

Name : **K.Gomathy**
Designation : Assistant Professor
Department : Computer Applications
Qualification : M.C.A., M.Phil.
Experience : Teaching:19.5Years
Area of Specialization(s) : **Networking**
Email(Official ID) : gomathyk@drngpasc.ac.in



AcademicQualifications

| Degree | Branch | Institution/ UniversityName | Yearof Graduation |
|------------------------|-----------------------|-----------------------------------|-------------------|
| PhD | Computer Science | P.S.G College of Arts and Science | Pursuing |
| M.Phil. | ComputerScience | Bharathidasan University | 2009 |
| M.C.A | Computer Applications | Bharathidasan University | 2003 |
| B.Sc(Applied Sciences) | Computer Applications | P.S.G College of Technology | 1997 |

Additional Qualifications

| Diploma/Vocational/Certification | AreaofSpecialization | Institution/ University/Agency Name | Year |
|----------------------------------|-----------------------------|-------------------------------------|------|
| NPTEL | C Programming | IIT Kanpur | 2017 |
| NPTEL | Data Base Management System | IIT Kanpur | 2019 |
| NPTEL | Internet of Things | IIT Kanpur | 2020 |
| NPTEL | Cloud Computing | IIT Kanpur | 2024 |
| NPTEL | Programming in JAVA | IIT Kharagpur | 2025 |

ResearchGuidance

| Programme | No. ofScholars | |
|-----------|----------------|----------|
| | Completed | Pursuing |
| Ph.D. | - | - |
| M.Phil. | 1 | - |

Research Publications(Indexed)

K.Gomathy “HIPI: A REVIEW ON HADOOP MAP REDUCE FRAMEWORK USING IMAGE PROCESSING IN BIGDATA”, International journal of computerscience and engineering, Vol.06 ,Issue.08,pp.34-39,Oct-2018 ISSN:2229-5631(Indexed in UGC).

K.Gomathy&P.Dineshkumar"DETECTIONOFROUTINGMISBEHAVIORINMANETBYENHANCED 2 ACK SCHEME USING DSR PROTOCOL", International journal of Engineering andComputerScience, Vol.2,Issue.7,pp.2221-2227,July2013,ISSN:2319-7242(Indexed in Google Scholar)

OtherPublications:International/NationalJournals

K.Gomathy , “Homomorphic Encryption for Edge Computing Security”, Journal of Cyber Security Privacy Issues and Challenges Vol 3, Issue 3, Dec 2024

K.Gomathy ,”Ant with Artificial Bee Colony Techniques in Vehicular Ad-hoc Networks”, International Journal of Data Informatics and Intelligent computing (IJDIC) Vol. 2, No. 3, September 2023, pp. 21~28

K.Gomathy,” Integration of WiFi With WiMAX Technology in Vehicular Ad-hoc Networks”, International Journal of Scientific Research in Computer Science, Engineering andInformation Technology, Volume 7, Issue 2 Page Number : 35-39 March-April-2021, ISSN:2456- 3307 UGCJournalNo:64718

K.Gomathy, ”QFNSSBASEDSCHEDULINGALGORITHMINMOBILEAD-HOCNETWORKS”, Journal of Emerging Technologies and Innovative Research (JETIR)”, Volume 8,Issue 6,Page No:a702-a707,YearJune-2021,ISSNNumber:2349-5162UGCJournalNo:63975

K.E.Hemapriya & K.Gomathy “A SURVEY PAPER OF CLUSTER BASED KEY MANAGEMENTTECHNIQUESFORSECURED DATATRANSMISSIONINMANET”,

International Journal of Advanced Research in Computer and Communication Engineering
Vol, 5, Issue, 10, pp.511-513October2018,ISSN2319-5940

K.Gomathy&P.Mohanasundari&R.Rajeshkanna"SURVEY OF SPECTRUM SENSING ISSUES AND ATTACKS IN COGNITIVE RADIO NETWORKS", International Journal of Scientific and Engineering Research, Vol.1, Special Issue 7, pp66-73, February 2014, ISSN 2279-0055.

