Dr. SADASIVUNI ASHOK KUMAR

ASSISTANT PROFESSOR

DEPARTMENT OF MATHEMATICS

💼 GAYATRI VIDYA PARISHAD COLLEGE FOR DEGREE AND P.G COURSES(A), MVP COLONY, VISAKHAPATNAM-17.

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Educational Qualification:

Post Graduation

● **May 2007** M.Sc. Mathematics (2005-2007) from the Department of Mathematics, Andhra University, Visakhapatnam, India.

Under Graduation

● **April 2005** B.Sc. Mathematics (2002-2005) from Andhra University.

Doctoral Details

● **March 2017** Ph.D. in Applied Mathematics (2013-2017) from GITAM University, Visakhapatnam, India.

Doctoral Thesis: A Study of Multiple Encryptions for Symmetric Key Crypto Systems - An Analytic Approach with Implementations

● **May 2012** M. Phil. in Mathematics (2010-2012) from the Department of Mathematics, Andhra University, Visakhapatnam, India.

M. Phil. Dissertation: α-Ideals and Annihilator Ideals in 0-Distributive lattice.

Professional Experience

S.No	Org. Name	Designation	No. Years Exp	From to from
1	S.V.L.N.S Govt. Degree College, Bheemunipatnam	Lecturer	03	Jun 2007 - Mar 2010
2	Presidency Degree College	Lecturer	02	Jun 2010-May 2012

3	Prism Degree and P.G. College	Lecturer	03	Jun 2012- July 2015
4	G.V.P.Degree College(Autonomous)	Assistant Professor in Mathematics		01-08-2015 to till date

Academic Guidance

S.No	Name of Research Scholar	Status	University
1	Balaramu Nasa	Pursuing	ANDHRA UNIVERSITY
2	G.Ashok	Pursuing	ANDHRA UNIVERSITY
3	D.Triveni	Pursuing	ANDHRA UNIVERSITY
4	Anil Kumar Akkenni	Pursuing	ANDHRA UNIVERSITY

Journal Publications

1. A.Chandra Sekhar, V. Anusha, B. Ravi Kumar & **S. Ashok Kumar** (2015) linearly ndependent spanning sets and linear transformations for Multi-level Encryption, Journal of Information and Optimization Sciences,Volume 36, Issue 4, July 2015, pages 385-392.

2. A.Chandra Sekhar, D. Chaya Kumari, **S.Ashok Kumar** "Symmetric Key Cryptosystem for Multiple Encryptions", *International Journal of Mathematics Trends and Technology (IJMTT).* V29(2):140-144 January 2016. ISSN:2231-5373. **Impact factor 0.764**

3. A.Chandra Sekhar, D. Chaya Kumari, Ch.Pragathi, **S. Ashok Kumar** "Multiple Encryption of Independent Ciphers" International Journal of Mathematical Archive (IJMA) –V 7(2), 2016, 103-110. **Impact factor 7.543**

4. A.Chandra Sekhar, Ch.Pragathi, B.Ravi Kumar, **S. Ashok Kumar** "Multiple Encryption of Various Ciphers" International Journal of Engineering Science Invention Research & Development; Vol. II Issue VIII February 2016. **Impact factor 2.964**

5. A.Chandra Sekhar, Ch.Pragathi, **S. Ashok Kumar** "Triple Encryption scheme using two Independent keys". International Journal of Engineering Science and Technology (IJEST)Vol8. No 4 April 2016 ISSN: 0975-5462. **Impact factor 0.195**

6. A.Chandra Sekhar, D. Chaya Kumari, Ch.Pragathi, **S. Ashok Kumar** "Multiple Encryptions of Fibonacci Lucas transformations" International Organization of Scientific Research (IOST)e-ISSN: 2278-5728,. Volume 12, Issue 2 Ver. II (Mar. - Apr. 2016), PP 66-72.

