. www.vidyasagar.ac.in/publication/journal
21. Krithika.V., Vijayasankar. A., Gopalan.M.A., *On System of triple Diophantine Equations $x + y = a^2, 2x + y = a^2 + b^2, x + 2y = a^2 + 2c^2$* , Journal of Engineering, Computing and Architecture, Vol.10, Iss.4, Pp: 60-68, (April 2020)., ISSN No: 1934-7197. www.journaleca.com
22. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, “Construction of Two Special Dio-Quadruples with Property D(2)”, IJSRM, 13(4), Oct 2019, Pp: 72-77, ISSN : 2454-2008, Indexed in Google Scholar and Pub Med.<http://ijsrm.humanjournals.com/wp-content/uploads/2019/11/7.A.-Vijayasankar-Sharadha-Kumar-M.A.-Gopalan.pdf>
23. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, “A Search For Integer Solutions To Ternary Bi-Quadratic Equation $(a + 1)(x^2 + y^2) - (2a + 1)xy = [p^2 + (4a + 3)q^2]z^4$ ”, EPRA(IJMR), 5(12), Dec-2019, Pp: 26-32, ISSN : 2455 - 3662, DOI:10.36713, Indexed in Google Scholar and Publons.<https://eprajournals.com/jpanel/upload/a-search-for-integer-solutions-to-ternary-bi-quadratic-equation.pdf>
24. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, “ On Sequences of diophantine 3-tuples generated through Pronic Numbers”, IOSR(JM), 15(5) Ser.II, Sep-Oct 2019, Pp:41-46, ISSN: 2278-5728, Indexed in Google Scholar, DOI:10.9790.<http://www.iosrjournals.org/iosr-jm/papers/Vol15-issue5/Series-2/G1505024146.pdf>
25. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, “On the pair of Equations $x + y = z + w, y + z = (x - w)^2$ ”, JMSS, Vol.9, 2019, Pp:115-118.
26. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, “Two special Dio-quadruples generated through Euler Polynomials”, IJiet, 14(2), Sep- 2019, Pp:21-23.

27. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "On the System of Equations $x + y = z + w$, $y + z = (x + w)^3$ ", Infokara Research, 8(9), 2019, Pp: 595-597.
28. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "Sequences of D(1) Diophantine Quadruples generated through Pronic Numbers", JOICS, 9(10), 2019, Pp: 350-352.
29. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "On Three Figurate Numbers with Same Values", IJISRT, 4(11), Nov-2019, Pp:799-802.
30. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "On Sequences of dio 3-tuples generated through polynomials, JICR, 11(11), Nov-2019, Pp:593-604.
31. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "Triangular Numbers Simultaneously Equal to Hexagonal and Star Numbers", IJESRT,8(12), Dec-2019, Pp:45-47.
32. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "Formulation of Curious Family of 3-tuples", 4(1),IJIESR, Jan-Feb 2020, Pp:1-11.<http://www.ijiesr.com/liebrary/e23/922426972.pdf>
33. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "On the Non-Homogeneous Bi-Quadratic Equation with Four Unknowns $8xy + 5z^2 = 5w^4$ ", Jouranl of Xi'an University of architecture & Technology, 12(2), 2020, Pp:1108-1115.
34. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "On The System Of Triple Equations with Five Variables $x + y = a^2$, $2x + y = b^2$, $x + 2y = a^2 - c^2$ ", JSC, 9(1), Pp:26-28.
35. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "On Non-Homogeneous Ternary Bi-Quadratic Equation $x^2 + 7xy + y^2 = z^4$ ", Compliance Engineering Journal, 11(3), 2020, Pp:111-114.
36. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, "Construction of Sequences of Diophantine 3-Tuples Through the Ratio of Pentatope and Tetrahedral Numbers", Aegaeum Journal, 8(3), 2020, Pp:1057-1070.
37. A.Vijayasankar, S.Kumar, M.A.Gopalan, " On the ternary quadratic Diophantine equation $2x^2 + 5y^2 = 13z^2$ ",Vidyabharati International Interdisciplinary Research Journal (Special Issue on Recent Research Trends in Management, Science and Technology), Pp:758-762, August-2021.
38. A.Vijayasankar, SharadhaKumar ,M.A.Gopalan, " On Non-Homogeneous Ternary Cubic Equation $x^3 + y^3 + x + y = 2z(2z^2 - \alpha^2 + 1)$ ", International Journal of Research Publication and Reviews, 2(8) , Pp:592-598, 2021.
39. A.Vijayasankar, Sharadha Kumar, M.A.Gopalan, " On Non-Homogeneous Bi-Quadratic Equation with four Unknowns $x^4 + y^4 + (x - y)z^3 = 2(k^2 + 3s^2)^2 w^2$, Special Issue on Recent Research Trends in Management, Science and Technology, Pp:1570-1572, August 2021.
40. A.Vijayasankar, SharadhaKumar ,M.A.Gopalan, " On The Homogeneous Cone $z^2 = (2k^2 - 2k + 22)x^2 + y^2$ ", Stochastic Modeling & Applications, (January-June) Special Issue 26(3) [Part-1] , Pp: 98-103, 2022 .
41. A.Vijayasankar, SharadhaKumar ,M.A.Gopalan, " On Homogeneous Quadratic with Five Unknowns $4w^2 - x^2 - y^2 + z^2 = 16t^2$ ", Stochastic Modeling & Applications, (January-June) Special Issue 26(3) [Part-1] , Pp: 17-20, 2022.