K.Gomathy & K.E.Hemapriya" SPLIT MULTIPATH ROUTING WITH MAXIMALLY DISJOINT PATHS NETWORKS International Journal of Emerging Computational and Applied Science ,Vol.1 ,Special issue, pp 74-77 7, February 2014, ISSN 2279-0055

Presentations in Conference

Data Security in Cloud Computing using Blu Fish Algorithm , International Conference on "Recent Trends in Multi-Disciplinary Research and Innovation" . A. V. P. College of Arts and Science (Autonomous), Tirupur, 19Th September, 2025

A smart Motion Analysis System for Fitness and Rehabilitation Applications , International Conference “ Intelligent Automation & NextGen Innovations “, PSG College of Arts and Science ,10.01.2025

An audio Recognition of Animals using optimized Deep Learning Techniques for the Conservation of Wildlife , National Conference on Next Gen Information Science Communication Technology, SRM University, 04.11.2024

Computing Strategies for Green Cloud, International Conference on Computational Intelligence and Communication Technologies, Dr.N.G.P Arts and Science College, 04.01.2024

Cyber Security-Challenges and its Emerging Latest Technologies, International Conference on Computational Intelligence and Biological Science, Sri Ramakrishna college for Women, 05.11.2023

Greedy Perimeter Stateless Routing for Wireless Sensor Network, National Conference on Advanced computing Sciences, Dr.N.G.P Arts and Science College, 16.03.2023

Computing Strategies For Green Cloud, National Conference on Cyber Security and Digital Forensics for Society, PSGR Krishnammal College for Women, 19.10.2022 and 20.10.2022

IoT ENABLED GARBAGE BIN ,International Conference onDigital Information Security andComputing Technologies in collaboration with LINCOLN university Malaysia , 08-04-22 and 09-04-22

IMPROVING DATA BASE SECURITY IN CLOUD COMPUTING, Second International Conference on Research Trends in Computing Technologies, Dr.N.G.P Art and Science College28-Feb-2020and29-Feb-2020

SECURING DATA TRANSFER IN CLUSTER BASED WIRELESS SENSOR NETWORKS.National Conference on Emreging Research Trends in Computer Science and Technology at SNMV College ofArts and Science,29-jan-20

VIRTUAL REALITY AND ITS CHALLENGES , National Conference on Recent Trends andAdvances in the Field of Information Technology, Karpagam Academy of Higher Education,2-Sep-18

ROUTING PROTOCOLS :FLYING AD-HOC NETWORKS, International Conference on Engineering and Technolgy, Rathinam TechnicalCampus, 30-Aug-18and31-Aug-18

A REVIEW ON HADOOP MAP REDUCE FRAMEWORK USING IMAGE PROCESSING INBIGDATA , International Conference on Recent Trends in Computing Technologies, Dr.N.G.P Arts and Science College, Coimbatore,9-Aug-18&10-Aug-18.

EDGE COMPUTING, International Conference on Recent Trends in Computing Technologies,Dr.N.G.PArtsandScienceCollege,Coimbatore,9-Aug-18&10-Aug-18

ANALYSIS OF VARIOUS SECURITY CHALLENGES IN VEHICULAR AD HOC NETWORKS, National Conference on Recent TRernd sand Advances in the Field of Information Technology, Karpagam Academy of higher education,22-Sep-17

WI-FI IN AD-HOC NETWORKS, National al Conference on Emerging Trends in Computing and Communication,Karpagam Universityon17-Feb-17.

SURVEYOFCLUSTERBASEDKEYMANAGEMENTTECHNIQUESFORSECURED DAT A TRANSMISSION IN MANET, National Conference on Emerging Trends in Big DataTechnologiesandResearchIssues,Dr.N.G.PArtsandScience College,Coimabtore24-Feb-17.

TRAITOR TRACING AND SECURE TRANSMISSION OF FILE,National Conference on Information and Communication technologies for environmental sustainability, PSGR Krishnammal College for Women,Coimbatore,5-Feb-16.

KEY MANAGEMENT PROTOCOLS AND OPTIMAL KEY MANAGEMENT IN WIRELESS NETWORKS. National Conference on Emerging Computer Technology,Sri Ramakrishna Mission Vidyalaya College of Arts and Science,Coimbatore,22-Sep-15.

ISSUES OF VARIOUS ATTACKS IN MOBILE AD HOC NETWORKS, National Conference on Recent Trends in Computing Techniques,Arignar Anna College,Salem,07-Feb-15

ANALYSIS OF EFFICIENT ALERT ROUTING PROTOCOL IN MANET.International Conference on Big Data Analysis and Distributed Systems ,Periyar University College of Arts and Science,Salem,12-Sep-15

HYBRID TEMPORAL SEQUENTIAL PATTERN MINING SCHEME FOR MOBILE SERVICES , National level seminar on New Innovations in Computing Technology, Navarasan Arts and Science College for Women,Erode,12-Sep-14.

