



Dr. Saju M I

Head of the Department in Basic Sciences and Humanities

Education Summary

Doctoral work(PhD): *University of Calicut (2018)*

Post-Graduation: B.Ed in Mathematics (1994)

Gandhi University

MSc in Mathematics (1992)
University of Calicut

Graduation: **BSc in Mathematics (1990)**
University of Calicut

Employment History

Teaching and Research

- Professor (Level 14), St. Thomas College, Thrissur (2 months)
- Associate Professor (Level 13A), St. Thomas College, Thrissur (3 years)
- Assistant Professor (Level 12), St. Thomas College, Thrissur (3 years)
- Assistant Professor (Level 11), St. Thomas College, Thrissur (5 years)
- Assistant Professor (Level 10), St. Thomas College, Thrissur (6 years)
- HSST, St. Antony's HSS, Mala (8 years)
- HSA, St. George's HSS, Pariyaram (4 months)
- HAS, Holy Cross HSS, Mapranam (2 months)
- LPSA, IJLPS, Puthenveli (1 year, 3 months)
- HAS, GHSS, Desamangalam (10 months)

Journal/Papers Published

- A novel public key cryptosystem considering elliptic curve principles, Jincy Pauly, Saju M I, Renjith Varghese, Antony John E F, Journal, Journal of Discrete Mathematical Sciences & Cryptography, International, 29, 25-01-2026, 343-348, Taru Publications , ISSN 0972-0529 (Print), ISSN 2169-0065 (Online)
- Design of public key cryptosystem based on the underlying mathematical complexity , Jincy Pauly, Saju M I, Renjith Varghese, Antony John E F, Journal , Journal of Discrete Mathematical Sciences & Cryptography , International , 28 , 20-11-2025, 973-979 , Taru Publications , ISSN 0972-0529 (Print), ISSN 2169-0065 (Online)
- A NEW DLP-BASED AUTHENTICATION ALGORITHM FOR PUBLIC KEY CRYPTOSYSTEMS, Jincy Pauly, Saju M I, Antony John E F and Renjith Varghese , International Journal of Advanced Research , International , 12 , 30-11-2024 , 566-569 , 2320-5407

- PRIMITIVE-POLYNOMIAL-BASED SECURE CRYPTOSYSTEM UNDER THE DIFFICULTY OF DLP, SAJU M I, JINCY PAULY, ANTONY JOHN E F AND RENJITH VARGHESE, Calcutta Mathematical Society, International, 116, 06-07-2024, 333-340
- A design of public key Cryptosystem in an algebraic extension field over a finite field using the DLP, SAJU M I, RENJITH VARGHESE, ANTONY JOHN E F, Journal, Malaya Journal of Matematik, International, 8, 06-03-2020, 459-463, <https://doi.org/10.26637/MJM0802/0022>, ISSN(P):2319 - 3786 SSN(O):2321-5666
- The Role of Primitive Polynomials in the Construction of Public Key Cryptosystems, Saju M.I., LILLY P L, Journal, Journal of Theoretical Physics and Cryptography, International, Volume 11, 31-10-2017, Page No.1-4, www.ijtpc.org, ISSN 2322-3138
- Design of a Discrete Logarithmic Problem Based Exchange Public Key Cryptosystem in the Finite Algeb, SAJU M I, LILLY P L, Journal, International Journal of Engineering Science Invention, International, 6, 30-09-2017, 50-53, www.ijesi.org, 2319-6734
- Exchange Message Cryptosystem Based on Discrete Logarithm Problem Over the Extension Field F_{p^n} of, Saju M.I., LILLY P L, Journal, Journal of Theoretical Physics and Cryptography, International, Volume 14, 01-06-2017, Page No.8-11, www.ijtpc.org, ISSN 2322-3138
- A Digital Signature and a New Public Key Cryptosystem Based on Discrete Logarithm Problem Over Finit, SAJU M I, LILLY P L, Journal, International Organization of Science and Research Journal of Mathematics, International, 11, 01-10-2015, 32-35, www.iosrjournals.org, 2278-5728
- A Method of Designing Block Cipher which Involves a Key Bunch Matrix with Polynomial Entries over F_p , SAJU M I, LILLY P L, Journal, International Organization of Science and Research Journal of Mathematics, International, 11, 31-03-2015, 01-04, www.iosrjournals.org, 2278-5728
- Application of function fields in a public key Cryptosystem, SAJU M I, LILLY P L, Journal, Journal of Theoretical and Computational Mathematics, International, 1, 30-03-2015, 52-55, grouperexcelindia.com/stjosephs, 2395-6607
- A Public Key Cryptosystem Based on Discrete Logarithm Problem over Finite Fields F_{p^n} , SAJU M I, LILLY P L, Journal, International Organization of Science and Research Journal of Mathematics, International, 11, 01-02-2015, 01-03, www.iosrjournals.org, 2278-5728
- A Method of Designing a Public Key Cryptosystem Based on Discrete Logarithm problem, Lilly P L, Saju M.I., Journal, International Research Journal of Pure Algebra, International, 4, 25-11-2014, 628-630, www.rjpa.info, 2248-9037