42. Vijayasankar A., Sharadha Kumar and Gopalan M. A., “On Non-Homogeneous Quinary Quintic Equation $(x^4 - y^4) = 125(z^2 - w^2)p^3$, South East Asian J. of Mathematics and Mathematical Sciences, Vol. 18, No. 1 (2022), pp. 27-34.

Conference / Workshops attended:

S.No:	Name of the institution	Title	Date
1.	National College (Autonomous), Trichy.	Training Programme on LATEX	September 23-27 2013.
2.	ICOMAC 2014, Jamal Mohamed College, Trichy.	Integral solutions of Ternary Quadratic Diophantine equation $x^2 + 11y^2 = 15z^2$	February 13 th and 14 th 2014
3.	Two day State Level Workshop, National College (Autonomous), Trichy.	LATEX – Typesetting Tool	September 14 th & 15 th 2015.
4.	National College (Autonomous), Trichy.	Workshop on Real Analysis.	22 nd February 2019.
5.	Five day Online faculty Development Programme, Saranathan College of Engineering, Trichy.	Emerging Trends of Mathematics in Multidisciplinary Domain.	26 th to 30 th July 2020.

Seminars attended:

S.No:	Name of the institution	Title	Date
1.	National College (Autonomous), Trichy.	Workshop on Real Analysis.	22 nd February 2019.
2.	National College (Autonomous), Trichy.	Seminar on Pure and Applied Mathematics.	21 st February 2020.
3.	Ururu Dhanalakshmi College, Trichy.	Inner Product Space	6 th July 2020.
4.	Ururu Dhanalakshmi College, Trichy.	Complex Analysis	10 th July 2020.
5.	Saraswathi Narayan College, Madurai.	Enhancing the Concepts of Sequences.	20 th July 2020.

6.	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.	Decimal Expansion, Gauss Conjecture & Borel Conjecture.	25 th July 2020.
7.	SCAD Polytechnic College.	Introduction to Graph Algorithms.	25 th July 2020.
8.	Dr. Zakir Hussain College, Ilayankudi, Sivagangai.	Basic Concepts of Modern Algebra.	27 th July 2020.
9.	Vivekanda College, Kanyakumari.	College Level Modern Algebra.	27 th July 2020.
10.	Manipal University, Jaipur.	Numerical & Scientific Computing.	28 th July 2020.
11.	Government College for Women, Kumbakonam.	Homomorphisms on Cyclic groups	31 st July 2020.
12.	Seethalakshmi Ramaswami College, Trichy.	DEA: An Extension of LPP and Performance Managemant.	1 st August 2020.
13.	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.	Some Problems on Global Analysis	1 st August 2020
14.	Periyar EVR College, Trichy.	Uniformly Continous Functions	7 th August 2020.
15.	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.	Applications of Number Theory in Cryptography.	11 th July 2020
16.	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.	Applications of linear Programming in Performance Measurement.	8 th August 2020.
17.	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.	Role of Fuzzy Algebra	27 th August 2020.
18.	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.	The Axiom of choice and some of its Congruences.	28 th August 2020.
19.	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.	Functions of Bounded Variations	29 th August 2020.

20.	Kuriakose Elias College, Mannanam.	Higher Studies in Mathematics	11 th September 2020.
21.	Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai.	Mathematical Modelling of Infectious diseases.	12 th September 2020.

Books Published:

A Collection of Special Higher Degree Diophantine Equations (Problems and Solutions), Sara Book Publication.

Lectures: Nil

Experience:

Duration	College
1994-1996	National College (evening)
1996-1999	Shrimad Andavan Arts and Science College
1999-2007	Chidambaram Pillai College, Trichy.
1.03.2007 to till date	National College, Trichy.

Achievements:

- 1) Served as Chairperson in the International Conference on Mathematical Methods and Computation organized by PG & Research Department of Mathematics, Jamal Mohamed College, Trichy on 22nd and 23rd January 2015.
- 2) Acted as a member of Organizing Committee in the International Conference on Discrete Mathematics (ICDM VI 2018) organized by PG & Research Department of mathematics, National College (Autonomous), Trichy on 14th – 17th December 2018.

3) Served as Chairperson in the International Conference on Mathematical Methods and Computation organized by PG & Research Department of Mathematics, Jamal Mohamed College, Trichy on 20th and 21st February 2019.

Research:

(i)Ph.Ds Guided:

Student Name	Title	Year
V.Krithika	A Peer Search On The Integral Solutions Of Special Diophantine Equations of Degree Atmost Six	14 th June 2019
Sharadha Kumar	Diophantine equations and Number Patterns	20 th December 2022

(ii)Sponsored Research: Nil

Membership: Member of Ramanujan Mathematical Society

Extension Activities: Youth Red Cross

Department Association Vice President

