PROFILE

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Designation : Associate Professor

Department of Mathematics

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

Date of Joining: 19.12.2007

Publications:

1. On quadratic diophantine equation with four variables, Bulletin of Pure and Applied Sciences, Vol, **24E**, No: 2: 389-391, (2005).
2. On the bivariate cubic equation $(x+y)^3 = xy$ Published in Acta Ciencia Indica, Vol. XXXI M, N0.3, 645(2005).
3. On double and triple nasty numbers , Acta Ciencia Indica, Vol.XXXIM,No: 2,567(2005).
4. Triple coincidence among R_2 numbers, PROC. NAT. ACAD.CI. INDIA, 75(A), III, 2005.
5. Parametric integral solutions of $A^2+B^2+C^2-D^2 = P^3+Q^3$, Acta Ciencia Indica, Vol.XXXI M,No:4,995(2005).
6. Parametric integral solutions of the cubic diophantine equation $x^2 + y^2 = (x - my)^3$,Antarctica Journal of Mathematics, 3(2) (2006), 127-130.
7. On Ternary Cubic Diophantine Equation $x^2 + y^2 = 2z^3$, Advances in Theoretical and Applied Mathematics (ATAM) Vol. 1 , No: 3 227-231,2006.
8. On Pairs of m-Gonal Numbers with unit difference, Advances in Theoretical and Applied Mathematics (ATAM) ,Vol. 1 ,No: 3 197-231,2006.
9. Integral solutions of $ax^2 + by^2 = w^2-z^2$ Advances in Theoretical and Applied Mathematics (ATAM) Vol. 1, No: 3, 223-226, 2006.
10. On Ternary Cubic Diophantine Equation $x^2 + y^2 = 2z^3$, Advances in Theoretical and Applied Mathematics (ATAM) Vol. 1, No: 3, 227-231, 2006.

11. Observations on $X^2 = 8\alpha^2 + Y^2$, Advances in Theoretical and Applied Mathematics (ATAM) Vol. 1, No: 3, 245-248, 2006.
12. On divisibility of special numbers, Acta Ciencia Indica,Vol.XXXIIM,No.1,291(2006).
13. A method of obtaining R_2 numbers, Bulletin of Pure and Applied Sciences, Vol.25E, No: 2: 371-374, (2006).
14. A Remarkable Lenakel Sequence, PROC. NAT. ACADSCI.INDIA, 77(A),II, 2007.
15. On quadratic diophantine equation with four variables, Antarctica J.Math.4(1)(2007),41-45.
16. On R_2 numbers, Acta Ciencia Indica,Vol.XXXIII M,No:2,617(2007).

17. M-Gonal Number -1 = A Perfect Square, Ciencia Indica,Vol.XXXIII M,No:2,479(2007).
18. Fourth Order Ramanujan Numbers, Acta Ciencia Indica, Vol.XXXIII M,No:2,615(2007).
19. Note on the equation $x^3 + y^3 = a\left(x^2 - y^2\right) + b\left(x + y\right)$,International Journal of Mathematics, Computer Sciences and Information Technology,Vol.1, No.1, January – June 2007,pp 135-136.
20. On Space Pythagorean equation $X^2 + Y^2 + Z^2 = W^2$,International Journal of Mathematics, Computer Sciences and Information Technology,Vol.1,No.1, January – June 2007,pp 129-133.
21. Parametric solutions of $X^2 - Y^6 = Z^2$,Acta Ciencia Indica,Vol.XXXIII M,No:3,1083(2007).
22. Integral solutions of $kxy + m\left(x + y\right) = z^2$,Acta Ciencia Indica,Vol.XXXIII M,No:4,1287(2007).
23. Parametric Integral solutions of $x^2 + y^3 = z^4$,Acta Ciencia Indica,Vol.XXXIII M,No:4,1261(2007).
24. Parametric Integral solutions of $x^2 - y^2 = z^3$,Acta Ciencia Indica,Vol.XXXIII M,No:3,705(2007).
25. Integral Solutions of the ternary quadratic diophantine equation $y^2 = 2x^2 + z^2$,International Journal of Mathematics, Computer Sciences and

Information Technology,Vol.1,No.1,July– December 2008,pp 157-160.