Achievements

- Qualified SET
- Qualified NET
- **PhD Details**

S.N.	Title of Thesis	Date of Qualifying PhD	University / Institution	Date of Guideship
1.	Algebraic Extension Fields over Finite Fields and Their Applications to Cryptography	24-01-2018	UNIVERSITY OF CALICUT	20-05-2021

- **Paper Presentations**

- A DESIGN OF A PUBLIC KEY CRYPTOSYSTEM BASED ON DISCRETE LOGARITHM PROBLEM OVER THE FUNCTION FIELD F_p , Emerging trends in Applied Mathematics and Computer Science, International, PG Department of Computer Science and the research and PG Department of Mathematics, St. Thomas' C, 13-12-2016, St.Thomas' College, Thrissur.

- **Participations (Seminar/Conferences/ Workshop)**

- Orientation programme for implementation of Four year UG programme , Seminar, KSHEC, Thiruvananthapuram , 08-11-2023 , St.Thomas College, Thrissur
- Introduction to securities and markets , Seminar , NSE, SEBI, NEDL , Intra-Collegiate , 14-07-2023 , St. Thomas College, Thrissur
- Changing Scenario of Indian Higher Education as Envisaged in NEP , Orientation Program , IQAC St. Thomas College, Thrissur , 01-06-2023 , St. Thomas College, Thrissur
- IWAC 2023 , Conference, Department of Mathematics, St.Thomas College, Thrissur National , 23-05-2023 , St.Thomas College, Thrissur
- National Seminar on Interdisciplinary Research Approaches , Seminar , Research council of St. Thomas College, Thrissur , National , 18-02-2022 , St. Thomas College, Thrissur
- ONE-DAY IQAC ONLINE SYMPOSIUM ON NAAC ACCREDITATION PROCESS, Symposium, Loyola College of Social Sciences (LCSS), Thiruvananthapuram, 24-06-2021
- Research, Consultancy and Startup: How to go about it? , Webinar , IQAC, Research council St. Thomas College, Thrissur , 16-06-2021 , St. Thomas College, Thrissur
- Promotion under CAS-UGC guidelines, Webinar , IQAC, Carmel College, Mala , 19-09-2020 , Carmel College, Mala
- Higher education: Power, People and democracy day 4, Webinar , KPCTA , 29-08-2020 , Thiruvananthapuram
- Higher education: Power, People and democracy day 3, Webinar , KPCTA , 28-08-2020 , Thiruvananthapuram
- Higher Education: Power, people and democracy day 2, Webinar , KPCTA , 23-08-2020 , Thiruvananthapuram
- Higher Education: Power, people and democracy , Webinar , Kerala Private College Teachers Association , 22-08-2020 , Thiruvananthapuram
- National Education Policy (NEP): Intent, Implementation and Impact, Webinar , IQAC St.Thomas College, Thrissur , National , 18-08-2020 , St.Thomas College, Thrissur
- Use of OBS for recording your screen , Webinar , IQAC, K K T M COLLEGE, PULLUT , National , 17-08-2020 , KKTM COLLEGE, PULLUT
- The Role of Mathematics in Cryptography, Webinar , CDC, Perambra, Kozhikode , National , 15-08-2020 , Perambra, Kozhikode
- National Education Policy 2020 and Higher Education in Kerala In Ker, Webinar , IQAC, St. Xavier's College for Women, Aluva , National , 11-08-2020 , St. Xavier's College, Aluva
- INCESSANTNESS Webinar Series, Webinar, IQAC, NSS College Nilamel, Kollam , National , 11-08-2020 , NSS College Nilamel, Kollam
- Research and Publication Ethics, Webinar, Research Council, Dept. Of Library and IQAC , National , 06-08-2020 , St.Thomas College, Thrissur
- Approach to Accreditation , Webinar , IQAC, MAR ATHANASIOUS COLLEGE, KOTHAMANGALAM , National , 06-08-2020 , MAR ATHANASIOUS COLLEGE, KOTHAMANGALAM
- Career Advancement Scheme and UGC regulations , Webinar , IQAC, Marthoma College, Chungathara , National , 03-08-2020 , Marthoma College, Chungathara
- Quantum Cryptography , Webinar , Department of Physics, Govt. College, Kariyavattam, National, 01-08-2020, Govt. College, Kariyavattam
- Revised NAAC Manual and Challenges of 4th Cycle Accreditation , Workshop , IQAC St. Thomas College, Thrissur , University , 18-02-2020 , St. Thomas College, Thrissur
- Placement and promotion of College Teachers based on the UGC Regulations 2018, Workshop , Kerala Private College Teachers Association , University , 11-01-2020
- Three day workshop on finite fields , Workshop , Department of Mathematics and IQAC St. \Thomas College Thrissur, State, 06-11-2019 , St. Thomas College, Thrissur
- Outcome Based Education , Workshop , KSHEC, Thiruvananthapuram and IQAC, St. Thomas' College, Thrissur , Other , 26-08-2019 , St.Thomas' College, Thrissur

