

NIRMALA COLLEGE FOR WOMEN (AUTONOMOUS)

COIMBATORE

STAFF PROFILE



NAME : Dr.G.Sindhu
DESIGNATION : Associate Professor & Head
DEPARTMENT : Mathematics SF
QUALIFICATION : M.Sc., M.Phil., HDCA., Ph.D., SET Cleared
EXPERIENCE : Teaching: 19 Years 8 Months
Research: 8 Years 6 Months
AREAS OF SPECIALIZATION : Topology & Graph Theory
E-MAIL : sindhukannan23@gmail.com
ACADEMIC QUALIFICATIONS :

DEGREE	YEAR OF COMPLETION	NAME OF THE INSTITUTION	CLASS
B.Sc.	1999	Nirmala College for Women, Coimbatore	I Class with Distinction-College Topper & University Rank Holder
M.Sc.	2001	Annamalai University, Chidambaram	I Class
M.Phil.	2006	Annamalai University, Chidambaram	I Class
Ph.D	2016	Nirmala College for Women, Coimbatore	-
HDCA	2006	CSC Computers, Coimbatore	-

ADDITIONAL QUALIFICATIONS:

DIPLOMA/ VOCATIONAL/ CERTIFICATION	AREA OF SPECIALIZATION	NAME OF THE INSTITUTION/ UNIVERSITY/ AGENCY	YEAR
Internal Auditor Training Course	Educational Organizations Management System (ISO EOMS 21001:2018)	Nature Science Foundation, Coimbatore	2025

RESEARCH GUIDANCE:

PROGRAMME	NO. OF SCHOLARS	
	COMPLETED	PURSUING
Ph.D	3	5
M.Phil	1	-

RESEARCH PUBLICATIONS:

INTERNATIONAL:

- [1] On Regular generalized star b-closed sets, Int. Journal of Mathematical Archive-4(10) (2013),85-92
- [2] On Contra rg*b-continuous functions and Approximately-rg*b- continuous functions in Topological Spaces, Int.Journal of Mathematical Archive-4(12), 2013 ,87-93.
- [3] Applications of rg*b-open sets , Journal of Global Research in Mathematical Archives, vol 1,No.12,(2013) , 40-49
- [4] On rg*b-compactness and connectedness in Topological Spaces,Int. Journal of Mathematical Archive-5(2)(2014), 59-64.
- [5] rg*b-Separation Axioms, Int. Journal of Computer Application-4 (vol 3),(2014), 146-156
- [6] On Regular Generalized Star b closed sets in Bitopological spaces, Asian Journal of Current Engineering and Maths (2014) Volume 3.Issue6.22.89-93
- [7] On rg*b-Locally Closed sets in Bitopological spaces, Journal of Global Research in Mathematical Archives, Volume 2, No. 3 (2014), 1-7.
- [8] Minimal rg*b-Open and Maximal rg*b- closed sets , Int. Journal of Interdisciplinary Research and Innovations, Vol. 2, Issue 3, 2014, 14-21.
- [9] New Class of rg*b-Continuous Functions in Topological spaces,Int. Journal of Fuzzy Mathematical Archive, Vol. 5, No. 2, (2014), 103-111
- [10] On Nano Generalized β Regular spaces and Nano Generalized β Normal spaces. Annals of Pure and Applied Mathematics, Vol 14, No.2, 2017,225-229
- [11] On Nano Generalized β locally closed sets and Nano Generalized β locally closed continuous functions in Nano Topological spaces, International Journal of Advanced Research, Vol.5, No.7, 2017, 2310-2315
- [12] On Nano (τ_1, τ_2) Generalized β closed sets and Nano (τ_1, τ_2) Generalized β open sets in Nano Bitopological Spaces, International Journal of Mathematical Archive, Vol.8, No.8, 2017, 198-203
- [13] Decomposition of rg*b-Closed Sets in Supra Topological Spaces, International Journal of Trend in Research and Development, Vol 4, No.6,2017, 464-467
- [14] Characterization of a new form of Kernel set in Topological spaces, International Journal of Scientific Research and Review, Vol-8, Issue-6,2019, 740-747.
- [15] Intuitionistic fuzzy soft gb-closed and gb-open sets in intuitionistic fuzzy soft topological spaces, INFOKARA Research, Vol-8, issue-10, 2019, 540-554