26. Observations of Carmichael numbers with four factors, Bulletin of Pure and Applied Sciences,Vol.27E (No.1) 2008, P17-19
27. Integral Solutions of the ternary cubic diophantine equation $x^3 + y^3 = z^2$,Impact.J.Sci.Tech.Vol 2 (4),169-173,2008.
28. On two special ternary quadratic diophantine equations ,Impact.J.Sci.Tech.Vol 2 (4),17-24,2008.
29. Integral Solutions of $x^3 + x + y^3 + y = 4z(z-2)(z+2)$, Impact.J.Sci.Tech.Vol 2 (1), 65-69,2008.
30. Integral Solutions of ternary quadratic diophantine equation $x^2 + y^2 = (k^2+1)^n z^2$, Impact. J.Sci.Tech. Vol 2 (1),175-178, 2008.
31. On the heptic Diophantine equation with five unknowns $x^4 - y^4 = (x^2 - y^2)z^5$, Antartica J.Math,9(5), 2012, 371-375.
32. Integral solutions of non-homogeneous quartic equation $x^4-y^4 = (k^2+1)(z^2-w^2)$, Archimedes J.Math., 1(1)(2011), 51-57.
33. Relations among special figurate numbers through the equation $y^2 = 10x^2 +1$.Impact J. Sci. & Tech., Jan – Jun 2011 vol.5 No.1.Pg.47-60.
34. Observations on the higher degree Diophantine equation $x^2 + y^2 = (k^2 +a^2) z^m$.Impact J. Sci. & Tech., Jan – Jun 2011 vol.5 No.1.Pg.67-70.
35. Observations on the ternary quadratic equation $y^2 = 3x^2 + z^2$, Bessel J.Math.,2(2), 2012, 101-105. On the homogeneous ternary quadratic diophantine equation $x^2 + (2k+1)y^2 = (k+1)^2 z^2$, Bessel J.Math.,2(2), 2012, 107-110.
36. "Gaussian integer solution for a special equation $y^2 + x^2 = 2z^2$, Advances in Theoretical and Applied Mathematics,Vol.7, No.4,(2012), 329-335.
37. "Second order Gaussian Ramanujan numbers", GJPAM(Global Journal of Mathematics and Mathematical Sciences), vol.2, No.1, 1-5, (2012)
38. , Gaussian Integer solution for a special Elliptic Paraboloid equation $3x^2 + 2y^2 = 3z$, IJMA, vol.5, No.2, (Dec.2012)159-162.
39. Integral points on the hyperbola $(a+2)x^2 - ay^2 = 4a(k-1) + 2k^2$, a, k > 0, IJS, vol.1No.1, pg.1-5, Dec.2012
40. Integral solutions of a biquadratic equation with four unknowns $xy + (k^2+1)z^2 = 5w^4$, PAJM, July-Dec 2012, vol.1 Pg185-190