- Revised NAAC Accreditation Process , Workshop , IQAC, St. Thomas' College, Thrissur , Other , 03-08-2019
- Draft National Education Policy 2019 , Seminar , IQAC, St. Thomas' College, Thrissur , Other , 12-07-2019 , St. Thomas' College, Thrissur
- Faculty Orientation Programme, Seminar , IQAC, St. Thomas' College, Thrissur, Other , 06-06-2019 , St. Thomas' College, Thrissur
- Innovations in Advanced Research , Workshop , KFRI, Peechi and St. Thomas' College, Thrissur , Other , 16-03-2019 , KFRI, Peechi
- Re bureaucratization of Indian Higher education and Assessment of Teacher Quality Seminar , Kerala Private College Teachers Association, 08-02-2019 , Shreyas Convention Centre, Sulthan Bathery, Wayanad
- Workshop on Revised NAAC Manual , Workshop , IQAC St. Thomas' College, Thrissur , 28-09-2018 , St. Thomas' College, Thrissur
- International Conference on Mathematics 2018 , Conference , Department of Mathematics, St. Thomas college, Thrissur , International , 29-06-2018 , St. Thomas' College, Thrissur
- International Yoga Day , Others , Ministry of Youth Affairs and Sports Nehru Yuva Kendra, Thrissur, NCC, NSS , State , 21-06-2018
- Acquiring API Scores and Submitting PBAS based proposal under CAS , Workshop, IQAC, Christ College, Irinjalakuda ,01-04-2017 , Christ College, irinjalakuda, Thrissur, kerala
- ACADEMIC AND ADMINISTRATION IN INDIA GLOBAL CHALLENGES AND LOCAL RESPONSIBILITIES , Conference , ST. THOMAS' COLLEGE, THRISSUR , National , 07-03-2017 , ST. THOMAS' COLLEGE, THRISSUR, KERALA
- RESEARCH-EXPECTATIONS AND EXTENSIONS , Seminar , Research Council, St. Thomas' College, Thrissur , National , 19-03-2016 , St. Thomas' College, Thrissur
- Exploring the Dimensions of Quality Research , Seminar , Research Council, St. Thomas' College, Thrissur , National , 07-11-2015 , St. Thomas' College, Thrissur
- OPPORTUNITIES AND RESOURCES IN RESEARCH , Seminar , RESEARCH COUNCIL, St. THOMAS' COLLEGE (AUTONOMOUS), THRISSUR, KERALA , National , 03-03-2015 , ST. THOMAS' COLLEGE, THRISSUR
- Applied Mathematics , Conference , Department of Mathematics, St. Thomas' College, Thrissur , National , 27-02-2015 , St. Thomas' College, Thrissur, Kerala

- **Guideship details:**

- Mr. Antony John E F – Ph.D. Research Scholar (Part-time), University of Calicut (Registered on 23 April 2022) – Currently Pursuing.
- Ms. Jincy Pauly – Ph.D. Research Scholar (Full-time), University of Calicut (Registered on 11 April 2022) – Currently Pursuing.
- Mr. Pratheesh George – Ph.D. Research Scholar (Part-time), University of Calicut (Registered on 14 August 2023) – Currently Pursuing.
- Mr. Renjith Varghese – Ph.D. Research Scholar (Part-time), University of Calicut (Registered on 10 June 2022) – Currently Pursuing.