7. A.Chandra Sekhar, Ch. Pragathi, **S. Ashok Kumar** "Triple Encryption of Multiple keys for Symmetric key cryptosystems". International Journal of Development Research (IJDR)Vol. 6, Issue, 03, pp. 7079-7089, March, 2016. **Impact factor 4.753**

8. Dr.D.Chaya Kumari **Dr.S.Ashok Kumar** "Redei rational functions as permutation functioned an algorithm to compute Redei rational functions". International Journal of Engineering, Science and Mathematics Vol.8 ,Issue 2, February2019, ISSN: 2320-0294.**Scopus ID:3D9ED96C3EFA9FBD**

9. Ravi Kumar Bora , **Ashok Kumar S**, Kishore Kumar L, Surendra N "A Study of Elgamal Encryption Scheme of Elliptic Curves Using Golden Matrices" BULLETIN MONUMENTAL - ISSN / e-ISSN 0007-473X Volume 21 : Issue 07 – 2020. **Impact factor 3.9 Web Scopus journal**

10.Ravi Kumar Bora , **Ashok Kumar S**, Kishore Kumar L, Surendra N "A SECURE DIFFIE-HELLMAN ENCRYPTION SCHEME OVER ELLIPTIC CURVES USING GOLDEN MATRICES" Advances in Mathematics: Scientific Journal 9 (2020), no.7, 5217–

11.Dr.Ashok Kumar S, Dr.D.Chaya Kumari, G.Ashok ,A type of public cryptosystem using polynomials and pell sequences, Journal of Discrete Mathematical Sciences and Cryptography, 25(7), 1951-1963, 2022.

12.Dr.Ashok Kumar S, Dr.D.Chaya Kumari, G.Ashok , An Approach of Cryptosystem using Polynomials and Lucas Numbers, Journal of Harbin Engineering University, 44(8), 25-31,2023

13.Dr.Ashok Kumar S, Dr.D.Chaya Kumari, D.Triveni, Super-Encryption with Pell-Lucas Matrices and Graphs via Laplace Transformations, Journal of Harbin Engineering University, 44(8), 975-980,2023.

14.MPR Murthy ,CH Suneetha, D Sravana Kumar, MPR Murthy & S Ashok Kumar, Symmetric Encryption Technique Using Spanning Tree of a Graph, Journal of optoelectronics laser, 41(9), 388-395,2022.

15.Dr.Ashok Kumar S, Dr.D.Chaya Kumari, D.Triveni, RSA Type Cryptosystem using Vieta-Pell-Lucas Polynomials, National Conference on Design Thinking: Trans-Disciplinary Challenges & Opportunities, 978-93-5915-756-6, 2023

16.Dr.Ashok Kumar S, Dr.D.Chaya Kumari, G.Ashok , Superencryption Technique of Graphs via Matricial Approach, National Conference on Design Thinking: Trans-Disciplinary Challenges & Opportunities, 978-93-5915-756-6, 2023

17.Dr.Ashok Kumar S, Dr.D.Chaya Kumari, G.Ashok , A new frontier in information security : Polynomial-Fibonacci hybrid, Journal of Discrete Mathematical Sciences &

Cryptography,ISSN 0972-0529 (Print), ISSN 2169-0065 (Online),Vol. 27 (2024), No. 4, pp. 1185–1194,DOI : 10.47974/JDMSC-1973

18.Dr.Ashok Kumar S, Dr.D.Chaya Kumari, D.Triveni, Super-encryption technique of graphs via matricial approach Journal of Discrete Mathematical Sciences & Cryptography,ISSN 0972-0529 (Print), ISSN 2169-0065 (Online),Vol. 27 (2024), No. 4, pp. 1215–1222,DOI : 10.47974/JDMSC-1976

Seminars attended / organized :

S.no	Name of the Seminar	Date	Role (Organized / Participation)
1	One-Day Regional Workshop on Effective Teaching Methods-Towards Quality Improvement	Nov 2009	Participated
2	Andhra University Academic Exhibition – 2011.	Dec 2011	Organized and Participated
3	125th Birth Day celebrations of sri Srinivasa Ramanujan	Dec 2012	Organized and Participated
4	One day Mathematical work shop on Latex software and Matlab Programming	July 2013	Participated
5	International Conference on Recent Advances In Mathematical Science and Applications (RAMSA 2013)	Mar 2013	Participated
6	National Seminar on Emerging Trends in Applied Mathematics (NSETAM _2014, 4th-5th April, 2014)	4th-5th April, 2014	Participated
7	International Conference on Algebra and Applications-2014	May-2014	Organized and Participated