41. Integral points on the homogeneous cone $z^2 = 5x^2 + 11y^2$, Discovery Science, Vol.3, No.7 pp.5-8, Jan.2013.
42. Lattice Points on the Homogeneous cubic equation with four unknowns $(x + y)(xy + w^2) = (k^2 - 1)z^3, k > 1$, Indian Journal of Science, Vol.2,No.4, pp.97-99,Feb.2013.
43. Integral solutions of the quadratic equation with four unknowns $x^2 = y^2 + zw + 3w^2$, IJPAMS,Vol.6, No.2, pp.241-246,2013.
44. Equality of centered decagonal number with special m-gonal numbers, IJESM Vol.2, No.2,pp.208-212, June 2013.
45. Integral points on the quadratic equation with four unknowns $2(x^2 + y^2) + 3xy + x - y + 1 = z^2 + 7w^2$, Diophantus Journal of Mathematics, Vol.2 , No.1,pp 47-54, 2013.
46. Equality of centeredtetradecagonal number with special m-gonal numbers, Bessel Journal of Mathematics, Vol.3, No.1, pp.181-185,2013.
47. On the ternary quadratic equation $5(x^2 + y^2) - 9xy = 19z^2$, IJIRSET, Vol.2 No.6,pp.2008-2010. June 2013.
48. Centered m-gonal number-1= a perfect square, Archimedes Journal of Mathematics, Vol.3, No.3, pp.233-236, 2013.
49. Centered m-gonal number-1= a perfect square, International Journal of Applied Mathematical Sciences, Vol.6, No.1,pp.81-83. 2013.
50. Lattice Points on the Homogeneous cubic equation with four unknowns $x^2 - xy + y^2 + 3w^2 = 7z^3$,IJCER, Vol.3. No.7, pp. 24-26, July 2013.
51. Pythagorean triangle and special pyramidal numbers, IOSR Journal of Mathematics, Vol.7 No.4, pp.21-22, July-Aug. 2013.
52. Pythagorean triangle and pentagonal number, Cayley Journal of Mathematics, Vol.2 No.2,pp.151-156, 2013.
53. Observations on rhombic dodecahedral number, International Journal of Engineering Research-Online, Vol.1, No.2, pp.283-288, 2013.
54. Observations on triangular prism number, IJITR, Vol.1, No.5, pp.427-432. Aug-Sep.2013.
55. Pythagorean Equation and Special m-gonal Numbers, Antarctica J.Math.Vol.16,No. 6,pp.611-623, 2013.
56. On the integer solutions of the Pell equation $x^2 - 18y^2 = 4^k$,International Journal of Engineering Science Invention,Vol. 12,No.12,pp. 01-03,2013.
57. Construction of Diophantine triple involving polygonal numbers, Scholars Journal of Engineering and technology, Vol.2,No.1,pp.19-22,2014.
58. On the integer solutions of the Pell equation $x^2 - 3y^2 = (k^2 + 4k + 1)^t$, Jamal research journal-proceedings of ICOMAC, pp.256-258,Feb.2014.

59. On the integer solutions of the Pell equation $x^2 = 13y^2 - 3^t$,International Journal of Applied Mathematical Research, Vol.3,No.1,pp.58-61,2014.
60. Observations on the ternary quadratic equation $X^2 = 24\alpha^2 + Y^2$,Bulletin of Society for Mathematical Services &Standards, Vol. 3,No. 2, pp. 88-91,2014.
61. Construction of strong and almost strong rational Diophantine quadruples, JP Journal of Algebra, Number Theory and Applications,Vol.35,No.1,pp.35-48,2014.
62. On the non-homogeneous heptic equation with five unknowns $(x^2 - y^2)(4x^2 + 4y^2 - 6xy) = 8(X^2 - Y^2)z^5$,International Journal of Innovative Research and Review,Vol.2,No.4,pp.23-26,2014.
63. Integral points on the non-homogeneous cubic equation with five unknowns$x^3 - y^3 = z^3 - w^3 + 12t^2$ International Journal of Innovation in Science and Mathematics Vol.2,No.6,pp.576-577,2014.
64. Integer solutions of non-homogeneous biquadratic equation with four unknowns $4(x^3 + y^3) = 31(k^2 + 3s^2)zw^3$,Jamal Academic Research Journal, Special issue,pp.296-299,2015.
65. Integer solutions of non-homogeneous cubic equation with five unknowns $x^3 - y^3 - (x^2 + y^2) + z^3 - w^3 = 2 + 5(x - y)(z - w)^2p^4$,International Journal of Scientific and Research Publications, Vol.5.,No.1, pp.1-3,2015.
66. Integer solutions of non-homogeneous biquadratic equation with four unknowns $xy + (k^2 + 1)z^2 = 2^{2n}w^4$,Proceedings of ReDeEM ,Thiagarajar College,Madurai,pp.119-124,2015.
67. Non-extendable special rational dio triples, International Journal of Mathematical Sciences and Applications,Vol.5,No.2,pp.233-241,2015.
68. Pythagorean triangle with area/perimeter as a quartic integer,IJERM,Vol.2,No.3,pp.84-85,2015.
69. Integer solutions of non-homogeneous heptic equation with five unknowns $x^3 - y^3 - (x^2 + y^2) + z^3 - w^3 = 2 + 5(x - y)(z - w)^2p^4$,International Journal of Scientific and Research Publications, Vol.5, No. 1, pp.1-3, 2015
70. Special Pythagorean triangles and 10 digit dhuruva numbers, Global Journal of Science Frontier Research : F,Vol.15,No.5,Version 1.0,pp.13-18,2015.
71. Observations on the hyperbola $y^2 = 18x^2 + 1$, RETELL, Vol.13, No.1, PP.81-83, Nov 2012
72. Integral points on the homogeneous cone, Asian Academic Research journal of Multi Disciplinary, $x^2 = 26z^2 - 4y^2$, Vol.1, Issue-4, PP.62-71, Dec 2012.