- [16] Neutrosophic Regular Generalized Star B-Closed Sets In Neutrosophic Topological Spaces, The International journal of analytical and experimental modalanalysis, Vol-11 issue-11, 2019, 73-79
- [17] On Pythagorean Nano Regular Generalized Star b-Closed sets in Pythagorean Nano Topological Spaces, Alochana Chakra Journal Volume 9, Issue 8, 2020, 506- 513
- [18] Binary S_α Continuous, irresolute and strongly b S_α continuous function in Binary Topological space, European Chemical Bulletin 12,(10),2023, 11294 – 11305
- [19] A Study of Generalized Neutrosophic Binary Closed Sets in Neutrosophic Binary Topological Spaces, Indian Journal of Natural Sciences, Vol 14, Issue 79, 2023, Pg:60269 -60275
- [20] On Fuzzy and Intuitionistic Fuzzy Topological BP-Algebras, International Journal of Creative Research Thoughts, 2024, Vol 12. Issue-9, Pg:1416-1423
- [21] New Similarity Measures for Neutrosophic Binary Topology using Euclidean Distance, Neutrosophic Sets and Systems, Vol 6, Issue 7, 2024 ,Pg: 233-245
- [22] Alternatives Open to Working Women's for Infertility – A Mathematical Model using the Penta Partitioned Neutrosophic Borda Method, Tujin Jishu / Journal of Propulsion Technology, Vol 4, Issue 5, 2024 ,Pg: 4773-4780
- [23] Micro Binary Semi Open Sets in Micro Binary Topological Spaces, Tujin Jishu / Journal of Propulsion Technology, Vol 4, Issue 5, 2024 ,Pg: 4096 - 4100
- [24] Application of Neutrosophic Micro Binary Topological Space, Neutrosophic Sets and Systems, Vol 87, 2025, Pg:53-67
- [25] Micro Binary Topological spaces and its Application, Jnanabha, Vol. 55(2), 2025,Pg.157-162
- [26] Micro Binary Continuous Functions in Micro Binary Topological spaces, Indian Journal of Natural Sciences, Vol.16, Issue-91, 2025, Pg.98684-98689
- [27] Application of Digital Pentapartitioned Neutrosophic set in MCDM for Pregnancy Health Care via Digital Penta Partitioned Neutrosophic Borda Approach, UtilitasMathematica, Vol.122 (2), 2025, Pg.1773-1784
- [28] A Novel Approach on Digital Penta Partitioned Neutrosophic Topological Structures in BP-Algebra, Neutrosophic Sets and Systems, Vol 94, 2025, Pg:323-352
- [29] Penta Partitioned Neutrosophic Digital Continuous Maps and Connected Maps, Indian Journal of Natural Sciences, Vol.16, Issue-93, 2025, Pg.105718-105724
- [30] Modeling Human Heart Blood Circulation Using Hexa Graph Topology, UtilitasMathematica, Vol.122 (2), 2025, Pg.1426-1432
- [31] A New form of N-Hexa Topological Approach to Reducing Maternal Anxiety after Delivery, UtilitasMathematica, Vol.122 (2), 2025, Pg.1359-1371

PRESENTATIONS IN CONFERENCE:

INTERNATIONAL:

- [1] A Study of Generalised Neutrosophic Binary Closed Sets in Neutrosophic Binary Topological Spaces, International – International Conference on Contemporary Approaches in Sciences & Humanities: Future Prospects [ICCASH'23], Departments of

Mathematics, Chemistry, Botany, Zoology, Geography & Library and Information Science, Nirmala College for Women, Coimbatore , 02.02.2023 & 03.02.2023

PARTICIPATION IN CONFERENCES:

- [1] National Conference on Advances in Applied Mathematics, Dept of Applied Mathematics, Bharathiar University, Coimbatore, 19.03.2010
- [2] National Conference on Mathematical and Computational Intelligence, Dept of Mathematics, Sree Narayana Guru College, Coimbatore, 09.02.2012
- [3] International Conference on Innovations in Communication, Information and Computing, Dept of Mathematics, Sasurie College of Engineering, Vijayamangalam. 09.01.2013 to 11.01.2013
- [4] National Level Conference on Mathematical Science and its Computational Aspects. Dept of Mathematics, Dr.N.G.P. Arts and Science College, Coimbatore.07.02.2013
- [5] National Conference on Recent Advances in Mathematical Analysis and Applications, NBHM, Mumbai and DST, New Delhi. Dept of Mathematics, K.S. Rangasamy College of Arts and Science, Tiruchengode.06.09.2013 & 07.9.2013
- [6] Inclusive Indian Traditions for a Holistic Global Education, PSGR Krishnammal College for Women, Coimbatore 03.05.2020 to 09.05.2020
- [7] Higher education in the VUCA world, IQAC, Nirmala college for women, Coimbatore 28.05.2020
- [8] Recent Trends in Fourier Transform & Machine Learning: A Mathematical Approach, Department of Science and Humanities, KGiSL Institute of Technology , Coimbatore , 22.06.2020 and 23.06.2020.
- [9] Emerging Challenges of Mathematical Applications in Engineering, PSG Polytechnic College ,Coimbatore, 22.06.2020 to 26.06.2020

PARTICIPATION IN SEMINARS:

- [1] UGC Sponsored International Symposium on Trends and Applications in Optimal Control Theory. Dept of Mathematics, Sri G.V.G. Visalakshi College for Women, Udumalpet.26.08.2011
- [2] Science Academies Lecture Workshop on New Vistas on Mathematical Modelling. Indian Academy of Sciences, Bangalore.Indian National Science Academy, New Delhi. Dept of Mathematics, Nirmala College for Women, Coimbatore. 13.08.2012 & 14.08.2012
- [3] Nirmala Annual Research Congress, Internal Quality Assurance Cell,Nirmala College for Women, Coimbatore. 28.09.2013
- [4] DBT –STAR College Scheme Sponsored National Symposium on Novel Approaches toward Bio-Mathematics, PG & Research Department of Mathematics,Sri Saradha College for Women, Salem, 14.02.2022

PARTICIPATION IN WORKSHOPS:

- [1] Workshop on Hands on Training in Latex., Dept of Mathematics, Nirmala College For Women, Coimbatore. 10.02.2012
- [2] Workshop on Optimization Techniques for Image Processing, Dept of Computer Applications, Bharathiar University, Coimbatore. 9.03.2012 & 10.03.2012

- [3] R-Programming, Dept of Computer Science & Engineering, SKN Sinhgad College of Engineering, Pandharpur, Maharashtra in association with Spoken Tutorial IIT Bombay, Mumbai , 30.04.2020 to 05.05.2020
- [4] How to crack CSIR NET & SET in Mathematics, Dr.NGP Institute of Technology, Coimbatore 24.06.2020 to 26.06.2020
- [5] Python Programming, Kaypeeyes College of Arts & Science, Kotagiri, The Nilgiris., Spoken Tutorial, IIT Bombay , 24.06.2020 to 29.06.2020
- [6] DST-FIST & DBT –STAR College Scheme Sponsored National Workshop on Mathematical Insight- Biological Problems, PG & Research Department of Mathematics, Sri Saradha College for Women, Salem, 23.02.2022
- [7] Big Data Technology, Future Skills Prime, CDAC, Noida, 08.08.2023 - 17.08.2023
- [8] Artificial Intelligence Tools for Educators, IGNITE Life Skills Academy & IQAC, Sacred Heart College, Thevara,Kochi, 27.10.2023

**PARTICIPATION IN ORIENTATION PROGRAMME/ INDUCTION PROGRAMME/
SHORT TERM COURSES:**

- [1] Moodle learning Management system , Kaypeeyes College of Arts & Science, Kotagiri, The Nilgiris., Spoken Tutorial, IIT Bombay from 29/04/2020 to 01/05/2020
- [2] Moodle learning Management system, Nirmala College for Women, Coimbatore & Spoken Tutorial, IIT ,Bombay from 11.05.2020 to 15.05.2020
- [3] STTP on “*Applications of Mathematical Sciences*” , Dept of Basic Science and Humanities (Mathematics Division), KDK College of Engineering, Nagpur from 13.07.2020 to 18.07.2020 for 6 days

PARTICIPATION IN FACULTY DEVELOPMENT PROGRAMMES:

- [1] Faculty Development Programme on Image Processing and its Practical Approach, Dept of Computer Science, D.J. Academy for Managerial Excellence, Coimbatore. 09.12.2011
- [2] FDP on Innovative Teaching Strategies, CDC, Nirmala College for Women, Coimbatore, 30.10.2019
- [3] Revised Guidelines for the Accreditation Process of NAAC, IQAC, Nirmala College for Women, Coimbatore, 22.02.2020
- [4] Revised Guidelines for the Accreditation Process of NAAC, IQAC, Nirmala College for Women, Coimbatore, 07.03.2020
- [5] Innovative Eco-systems, Incubation centres and Start-Ups for Higher Education Systems, IQAC, Nirmala College for Women, Coimbatore, 19.03.2020
- [6] 3 Days Online FDP, Department of Mathematics, Pioneer College of Arts & Science, Coimbatore, 27.01.2022 to 29.01.2022
- [7] IP Awareness/Training Program , Intellectual Property Office, India, 12.04.2022
- [8] 3 Days National FDP on Effective Teaching and Learning Methodologies for Differential Equations, PSGR Krishnammal College for Women, Coimbatore , 25.04.2022 to 27.04.2022
- [9] One Week National Level FDP, RBVRR Women’s College (Autonomous), Hyderabad. 02.05.2022 To 06.05.2022
- [10] FDP on Education 5.0, Department of Information Technology, Dr.M.G.R Educational and Research Institute, Chennai, 15.05.2023 to 19.05.2023

- [11] Exploration of Mathematics in Emerging Fields, Department of Mathematics, PPG College of Arts & Science, Coimbatore. 21/02/2024 to 25/02/2024
- [12] Python Programming for data Analysis, Electronics and ICT Academy, C-DAC, Hyderabad, 20.11.2024 To 24.11.2024
- [13] Cyber Physical System, Dr.M.G.R Educational and Research Institute, Chennai, 26.05.2025 To 30.05.2025
- [14] Outcome Based Education, ST. Mary's Centenary Degree College, Telangana, 02.06.2025 to 06.06.2025
- [15] Generative AI in Higher Education : Emerging Tools and Future Directions, IQAC, Nirmala college for Women, Coimbatore, 06/02/2026

CONFERENCE/ SEMINAR/ WORKSHOP ORGANIZED:

- [1] One Day State Level Seminar – CYBERMATICS, 02/03/2010
Resource Persons:
Dr. K. Balachandran, Professor & Head, Department of Mathematics, Bharathiar University, Coimbatore.
Mrs. N. Anu Sheela, Assistant Professor, Department of Mathematics, CSI College of Engineering & Technology, Ketti, The Nilgiris.
Mr. Ramesh Kumar, Assistant Professor, Department of Mathematics, Chikkaiah Naicker College of Arts & Science, Erode.
- [2] One Day National Seminar – CYBERMATICS, 06/03/2012
Resource Persons:
Dr. P. T. Ramachandran, Associate Professor, Department of Mathematics, University of Calicut, Kerala.
Mr. T. Senthil Kumar, Assistant Professor, Department of Computer Science & Engineering, Amrita University, Coimbatore.
Dr. Sai Sundara Krishnan, Associate Professor, Department of Mathematics, PSG College of Technology, Coimbatore.
- [3] One Day Workshop – Personality Development, 21/02/2013
Resource Person:
Rev. Fr. Dr. Devadass, Counsellor & Claretian Priest, Yercaud, Salem.
- [4] One Day Workshop – Mathematics and Its Varied Applications, 22/02/2013
Resource Persons:
Dr. R. Arumuganathan, Associate Professor, Department of Mathematics, PSG College of Technology, Coimbatore.
Dr. G. Prema, Assistant Professor, Department of Mathematics, Amrita School of Engineering, Coimbatore.
- [5] One Day Workshop – CYBERMATICS 2014, 07/03/2014
Resource Person:
Mr. S. Thiagarajan, Operations Head, IMAGE Institute of Multimedia, Arts and Graphic Effects, Coimbatore.
- [6] One Day Workshop – CYBERMATICS 2015, 23/01/2015
Resource Person:

- Mrs. J. R. Jennifer Ane, Program Analyst, Cognizant Technology Solutions, Coimbatore.
- [7] CYBERMATICS – 2016, 23/02/2016
Resource Persons:
Dr. K. Indirani, Associate Professor & Head, Department of Mathematics, Nirmala College for Women, Coimbatore.
Prof. Smrithi Rekha, Research Faculty, Create Labs, Amrita University, Coimbatore.
- [8] International Conference on Mathematics and Computer Science, 15/12/2016 – 17/12/2016
Resource Persons:
Prof. Dr. Balagurusamy, Ex-Vice Chancellor, Anna University, Chennai.
Dr. Gang Liu, Hengyang Normal University, China.
Mr. S. Vibib Chandar, Blue Crest University, Ghana.
Mr. Liu Zhihong, Hengyang Normal University, China.
- [9] National Conference on Recent Trends in Graph Theory, 20/02/2019
Resource Persons:
Dr. Sr. K. A. Germina, Associate Professor, Department of Mathematics, Central University of Kerala, Kasaragod.
Dr. R. Kala, Professor, Department of Mathematics, Manonmaniam Sundaranar University, Tirunelveli.
Dr. R. Radha Iyer, Assistant Professor, Department of Mathematics, Amrita School of Engineering, Coimbatore.
Ms. S. Manimekalai, Assistant Professor, Department of Mathematics, Dr. N. G. P. College of Arts and Science, Coimbatore.
- [10] National Conference on Current Tenors in Graph Theory, 11/01/2020
Resource Persons:
Dr. M. G. Karunambigai, Assistant Professor, Department of Mathematics, Sri Vasavi College, Erode.
Dr. S. Aparna Lakshmanan, Assistant Professor, Department of Mathematics, St. Xavier's College for Women, Aluva, Kerala.
Dr. S. Uma Maheswari, Associate Professor, Department of Mathematics, CMS College of Science and Commerce, Coimbatore.
- [11] International Conference on Enactments of Mathematics in Various Domains, 07/02/2020
Resource Persons:
Mr. Baskar Chinnusamy, Vice President, Cyber Security Services, Wilmington, Delaware, USA.
Mrs. Lakshmi Priya Chandrasekaran, Medical Coder, Quality Diagnostic Lab, Abu Dhabi.
Dr. Rayees Rafiq Sheikh, Post-Doctoral Research Scholar, Department of Pharmacology, University of Illinois, Chicago, USA.
Mrs. Josy Praveena, JD Consultant, Wipro Technologies, Germany.
- [12] Health and Hope during COVID-19, 30/04/2021
Resource Persons:
Acu Healer R. Thangamani, Classical Acupuncturist & Yoga Master, Coimbatore.
Dr. G. N. Shriram, M.B.B.S., Dhanalakshmi Srinivasan Medical College and Hospital, Perambalur.

- Anitha D., Co-ordinator, Chocolate Buds Academy, Coimbatore.
- [13] Workshop on Data Analytics using R Programming, 25.08.2021
Resource Person:
Dr. S. Lara Priyadharshini, Assistant Professor, G. R. Damodaran Academy of Management, Coimbatore.
- [14] One Day Workshop on Photoshop for Beginners, 20.12.2021
Resource Person:
Mr. S. Thiagarajan, Operational Head, Image Institute of Multimedia, Arts & Graphic Effects, Coimbatore.
- [15] Workshop on Graphic Designing, 10.03.2023
Resource Persons:
Ms. Kavipriyanka, Operations Head, Institute of Multimedia Arts & Graphic Effects, Coimbatore.
Mr. Ragukumar, Technical Head, Institute of Multimedia Arts & Graphic Effects, Coimbatore.
- [16] Workshop on LaTeX, 14.12.2023
Resource Person:
Mr. T. S. Sam Wilson, Assistant Professor of Mathematics, Sree Narayana Guru College, Coimbatore.

BOOK PUBLICATIONS:

- [1] The Syllogism Handbook: A Comprehensive Resource, ISBN: 978-93-342-2046-9
- [2] MCQs on Quantitative Aptitude, ISBN: 978-81-983219-3-0
- [3] Mathematical Computing using Scilab, ISBN: 978-81-993707-2-2

MEMBER IN BOARD OF STUDIES:

- [1] Member of Academic Council, Nirmala College for Women, Coimbatore
- [2] BOS member of Mathematics, Nirmala College for Women, Coimbatore.

MEMBERSHIP IN PROFESSIONAL BODIES:

- [1] Semester Question Paper Scrutinizing, Kongunadu Arts & Science College, Coimbatore.
- [2] External Subject Expert for Doctoral Committee Meeting in Kongunadu Arts & Science College, Coimbatore, RVS College of Arts and Science, Coimbatore and Sri Krishna. Arts & Science College, Coimbatore
- [3] Semester Question Paper Setter for Hindusthan College of Arts and Science, Coimbatore and Kovai Kalaimagal College of Arts and Science, Coimbatore