

**Name:** Dr.M.Girija

**Designation:** Assistant Professor

**Department:** Computer Science

**Date of Joining:** 24.9.2009

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**Educational Qualification:**

Degree	Subject	College / University & Place	Year Completed
Ph.D	Computer Application	Madurai Kamaraj University	2022
SET	Computer Application	Bharathiar University	2012
M.Phil	Computer Science	Madurai Kamaraj University	2007
MCA	Computer Application	Madurai Kamaraj University	2002
PGDCA	Computer Application	Lady Doak College, Madurai	1998
B.Sc	Mathematics	Sri Meenakshi College Madurai.	1996

**Specialisation in Teaching:**

Operating Systems, RDBMS, Java, C, C++, Data structure, Web technology, Mobile Technologies, Data mining. Enterprise Resource Planning, .Net, Business Intelligence Systems, Computer Network, Software Engineering, Python, Cryptography and Network Security

**Specialisation in Research:** Cryptography, Internet of Things

**Research Interests:** IoT, Network Security, Lightweight Cryptography

**Research Highlights**

Number of Patents Filed	–	01
Number of articles in SCI Journal	–	04
Number of articles in Scopus Journals	–	02
Number of articles in other Journals	–	03
Number of articles in National/International Conferences	–	11
Board of Studies Member (BoS)	–	01

**Google Scholar:**

Citations – 204  
h-index – 04  
i10-index – 02

**Patent Details:**

Application No.202241027248 A

Date of filing of Application : 11/05/2022

Publication Date: 17/06/2022

Title of the invention: An Embedded Prime LightWeight Block Cipher for Smart Devices

**Other Work Experience:**

<b>Designation</b>	<b>Institution / Company</b>	<b>Year - From (month/year) To (month/year)</b>
Assistant Professor	The American College	From Sep2009 to Till date
Lecturer	Sourashtra College	From July 2007 to Sep 2009
Guest Lecturer	Madurai Kamaraj University	From July 2005 to May 2007

**Administrative /Academic Position/s (held/currently holding):**

<b>Positions held / currently holding</b>	<b>Year - From (month/year) To month/year)</b>
<b>Department Level:</b>	
NAAC Working Committee (Member)	July 2012 – Till date
Library Committee(Member)	July 2014- Till date
Admission Work (Member)	July 2012 – Till date

**Articles Published in International Journals:**

<b>S.No</b>	<b>Paper Title</b>	<b>Name of the Journal</b>	<b>Volume &amp; Date</b>
1	Empowering Cybersecurity Using Enhanced Rat Swarm Optimization With Deep Stack-Based Ensemble Learning Approach	IEEE Access	April 2024
2	Billiard based optimization with deep learning driven anomaly detection in internet of things assisted sustainable smart cities	Alexandria Journal of Engineering	Vol.83,15-Nov-2023
3	FibGeoPresent: A Highly secured and geographic coordinate system based	Wireless Personal Communications, Springer <b>(SCI Indexed Journal)</b>	August 2021

	authenticated Lightweight Block Cipher for Smart System		
4	PriPresent:An embedded prime LightWeight block cipher for smart devices	Peer-to-Peer Networking and Applications, Springer. <b>(SCI Indexed Journal)</b>	Volume 13 Issue 5, September 2020
5	DIBPresent: a Dynamic Integer Based Lightweight Cryptography for Resource Constrained Devices	International Journal of Advanced Science and Technology <b>(Indexed by Scopus)</b>	Vol. 29 No. 8s, 2020 , ISSN :2005-4238
6	Comprehensive Analysis on Lightweight Cryptographic Algorithms for Low Resource Devices	TEST Engineering & Management <b>(Indexed by Scopus)</b>	November- December 2019 ISSN: 0193-4120 pp. 3747 - 3760
7	Routing schemes and protocols for internet of things: A review	International Journal of Theoretical Applied Sciences ISSN:2249-3247	Vol10(1) January- June 2018.
8.	Investigation of Fuzzy logic based energy efficient routing protocol in MANET	International Journal of Applied Engineering Research(IJAER), ISSN 0973-4562(Online) <b>(Indexed by Scopus)</b>	Volume:3 PP 23274-23278 May 2015
9	Performance Comparisons of Routing Protocols in Mobile Ad Hoc Networks	International Journal of Wireless and Mobile Networks <b>(IJWMN)</b> , ISSN:0975-3834 (Online), 0975-4679(Print).	Volume: 3, Number 1, PP 98-106. February 2011

**Conference/Seminar Presentations:  
Publications in Conferences :( International)**

S.No	Paper Title	Name of the Conference	Place & Date
1	Data Science in Cyber Security: A Comprehensive Analysis of Machine Learning Techniques to Address Cyber Attacks	ICDT2023	The American college, April 19-20, 2023
2	An Empirical Analysis on Impacts of Lightweight Cryptographic Algorithms in Different Smart Devices	ICAIT2021	Hindustan college of arts and science, 29th Sep 2021
3	Industry4.0 : Data security challenges and Future research directions	ICDT2020`	The American college, Mar 5-6, 2020
4	Comprehensive approach in studying the behavior of Contiki RPL protocol in diverse data transmission	International conference on computer networks and informatics,	Gandhigram rural institute deemed to be university, Mar-22,2018.