73. Observations on cubic equation with four unknowns $x^3+y^3+xy(x+y)=z^3+2(x+y)w^2$, International journal of pure and applied Mathematical Sciences, Vol.6, No.1, PP.25-30, Feb 2013.
74. On the ternary quadratic equation $z^2=a^2(x^2+y^2)+bxy$, Indian journal of Science, Vol.2, Issue-4, No.4, PP 82-85, Feb 2013.
75. On the Ternary cubic Diophantine equation $x^2+y^2-xy=z^3$, Bessel Journal of Mathematics, Vol.3, No.2,PP.199-123, 2013.
76. Integral solutions of quadratic equation with four unknowns $xy+z(x+y)=w^2$, Impact Journal of science and Technology, Vol.7, No.1, PP.1-8, Jan-Mar 2013.
77. Equality of centered hexagonal number with special M-gonal number, Global journal of Mathematics and Mathematical Science, Vol.3, No.1, PP.41-45, 2013.
78. On pairs of M-gonal numbers with unit difference, International Journal of Engineering Science and Mathematics, Vol.2, Issue.2, PP.219-222, June 2013.
79. Observations on Triacontagonal number , International journal of Engineering sciences and Mathematics, Vol.2 ((2) June 2013, 82- 92
80. Observations on Icosogonal number, International journal of computational Engineering Research, Vol.3, Issue:5, PP.28-34, May 2013.
81. On pairs of Special Polygonal numbers with unit difference, International journal of Modern Engineering Research, Vol.3, Issue: 3, PP.1520-1522, May-June 2013.
82. Observation on Icosogonal Pyrmidal number, International Refeered Journal of Engineering and Science, Vol.2, Issue: 7, PP. 32-37, July 2013.
83. Equality of Star number with special M-gonal numbers, Diophantus Journal of Mathematics, Vol.2, No.2, PP.65-70, 2013.
84. Pythagorean Triangle with Area/ Perimeter as a special polygonal number, International Organization of Scientific Research, Vol.7, Issue:3, PP.52-62, July – Aug 2013.
85. Relation between M-gonal number through the solution of the Pythagorean equation, Cayley J.Math., 2(2), 175-181, 2013.
86. Observations on Icosahedral numbers, International journal of Engineering Research, Vol.1, issue.3, 395-400, 2013.

87. On special Diophantine triples, Archimedes journal of mathematic Diophantine, 4(1), 2014, 37 – 43.

88. A ternary quadratic Diophantine equation $8\left(x^2+y^2\right)-15xy+\left(x+y\right)+1=32z^2$, Proceedings of the international conference on Mathematical methods and computation, Feb 13th and 14th 2014, 246- 251.

89. On the rational Diophantine triples and quadruples, International journal of Scientific research publications, 4(9), Pg.1-6, sep 2014.Special Dio- 3 tuples , Bulletin of Society for Mathematical Services & Standards, Vol. 3 No. 2 (2014), pp. 41-45.

90. Construction of Diophantine triples for polygonal numbers ($t_{26,n}$ to $t_{35,n}$) and centered polygonal numbers ($ct_{26,n}$ to $ct_{35,n}$), International journal of Modern sciences and Engineering Technology, Vol.1, Issue.8, PP.88-93, 2014.