- **Academic Positions**

S.N.	Name of Academic Body	Name of Institution	Position	Date
1.	Editorial Board	Carmel College, Mala	Member of Peer Review Committee	01-06-2023
2.	Board of Studies	St. Thomas college (Autonomous), Thrissur	Member	01-06-2023
3.	Board of Studies	Christ College (Autonomous), Irinjalakuda	Member	01-06-2023
4.	Academic Council	St. Thomas college (Autonomous), Thrissur	Member	01-06-2022
5.	Board of Studies	St. Thomas college (Autonomous), Thrissur	Chairman	01-06-2022
6.	Board of Studies	St. Thomas college (Autonomous), Thrissur	Chairman	01-06-2021
7.	Academic Council	St. Thomas college (Autonomous), Thrissur	Member	01-04-2021
8.	Board of Studies	St. Thomas college (Autonomous), Thrissur	Chairman	01-06-2020
9.	Academic Council	St. Thomas College (Autonomous), Thrissur	Member	01-04-2020
10.	Board of Studies	St. Thomas college (Autonomous), Thrissur	Member	01-06-2015
11.	Board of Studies	St. Thomas college (Autonomous), Thrissur	Member	01-06-2014

- **MEMBERSHIP (Research body/Professional Association)**

S.N.	Name of the Body	Position	Level	Date
1.	BQPS Kannur University	Member	Others	16-02-2022
2.	Research cell of Carmel College, Mala	Member of Peer Review Committee	Others	01-10-2021
3.	KMA	Member	International	01-06-2021

- **EXTENSION and OUTREACH ACTIVITIES**

S.N.	Name of Extension Activity	Name of Collaborating Agency	Target Group	Date
1.	Judge	Directorate of general education	Plus two students	10-11-2022
2.	Guest Lecture Interview	Christ College, irinjalakuda	PG students	22-04-2022
3.	Observer CMAT2021	NTA	Plus Two Students	31-03-2021
4.	Observer of JEE Examination March 2021	NTA	Plus two students	16-03-2021
5.	Observer of JEE examinations February 2021	NTA	Plus two students	23-02-2021
6.	Subject expert in guest lecture Interview	St. Joseph's College, Irinjalakuda	PG pass out students	30-12-2020
7.	Presiding Officer in the Panchayath election	Election Commission	Voters	09-12-2020
8.	Observer NEET September 2020	NTA	Plus Two Students	13-09-2020
9.	Observer of JEE September 2020	NTA	Plus Two Students	01-09-2020
10.	CBT Observer for ICAR 2019	National Testing Agency	Higher secondary students	01-07-2019
11.	Observer for JEE (Main) Examination, January 2019	National Testing Agency	Higher Secondary students	08-01-2019
12.	Observer for UGC-NET Examination Dec 2018	National Testing Agency	Post Graduate students	20-12-2018
13.	Judge in Kerala State School Sastrolsavam	Director of Public Instruction	Higher secondary Students	24-11-2018
14.	Blood Donation	Kerala State Blood Transfusion Council	Students	15-02-2018
15.	Judge in the State Level Sreenivasa Ramanujan Memorial Paper Presentation Competition 2017-2018	Director of Public Instruction	Higher Secondary Students	27-01-2018

16.	The Kerala school Sasthrolsavam 2017	Director of Public Instruction	Higher secondary Students	23-11-2017
17.	Judge on Thrissur Revenue District Mathematics Fair 2017-18	Deputy Director of education	Higher secondary students	09-11-2017
18.	Blood Donation	AMALA INSTITUTE OF MEDICAL SCIENCES	Students	10-03-2017
19.	The Kerala School Shastrolsavam 2016	Director of Public Instruction	Higher Secondary Students	23-11-2016
20.	Judge in the District Science Fair	The Deputy Director of Education, Thrissur	Higher Secondary Students	17-11-2016
21.	The presiding officer for the General Election Kerala 2016	Election Department of Kerala	Assembly Election	19-04-2016
22.	The Kerala School Sasthrolsavam 2015-16	Office of the Director of Public Instruction Kerala, Thiruvanthapuram	Higher secondary students	24-11-2015
23.	Presiding officer of Local Body Election 2015	Election Department	Panchayat	11-03-2015