8	127th Birth Day celebrations of sri Srinivasa Ramanujan	Dec 2014	Organized and Participated
9	Teachers Enrichment Workshop on Analysis and Algebra	Jan 2019	Participated
10	Pedestrian Crowd Dynamic Models – Using Social and Behavioral Forces	March 2019	Participated
11	Two-day workshop On INTELLECTUAL PROPERTY RIGHTS Patents Inventions: Procedure, Practice and Protection Organized 13th -14th March 2019 by Gayatri Vidya Parishad College for Degree and PG Courses (Autonomous)	13th -14th March 2019	Organized
12	Impact of Covid-19 on environment on 5th June,2020 on the occasion of world environmental day organized by Gayatri Vidya Parishad college for Degree and PG Courses(A),Visakhapatnam	5th June 2020	Participation
13	Two Day National webinar on Applications of Mathematical Science in Real Life(AMSIR) Organized by Department of Mathematics & Statistics and IQAC	13th and 14th June	Participation
14	Recent Advances in Mathematics & Covid-19 organized by the Department of Mathematics and statistics & IQAC, St.Joseph's College for women(A) Visakhapatnam	15th & 16th June 2020	Participation
15	The webinar on Recent Development in Mathematics and its application organized by	20th June	Participation

	GITAM institute of science and Directorate of research and Department of Mathematics		
16	Two day international webinar on Analytical approach of Mathematics and its allied areas organized by the department of mathematics & statistics IQAC Mrs.AVN College Visakhapatnam	3rd &4th July 2020	Participation
17	National Level webinar on Exploration of Physical Science and Engineering with Mathematica organized by Gayatri Vidya Parishad college for Degree and PG Courses(A),Visakhapatnam	6th July 2020	Participation
18	A Two Day National level E-Workshop on Understanding OBS Studio & Streamyard for E-content Creation and Live Streaming organized by the faculty of science Adayalampattu phace-II Dr.M.G.R. Educational and research institute	10th & 11th July 2020	Participation
19	National webinar on Mathematical Applications of Cryptography organized by Department of Mathematics,GIS,GITAM	9th August 2020	Participation
20	A Two day National E-Seminar on Fuzzy set theory and its Applications (FSTA-2020) organised by department of mathematics GITAM institute of science Visakhapatnam	22nd and 23rd December 2020	Participation
21	Trends in Modelling and Computation organized in connection with the 97th birth anniversary of Prof V Lakshmikantham held at Gayatri Vidya Parishad college of Engineering (Autonomous),Visakhapatnam	16th – 17th March, 2021.	Participation

22	One day National webinar on Applications of mathematical sciences organized by the department of mathematics and statistics st.joseph's college for women(A) Visakhapatnam	29th June	Participation
23	One day international webinar on Recent Advances in statistics (RAS-2021) organised by department of mathematics GITAM institute of science Visakhapatnam	29th June	Participation
24	Multiple Integrals conducted by department of mathematics, St.Ann's College for women, Malkapuram, Visakhapatnam	26th June	Participation
25	Intellectual Property Protection and Innovation Management for Competitiveness of academia and Industries on 4th & 5th October,2021 Gayatri Vidya Parishad college for Degree and PG Courses(A),Visakhapatnam	4th & 5th October, 2021	Participation
26	International Conference on Recent Advances in Nonlinear Functional Analysis and its applications-2022(ICRANFAA-2022), held during 29th and 30th January,2022,Organised by the Department of Mathematics, Andhra University, Visakhapatnam	29th and 30th January,2 022	Participation
27	International Conference on Recent Trends in Theoretical and Computational Mathematics (Virtual Mode), organized by Department of Mathematics, PSGR Krishnammal,College for Women, Coimbatore.	24th & 25th February 2022.	Participation

FDP attended / organized

S.no	Name of the FDP	Date	Role (Organized / Participation)
1	FDP in the Pure and Applied mathematics organized by the PG & Research Department of mathematics(Under DBT Star college scheme) Jamal Mohamed College(A),Tiruchirappalli	11th to 17th June 2020	Participation
2	International FDP on Importance of Mathematics in Science and Technology organized by mathematics division of department of basic science and Humanities GMR institute of Technology Rajam	25th to 29th June 2020	Participation
3	A One week online International FDP on Recent Advance in Mathematics & Statistics organized by GITAM institute of science and Directorate of research and Department of Mathematics	3rd to 8th August 2020	Participation
4	online Faculty Development Program (FDP) on **"Recent trends in PDEs: Theory & Computations"** organized by the Department of Mathematics, School of Sciences, NIT Andhra Pradesh during November 2-6, 2020.	November 2-6, 2020	Participation
5	One-Week Online Faculty Development Program on Recent research developments in Mathematics, Statistics and their applications, organized by Mathematics Division, Department of Basic Sciences & Humanities, GMR Institute of Technology, Rajam, Andhra Pradesh, India.	20th to 26th, May 2021	Participation