91. On the non-homogeneous Biquadratic equation with 4unknowns $x^3+y^3+2z^3=3xyz+6(k^2+s^2)(x+y)w^3$, International journal of Physics and Mathematical Sciences, Vol.4(4), Oct- Dec 2014, Pp.1-5.

92. On the homogeneous Biquadratic equation with 5 unknowns $x^4-y^4=10(z^2-w^2)R^2$ Jamal Academic Research Journal: An interdisciplinary", International Conference on Mathematical Methods and computation, Pg.268-273.

93. On special integer triples (m, n, k), International journal of Multi disciplinary research and development, 2(1), Pg. 201-202, 2015.

94. Special Pythagorean Triangles And 9-Digit Dhuruva Numbers, International journal of Engineering research and Application, Vol.5, Issue.3, March 2015, PP,159-165.

95. Pairs of Pythagorean triangles and Diophantine tuples, Proceedings of National Conference (UGC sponsored) on Recent Developments on Emerging fields in Pure and applied Mathematics, Pp.160-168, Mar – 12th and 13th 2015.

96. A ternary quadratic Diophantine equation $7x^2+9y^2=z^2$, Bulletin of Mathematics and statistics research, Vol.2, issue.1,2014.

97. M-gonal $\pm$ 2 = A perfect square, International journal of Innovative Technology and Research, Vol.2, Issue 6, Pp.1618-1620, Oct- Nov 2014.

98. A ternary cubic Diophantine equation $x^2 + y^2 - xy = 28z^3$, Proceedings of National conference (UGC sponsored) on Recent trends in Mathematical models, Mar 12th and 13th 2014.

99. Pythagorean triangle with hypotenuse – (4Area/ Perimeter) as a quartic integer, International journal of engineering research, Vol.3, Issue.4, Pp.151-155, July- Aug 2015.

100. On the homogeneous biquadratic equation with 5 unknowns, $\left(x^2 - y^2\right)\left(\left(4k-1\right)\left(x^2 + y^2\right) - \left(4k-2\right)xy\right) = 2\left(4k-1\right)\left(p^2 - q^2\right)z^2$ International journal of Innovative science and modern engineering, Vol.3, Issue.8, July 2015

101. Gaussian integer solutions to space Pythagorean Equation $x^2 + y^2 + z^2 = w^2$ ", International Journal of Modern Trends in Engineering and Research, Volume 3, Issue 4, 287 – 289, April 2016.

102. Gaussian Pythagorean Triples, International Journal of Engineering Research and Management (IJERM), Volume 03, Issue 04, 131 – 132, April 2016.

103. Congruum Problem, International Journal of Pure and Applied Mathematical Sciences (IJPAMS), Volume 9, Number 2 ,123-131 2016.

104. Integral Solutions of an Infinite Elliptic Cone $X^2 = 4Y^2 + 5Z^2$ ", IJIRSET, Volume 5, Issue10,17551 – 17557, October 2016.

105. Lattice Points of an Infinite Cone $x^2 + y^2 = 85z^2$, International Journal of Recent Innovation in Engineering and Research(IJRIER), Vol. 1 Issue. 5, September 2016, pp. 14 -17.

106. Integral Solutions of an Infinite Cone $\alpha(x^2 + y^2) = (2a-1)xy + (4\alpha - 1)z^2$, International Journal for Research in Applied Science and Engineering Technology , Vol. 4 Issue X, October 2016, pp(504 - 507).

107. Lattice Points of an Infinite Cone $x^2 + y^2 = (\alpha^{2n} + \beta^{2n})z^2$, International Journal of Mathematical Trends and Technology, Vol. 38 No. 2, 95 – 98, October 2016.

108. "Families of Solutions of a Cubic Diophantine Equation", International Journal for Research in Applied Science and Engineering Technology, Vol. 4 Issue XI, 432 – 434,November 2016.