5	Investigation of Fuzzy logic based Energy efficient routing protocol in MANET	Hi-Tech Trends in Emerging Computational Technologies, 2015	Sethu Institute of Technology, Madurai. 8 <sup>th</sup> Apr 2015
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#### Publications in Conferences :( National)

S.No	Paper Title	Name of the Conference	Place & Date
1.	Enhancing the Quality of Academics and Research in HEIs	Internal Quality Assurance Cell	The American College, 28 <sup>th</sup> jan 2025
2.	Resource constrained devices using lightweight cryptography	PRIME2019	Periyar University, March 21 <sup>st</sup> and 22 <sup>nd</sup> 2019
3.	Energy efficient and Secure Communication in Mobile Ad Hoc Networks	NCINM 2011	Thiagarajar college of Engineering, Madurai. 17 <sup>th</sup> and 18 <sup>th</sup> March 2011
4.	Security Perspectiveness on Mobile Ad hoc Network Routing protocols	NCETST 2011	Arul Anandar College, Madurai. 10 <sup>th</sup> and 11 <sup>th</sup> March 2011
5.	Performance Evaluation of group mobility schemes in MANET	NCRTSC 2010	Thiagarajar School of Management, Madurai. 27 <sup>th</sup> Feb. 2010
6.	Virtual Organization	NCEPM 2008	The American College, Madurai. 15 <sup>th</sup> March 2008
7.	High Performance Computing for Financial Institutions	RTAC 2008	Thiagarajar School of Management, Madurai. 17 <sup>th</sup> April 2018

#### Workshops attended:

S.No	Topic	Place	Date
1	Data science and Big data	Arul Anandar college	10 <sup>th</sup> january 2020
2	Artificial intelligence and machine learning	Fatima college	26 <sup>th</sup> sep 2019
3	Artificial intelligence and future of IT in machine learning Age	Sri meenakshiGovtArs college	1 <sup>st</sup> April 2019
4.	Research initiation to publication	Kalasalingam academy of Research and Education	August 2018
5.	Practical python	Thiagarajar college of Engineering	sep 3 <sup>rd</sup> to 9 <sup>th</sup> 2017
6.	Hands on Training Hadoop	Thiagarajar college of Engineering	15 <sup>th</sup> and 16 <sup>th</sup> July 2016
7	Network Simulation using NS3	Thiagarajar college of Engineering	7 <sup>th</sup> and 8 <sup>th</sup> August 2015
8	MATLAB	Fatima college	21 <sup>st</sup> January 2015
9.	Quality circle in education	The American college	16 <sup>th</sup> July 2014
10.	IBM Rational tools	K.L.N college of	26 <sup>th</sup> to 29 <sup>th</sup> December

		Engineering	2007
11	Quality Excellence and Quality sustenance in Education	Sourashtra College	21 <sup>st</sup> August 2009
12	Business Intelligence	Fatima College	14 <sup>th</sup> February 2009
13.	Women run ICT Enterprises	Park plaza	17 <sup>th</sup> November 2006
14	Social Responsibilities of Business	CED campus	27 <sup>th</sup> October 2006

### FDP Attended

S.no	Topic	Place	Date
1	The Joy of Computing Using Python	NPTEL-AICTE Faculty Development Programme	July to October 2024
2	Introduction to Internet of Things	NPTEL-AICTE Faculty Development Programme	Jan to April 2024
3	AI for Educators	International virtual FDP organized by Department of Software Engineering, Periyar Maniammai Institute of Science and Technology	18.3.2024 to 23.3.2024
4	Deep Dive into Artificial Intelligence and Machine Learning	International virtual FDP organized by Department of Artificial Intelligence and Data Science, Coimbatore Institute of Technology, Coimbatore	8.1.2024 to 12.1.2024
5	Advanced Technologies and Trends in Computing	International virtual FDP organized by Department of Computer Science and BCA , Mangayakarasi College of Arts and Science for Women	24.7.2023 to 28.7.2023
6	Recent Trends on Research Methodologies Tools and Techniques	International virtual FDP organized by Department of Information technology by K.G College of Arts and Science, Coimbatore	10.7.2023 to 15.7.2023
7	Exploring augmented reality/virtual reality using unity tool	Sairam institute of technology	11.7.2022 to 15.7.2022
8	The new normalcy:psychological approaches into the teaching learning process	Psg college of arts and science	11.6.2022 to 16.6.2022
9	Enhancing quality by unearthing innovative practices equip 2022	Mannar college	18.4.2022 to 24.2022