6	Six Day FDP on "Effective Teaching Learning Paradigms through Pedagogical Innovations" Organized by Department of Mathematics, School of Science and Humanities, Sathyabama Institute of Science and Technology, Chennai	07th - 12th February, 2022	Participation
7	5 Day National Level Faculty Development Programme on "Recent Trends in Mathematics" Organized by Department of Mathematics Department of Mathematics & Statistics (Under DBT - Star College Scheme) BHAVAN'S VIVEKANANDA COLLEGE OF SCIENCE, HUMANITIES & COMMERCE S a i n i k p u r i , S e c u n d e r a b a d	14th to 18th February, 2022	Participation
8	5- Day Online Faculty,Development Programme on "Green Technologies towards Sustainable Future GTTSF-2022" (08th – 12th March 2022) Jointly Organized by Department of Chemical,Engineering, GMR Institute of Technology, Rajam, Srikakulam, Andhra Pradesh, and National,Institute of Technology-Warangal, Telangana, India	08th – 12th March 2022	Participation
9	one-week online collaborative Faculty Development Program on "Role of Basic Sciences in Emerging Technologies (RBSET-2022)" organized jointly by National Institute of Technology Mizoram & GMR Institute of Technology, Rajam, Andhra Pradesh from 09th – 14th March, 2022.	09th – 14th March, 2022	Participation
10	one week online Faculty Development Programme on "MATHEMATICS FOR A BETTER WORLD" held during 21st - 26th March, 2022.	21st - 26th March, 2022	Participation

11	five day online Faculty Development Program on "Applications of Mathematics in Applied Sciences and Engineering" jointly organized by GMR Institute of Technology-Rajam & National Institute of Technology-Warangal from 30th January - 03rd February, 2023.	30th January -03rd February, 2023.	Participation
12	Faculty Development Programme (FDP) on "Introduction to Indian Knowledge Systems (IKS) incorporating Traditional Knowledge (TK) and Intellectual Property Rights (IPR)." Bharat Vidya Prayojana (BVP),Indira Gandhi National Centre for the Arts,Ministry of Culture, Govt. of India, Janpath, New Delhi	11th to 15th March 2024	Participation
13	"International Faculty Development Programme on Applied Mathematics in Engineering and Technology" from 20th March 2024 to 27th March 2024,organized by the Department of Mathematics, SRM TRP Engineering College, Tiruchirappalli, Tamilnadu, India.	20th March 2024 to 27th March 2024	Participation
14	10 Days short term training program on " Machine Learning using python" organized by Appleton Innovations in association with Department of Computer Science and Engineering at Gayatri Vidya Parishad College for Degree and P.G Courses(A), Visakhaptanam.	1st May to 11th May 2024	Participation

Guest lecturers/ invited lecturers:

S.no	Name of the Seminar	Date	Organizer
1	One day Mathematical work shop on Latex software and Matlab Programming	July 2013	Govt. Degree College, Narsipatnam
2	Recent applications in cryptography and network security	Jan 2016	Dr.L.B. College Visakhapatnam
3	131th Birth Day celebrations of sri Srinivasa Ramanujan	Dec 2018	SAMATHA Degree College
4	131th Birth Day celebrations of sri Srinivasa Ramanujan	Dec 2018	Dr.V.S.K.Govt Degree College

Personal Details:

Name   :   SADASIVUNI ASHOK KUMAR

Father's Name   :   MURALI MOHAN RAO

Gender   :   Male

Date of Birth   :   20-05-1984

Languages known   :   Telugu, English

Hobbies   :   playing cricket, listening music

Religion   :   Hindu

Nationality   :   Indian

Marital Status   :   Married

Permanent Address   :   Sadasivuni Ashok Kumar,

                             S/o S.Murali Mohana Rao,

                             Do.No:9-6-75/2/8, Sivajipalem,

                             Visakhapatnam, India.

                                                    (S. ASHOK KUMAR)