109. "Gaussian Integer Solutions of an Infinite Elliptic Cone $5X^2 + 5Y^2 + 9Z^2 + 46XY - 34YZ - 22XZ = 0$ ", International Journal of Science and Research (IJSR), Volume 6 Issue 5, 296 – 299,May 2017.

110. Lattice Points Of A Cubic Diophantine Equation $11(x + y)^2 = 4xy + 44z^3$, International Journal for Research in Applied Science and Engineering Technology (IJRASET), Vol. 5 Issue V, 1797 – 1800,May 2017.

111. Gaussian integer solutions to space Pythagorean Equation $x^2 + y^2 + z^2 = w^2$ ", International Journal of Modern Trends in Engineering and Research(IJMTER), Volume 4, Issue 7, 45 – 48,July 2017.

112. Exponential Diophantine equation in three variables $7^x + 7^{2y} = z^2$, International Journal of Engineering Research – Online(IJOER), Volume .5, Issue 4, 91- 93,July – August 2017.
113. Solutions of Pell's Equation Involving star Primes, International Journal of Engineering Science and Mathematics(IJESM), Volume. 6 Issue 4, 96 – 98,August 2017.
114. Gaussian Integer Solutions of an Infinite Elliptic Cone $5X^2 + 5Y^2 + 9Z^2 + 46XY - 34YZ - 22XZ = 0$ ", International Journal of Science and Research (IJSR), Volume 6 Issue 5, 296 – 299,May 2017.
115. Lattice Points of A Cubic Diophantine Equation $11(x + y)^2 = 4xy + 44z^3$ ", International Journal for Research in Applied Science and Engineering Technology (IJRASET), Vol. 5 Issue V, 1797 - 1800,May 2017.
116. Gaussian Integer Solutions of an Infinite Elliptic Cone $73x^2 + 70xz + 73y^2 + z^2 = 54y(3x + z)$ ", International Journal of Modern Trends in Engineering and Research (IJMTER), Volume 4, Issue 7, 45-48,July 2017.
117. Exponential Diophantine equation in three variables $7^x + 7^{2y} = z^2$", International Journal of Engineering Research – Online(IJOER), Volume .5, Issue 4, 91- 93,July – August 2017.
118. Solutions of Pell's Equation Involving star Primes", International Journal of Engineering Science and Mathematics (IJESM), Volume. 6, Issue: 4, 96 – 98, August 2017.
119. Exponential Diophantine Equation in Two and Three Variables", Global Journal of Pure and Applied Mathematics (GJPAM), Volume 13, Special Issue No. 5, 128 – 132,September 2017.
120. On Polynomial Solutions of Quadratic Equation", International Journal of Mathematics and its Applications (IJMAA), Volume 5, Issue: 5, No. 4 - F, 839 – 844, December 2017.
121. On Polynomial Solutions of Quadratic Diophantine Equation", International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Volume 6, Issue 9, 18351 – 18355, September 2017.
122. On The Integer Solutions of the Pell Equation $x^2 = 17y^2 - 19^t$ ", JP Journal of Applied Mathematics, Volume: 15, Issue: 2, 81 – 88,September 2017.
123. On the Positive Integer Solutions for a Diophantine Equation", Journal of Mathematics and Informatics, Volume 10, 173 – 177,December 2017.
124. Construction of A Parametric Family of Diophantine Triples in Integers", Indian Journal in Number Theory , 01 -05, January 2018.
125. On a class of solutions for the hyperbolic Diophantine equation, International Journal of applied Mathematics, Volume 32, No.3, 443-449, January 2019.
126. Solutions in Integers for the Quadratic Diophantine Equation $w^2 - 6z^2 + 8w - 24z - 24 = 0$, International Journal of Scientific & Engineering Research, Volume 10, Issue 12, ISSN 2229-5518.Pp 1734 –1736, December 2019.