• **Events Organized**

S.N	Name of Event	Role played	Level	Date
1.	Pi Day Lecture series 3	Coordinator	Others	17-03-2021
2.	Pi Day Lecture series 2	Coordinator	Others	10-03-2021
3.	Pi Day Lecture series 1	Coordinator	Others	09-03-2021
4.	PTA General Body	Coordinator	Others	12-01-2021
5.	National Mathematics Day	Coordinator	State	22-12-2020
6.	National Webinar on Emerging Trends in Applied Mathematics	Coordinator	National	16-12-2020
7.	Dr. Thomas Moothedan Lecture series	Coordinator	State	17-10-2020
8.	Dr. Thomas Moothedan Memorial Lecture Series	Coordinator	State	14-10-2020
9.	Dr. Thomas Moothedan Memorial Lecture Series	Coordinator	State	10-10-2020
10.	Dr. Thomas Moothedan Memorial Lecture Series	Coordinator	State	26-09-2020
11.	Student Induction Programme (SIP)	Convener	Others	14-09-2020
12.	Online Training Programme for LaTeX Research Writing and Project Documentation	Convener	National	05-06-2020

13.	Workshop in Real Analysis	Members	Others	02-08-2019
14.	Students\' Induction Programme	Coordinator	Others	08-06-2019
15.	pi DAY CELEBRATIONS	Convener	State	17-01-2019
16.	NATIONAL MATHEMATICS DAY	Convener	State	15-01-2019
17.	P TA General Body	Coordinator	Others	06-09-2018
18.	Effective Parenting in the modern times	Coordinator	Others	04-09-2018
19.	Effective Parenting In the Modern Times	Coordinator	Others	04-09-2018
20.	A national Workshop on Acquiring API Scores submitting PBAS based Proposal under CAS	Coordinator	National	05-08-2017

• **Resource Persons**

S.N.	Title of the Program	Role	Organized by	Level	Date
1.	Workshop on State level talent an quiz exam for higher secondary students	Subject Expert	General Education Department, Kerala	State	06-10-2023
2.	IWAC 2023	Invited Talk	Department of Mathematics	National	26-05-2023
3.	State Maths Fair	Judge	General Education, Thiruvananthapuram	State	10-11-2022
4.	Guest Lecture interview committee	Subject Expert	Christ College, Irinjalakuda	Inter-Collegiate	22-04-2022
5.	ONE DAY MATHEMATICS SEMINAR on Basics of Real Analysis	Invited Talk	Sree Kerala Varma College	Inter-Collegiate	03-09-2018
6.	EPSILON-SKVCMAA	Invited Talk	P G Department of mathematics, S K V C Thrissur	Inter-Collegiate	09-03-2018
7.	INAUGURATION OF MATHEMATICS ASSOCIATION	Invited Talk	DEPARTMENT OF MATHEMATICS, SREE KERALA VARMA COLLEGE, THRISSUR	Inter-Collegiate	15-12-2017
8.	The Lecture Series	Invited Talk	Department of Mathematics, Carmel College, Mala	Inter-Collegiate	02-12-2016
9.	TWO DAY SEMINAR ON ALGEBRA AND DISCRETE MATHEMATICS	Subject Expert	DEPARTMENT OF MATHEMATICS, MAHARAJA'S COLLEGE, ERNAKULAM	State	01-12-2016
10.	Inauguration of mathematics Association	Invited Talk	Department of Mathematics, Sacred Heart College, Chalakudy	Inter-Collegiate	10-11-2016

11.	Mathematics Association Inauguration	Subject Expert	Department of Mathematics, P.M.Govt. College, Chalakudy	Inter-Collegiate	25-02-2016
12.	EMERGING TRENDS IN SIGNAL PROCESSING	Subject Expert	Department of Electronics and Communication Engineering	Inter-Collegiate	18-09-2015

FDPs Attended

- Short Term Programme, organized by **Marian College, Kuttikkanam** in association with **KSHEC**, 21 September 2023.
- Short Term Programme, organized by **HRDC, University of Calicut**, 11 August 2021.
- Short Term Programme, organized by **PG Department of Mathematics**, 03 September 2020.
- Short Term Programme, organized by **Kerala State Higher Education Council (KSHEC)**, 13 July 2020.
- **UGC-HRDC Refresher Course**, organized by **University of Kerala**, 17 September 2019.
- Short Term Programme, organized by **Kerala State Higher Education Council (KSHEC)**, 06 May 2019.
- Short Term Programme, organized by **UGC-HRDC**, 19 March 2019.
- **UGC Academic Staff College (ASC) Refresher Course**, organized by **University of Calicut**, 11 July 2012.
- **UGC Academic Staff College (ASC) Orientation Programme**, organized by **University of Calicut**, 06 January 2010.