10	Pedagogical transition in higher education- a paradigm shift	Sri aurobinda college	18.4.2022 to 23.4.2022
11	Advancements in security using deep learning	G.m.r institute of technology	21.3.2022 to 25.3.2022
12	AutoML	Lady doak college	4.3.2022
13	Recent trends in computational technologies	Ashoka institute of engineering and technology	13.7.2020 to 18.7.2020
14	Machine learning using python	Hyderabad institute of technology and management	6.7.2020 to 11.7.2020
15	Deep dive into emerging technologies like cloud, AI,ML and data analysis	Vaageswari college of engineering	22.6.2020 to 26.6.2020
16	Bitcoin and cryptocurrency in blockchain technology	Panimalar institute of technology	20.6.2020 to 21.6.2020

### Webinar attended

S.No	Topic	Place	Date
1	Webinar on Data Privacy	Bharathi Didnapeetha institute of computer applications and management	10.9.2022
2	Intellectual Property Rights and Smart Ways for Writing a Successful Research Grant Proposal	Karpagam college for engineering	9.12.2021 to 10.12.2021
3	FUTURE TRENDS IN PYTHON PROGRAMMING	Madonna Arts and Science college for women	22.10.2021
4	Data Driven Technologies	Jeyaraj Annapackiam college for women	6.9.2021
5	E learning tools	The American college	16.5.2020 &17.5.2020
6	Software project management using artificial intelligence	The American college	14.5.2020 &15.5.2020
7	An approach to prevent from network attacks	N.G.P institute of technology	25.5.2020 to 26.5.2020
8	Industrial applications of data structure	Velammal engineering college	26.5.2020
9	User experience design and user interactive design	Kalasalingam university	25.5.2020 to 31.5.2020

10	Open access resources for effective teaching, learning and research	Mangayakarasi college	1.6.2020
11	The big3 : applications and research perspective	G.t.n arts college	3.6.2020
12	Power of data science and visualization	Velammal engineering college	5.6.2020
13	Role of iqac in maintaining quality standards in higher education	Government arts college for women	11.6.2020
14	Cyber security trends in 2020 and beyond	The American college	13.6.2020
15	Technology towards internet of things – present and future	Panimalar institute of technology	14.6.2020
16	Defining research problem in research methodology	Panimalar institute of technoloty	17.6.2020
17	Tools for video preparation in e content development	Sri meenakshi college	18.6.2020
18	Digital forensics and wireshark	Presidency college	19.6.2020
19	Bitcoin and cryptocurrency in block chain technology	Panimalar institute of technoloty	20.6.2020& 21.6.2020
20	Deep dive into emerging technologies like cloud, ai,ml,data analysis	Vaageswari college of engineering	22.6.2020 to 26.6.2020
21	Cyper security	Lekky reddy bali reddy college of engineering	26.6.2020 to 30.6.2020
22	Art of writing research articles and journal selection	Madurai sivakasi nadir pioneer meenakshi womens college	27.6.2020
23	REVOLUTIONARY WAVE OF iot	Panimalar Institute Of Technoloty	29.6.2020
24	Artificial intelligence and data science	Annamacharya institute of technology and sciences	1.7.2020 to 3.7.2020
25	Hyderabad Institute of Technology and Management	Machine learning using python	6.7.2020 to 11.7.2020
26	Recent trends in digital technologies	The American college	7.7.2020 to 11.7.2020
27	Cyber security and data protection	Mangayakarasi Engineering college	13.7.2020
28	Data science- a tool for informed decision making	Mohamed sathak college of engineering	14.7.2020
29	Conceptual view of machine learning and deep learning	Madurai Kamaraj University	13.7.2020 to 14.7.2020
30	Recent Trends in Computational Technologies	Ashoka institute of engineering and technology	13.7.2020 to 18.7.2020
31	Ethical hacking and Data protection	Bhabha university	20.7.2020
32	Data Driven Technologies	Jeyarajannapackiam college for women	6.9.2021
33	FUTURE TRENDS IN PYTHON PROGRAMMING	Madonna college of arts and science for women	22.10.201
34	Intellectual Property Rights and Smart Ways for Writing a Successful Research Grant Proposal	Karpagam college of Engineering	9.12.2021 to 10.12.2021

**Seminars attended:**

<b>S.No</b>	<b>Topic</b>	<b>Place</b>	<b>Date</b>
1.	Research Issues and Challenges in Information & Communication Engineering	Anna University (Trichy) & KLN College of IT	25 <sup>th</sup> Feb-26 <sup>th</sup> Feb. 2010
2.	IT Services	Fatima College, Madurai.	26 <sup>th</sup> February 2009

**Academic Credentials:**

- Reviewer in SCI Indexed Journal
- BoS Member – GTN Arts & Science College, Dindigul
- Resource Person - Sourashtra College, SVN College.
- Online Certification Courses Completed | SWAYAM – NPTEL  
12 -Weeks Course on “Introduction to Internet of Things (Jan-Apr 2024).  
12-Weeks Course on “The Joy of Computing Using Python” (July-October 2024).
- Question Setter -Sourashtra College, Mannar Tirumalai Naicker College, Yadava College
- Additional Examiner –MKUniversity, Sourashtra College, Mannar Tirumalai Naicker College, Madura College
- External Examiner- Fatima College, Thiagarajar College, Sourashtra College, Mannar Tirumalai Naicker College, Yadava College, Madura College