127. Lattice Points on the Non Homogeneous Cubic Equations with $x^2 - xy + y^2 + 4w^2 = 8z^3$, International Journal of Research- Granthaalayah, Volume 8, Issue 8 ,ISSN 2394-3629.Pp 135-139, August 2020.
128. Integral solutions of an infinite elliptic cone $x^2 = 9y^2 + 11z^2$, Advances and Applications in Mathematical Sciences , Volume 19, Issue 11, Pages 1113-1118, September 2020.
129. Solutions of Negative Pell Equation Involving Chen Prime , Advances and Applications in Mathematical Sciences , Volume 19, Issue 11, Pages 1089-1095, September 2020.
130. On a class of solutions for a quadratic Diophantine equation, Advances and Applications in Mathematical Sciences ,Volume 19, Issue 11, Pages 1097-1103, September 2020.
131. Exponential Diophantine equation in three unknowns, Advances and Applications in Mathematical Sciences , Volume 20, Issue 5, Pages 815-822, March 2021.
132. Non trivial integral solutions of ternary quadratic Diophantine equation, Advances and Applications in Mathematical Sciences , Volume 20, Issue 5, Pages 815-822, March 2021.
133. On the Gaussian Integer Solutions for an Elliptic Diophantine Equation , Advances and Applications in Mathematical Sciences , Volume 20, Issue 5, Pages 815-822, March 2021.
134. Solution of Pell Equation by Sophie Germain Primes ”Juni Khyat, Volume 11 Issue 3,March 2021,ISSN 2278-4632,Pp 42-45, ,March 2021.
135. Cryptographic Algorithm Based on Prime Assignment, International Journal for Research in Applied Science & Engineering Technology (IJRASET) , Volume 10 Issue I, Jan 2022.
136. Remodeled RSA Algorithm for Messages of Length Two Employing G-Primes, International Journal of Mathematics and Computer Research, Volume 10, Issue 2, Pages 2555-2558, February 2022.
137. Lattice Points for the Quadratic Diophantine Equation 21(x^2+y^2)-19xy=84z^2, International Journal of Innovative Research science, Engineering and Technology(IJIRSET) Volume 11,Issue 5,May2022
138. Solutions of Pell’s Equation Using Eisenstein Primes, Advances and Applications in Mathematical Sciences , Volume 21, Issue 8, Pages 4863-4870,June 2022.
139. Integral Solutions of Quadratic Diophantine Equation with two unknowns $11(\theta^2 + \Omega^2) = 2(12\theta\Omega - 1)$, Research and Reflections on Education ISSN 0974-648X(P) Vol. 20 No. 3A October 2022.
140. Special Dio - triples involving Primes Engineering, Science, and sustainability. Proceeding of the international sustainability conference (CRC Press Taylor& Francis group) page no:173-176, , August 21-22,2022.
141. Encryption Decryption Algorithm Using Solutions of Pell equation, Int. J. Math. And Appl., 10(1), 1–8 , 2022.

Conference / Workshops attended:

Conferences:

1. Ternary cubic Diophantine Equation $(x+1)y^2-xz^2 = x(x+1)$. International Conference on Number theory and modular forms, 20th, 21st and 22nd December 2008, Shanmugha Arts Science Technology and Research Academy, Sastra University, Srinivasa Ramanujan Centre, Kumbakonam - 612 001.
2. Gaussian Pythagorean Triples, UGC sponsored International Conference on Mathematical Methods and Computation, Jamal Mohamed College (Autonomous), Tiruchirappalli , India 24-25, July 2009.
3. Pell's equation and its applications, UGC sponsored National Conference on Advances in Mathematics; Scientific Developments and Engineering Applications, 31st Aug and 1st Sep 2009, held at Dept. of Mathematics. Kunthavai Naachiyar Govt. Arts College for Women (Autonomous), Thanjavur.
4. Integral Solutions of Ternary Quadratic Equation $x^2 - xy + y^2 = z(x + y)$, National Seminar on Graph Theory Algorithms and modelling (under UGC Autonomous Grant) 19th March 2010, Jamal Mohamed College (Autonomous), Tiruchirappalli.
5. Integral Solutions to the Diophantine equation $z^2 = y^2 + Dx^2$, Heber International Conference on Applications of Mathematics and Statistics, organized by P.G and Research Department of Mathematics ,Bishop Heber College,Trichy, 5th-7th June 2012.
6. On cubic diophantine equation with four unknowns $x^3 + y^3 = z^3 + w^2(x + y)$, UGC sponsored International Conference on Mathematical Methods and Computation, Jamal Mohamed College (Autonomous), Tiruchirappalli , India, 13-14, 2014.
7. Organizing committee for the International Conference on Analysis and Number theory , Ayya Nadar Janaki Ammal College,Sivakasi , 27.09.2022 to 29.10.2022.

Workshop Attended

1. Participated in the CSIR, TNSCST, IARCS, and Academy of Higher of Higher Education National College Sponsored "National Instructional Workshop on Graph Algorithms" held during June 03rd - June 07th, 2009.
2. Participated in the "Training Program on Latex" held from September 23-27, 2013, organized by P.G. and Research Department of Mathematics, National College (Autonomous), Trichy
3. Participated in Training Program on LATEX organized by the Department of Mathematics, National College, Trichy during September 14-15,2015.
4. Participated in the International Conference on Recent Trends in Graph Theory and Combinatorics organized by the Department of Mathematics, Cochin University of Science and Technology, Cochin, during 26-29 April 2018.
5. Participated in the Future Scientist programme organised by Vellore Institute of Technology and the Hindu on 13.10.2019

Books Published:

1. Fundamental Perceptions in Contemporary Number theory, Nova Science Publishers ,NY,11788 USA, 2023

Lectures:

1. Resource person for Guest Lecture programme on Introduction to Number Theory organised by Holy Cross College, Trichy on 12.02.2013.
2. Resource person for Guest Lecture programme on Introduction to Number Theory organised by Srimad Andavan Arts and Science College, Trichy on 14.08.2014.
3. Resource person for a guest lecture on Elements of Number Theory organised by Aiman College of Arts and Science for Women, Trichy on 18.08.2015.
4. Resource person for one day workshop for M.Phil Scholars on Technology Assisted Research organized by Career Guidance and Placement Cell,National College,Trichy on 01.10.2016.
5. Acted as Resource person for Guest Lecture programme on Introduction to Gaussian Integers organised by Holy Cross College, Trichy on 20.07.2018
6. Resource person in the National Conference in Pure and Applied Mathematics organised by Dr.Umayal Ramanathan College for Women, Alagappapuram, Karaikudi during 19th and 20th September 2019.

Experience:

- 1 year experience as Lecturer in Mathematics at Pavendar Bharathidasan College of Engineering and Technology from 2002-2003.
- 4 years experience as Lecturer in Mathematics at Cauvery College for Women ,Trichy from 2003-2007.
- Assistant Professor in the Department of Mathematics, National College, Tiruchirappalli-620001 from December 2007 to May 2023
- Associate Professor in the Department of Mathematics, National College, Tiruchirappalli-620001 from June 2023 to till date

Achievements:

- International Xenocrates Distinguished Reader and Researcher Award 2023 in Mathematics
- Editor for the ISBN edited book "Contemporary Research Trends in Mathematics", 2023.

Research:

(i) Ph.D Guided :

<u>Awarded</u>

1. Dr.G.Sangeetha, Integral Solutions for multi degree algebraic equations with multi variables,08.02.2014.
2. Dr.V.Sangeetha, Modish Glimpses on Special Number Patterns and Integer Solutions for Higher Degree Multivariate Diophantine Equations , 20.03.2017.
3. Dr.K.Geetha,Neoteric vistas on special number patterns and integer solutions for Diophantine equation of degree maximum four,19.03.2018.
4. Dr.J.Kannan, A Quest on the integral solutions of Astounding Diophantine equations, 01.12.2018

5. Dr.K.Raja, Integral Solutions of Multi Degree Diophantine Equations and Encryption – Decryption Strategies based on Number Theory, 23.06.2023.

Pursuing - 04

(ii)Sponsored Research: Nil

Membership: (1) Life member of Ramanujan Mathematical Society

(2) Annual member of Vijñāna Parishad of India.

Extension Activities: Nil