A SURVEY OF SECURITY ISSUES IN MANET. National Conference on emerging Computer Technology , Sri Ramakrishna Mission vidyalaya college of Arts and Science , Coimbatore , 23-Sep-14

SPLIT MULTIPATH ROUTING WITH MAXIMALLY DISJOINT PATH IN ADHOC NETWORKS, Paper presented in National Conference at Dr.N.G.P Arts and Science College ,Coimbatore,21-Feb-14

ACKNOWLEDGE BASED DETECTION FOR ROUTING MISBEHAVIOR IN MANETS
International Conference on Competency Building Strategies in Business and Technology for Sustainable Development, Sri Ganesh School of Business Management, Salem,22-Feb-13

VOICE OVER IP, National Conference on Advanced Trends in Computer Technology ,Dr. N.G.P Arts and Science College,3-Feb-12

Participation in Conference

International:

International Conference on Advances in IOT ,High Performance in Edge Computing,
ICT Academy 14-Oct-2020 to 18-Oct-2020

International Conference on Research Trends in computer Technologies, Dr. N.G.P Arts and Science College, 30-Jan-14 & 31-Jan-14

National:

State level Conference on Achieving Academic Excellence through Internal Quality Assurance Cell on 9-Dec-11 and 10-Dec-11.

National Conference on Emerging Education Models for 21st Century Learner, Association of Principals of Colleges of Bharathiar University, 1-Aug-15

Participation in Seminars

Participated in National Level Seminar on IOT Cyber Security : Challenges and Solutions for Social and Real Life Applications at Dr.N.G.P Arts and Science College at 05.01.2024

IMPACT OF ICT IN HIGHER EDUCATION. National Seminar on Best Practices in Enhancing the quality of Higher Education, Dr.N.G.P College of Education, Coimbatore-16-Mar-12 to 17 – Mar-12

Participation in Workshop

Virtual Seminar on MULTIDISCIPLINARY APPROACH TOWARDS NATIONAL HIGHER EDUCATION QUALITY FRAMEWORK at CAUVERY COLLEGE FOR WOMEN(AUTONOMOUS), Annamalai Nagar, Trichy-620018, 05.07.2023 to 06.07.2023

One Week Faculty Development Programme on the topic “UPSKILL YOUR RESOURCES”(Under UGC Autonomy Grant), Department of Business Administration (SF), Ayya Nadar Janaki Ammal College, Sivakasi ,07-07-2023 to 13-07-2023

Nine Days National Level Workshop on DEVOPS, Faculty of Science and Humanities, Department of Computer Science & Applications (B.Sc CS), SRM Institute of Science and Technology, Ramapuram, Chennai – 600089, 16.06.2023 to 24.06.2023

Zero Coding: Data Analytics and Machine Learning for IoT Automation, VIT Chennai, 21-06-21 to 25.06.21

Introduction to python programming,ICT academy,SriRamkrishnaCollegeofArtsandScience,17-Dec-18 &18-Dec-18

PYTHON PROGRAMMING, XPLOREIT CORP, Dr.N.G.P Arts and Science College,14-Oct-17&15-Oct-17

Big Data Analytics Using WEKA, Karpagam University,3-Mar-15.

Statistical Tools Using R-Language- A HANDS ON TRAINING, Dr.N.G.P Arts and Science College, 23 Sep-16&24-Sep-16

Participation in Orientation Programme/ ShortTermCourses

Participated in Awareness Program on Empowering ICC Members Through Posh Act- An Advocate's Perspective at Bharathiar University, 07.10.2025

Participated in National level awareness programme on Institutional Development plan for Higher educational Institutions Telangana Council of Higher Education (TGCHE), and Institute for Academic Excellence (IAE), Hyderabad on 06.03.2025.

Participated IIC Online Sessions conducted by Institution's Innovation Council(IIC) of MHRD's Innovation Cell, New Delhi to promote Innovation, IPR, Entrepreneurship, and Start-up among HEIs from28th Aprilto22nd May2020

Research Challenges & Security Issues In Wireless Networks (ISTE Sponsored),Dr.N.G.P Institute of Technology,7-Dec-15to11-Dec-15.

Participation in Faculty Development Programme

One week Faculty development programme Enhancing Academic Research Excellence: A Comprehensive Approach to Research Methodology and AI Integration , Poornima University, Jaipur,
23.06.2025 to 28.06 2025

One week Faculty development programme on Microsoft Azure at Dr.N.G.P Arts and Science College conducted by ICT Academy ,03.02.2025 to 07,02,2025

Five days National Faculty Development Program on AI Tools ,KG College of Arts and Science, Brainovision Solutions India Pvt Ltd , 17.02.2025 to 21.02.2025

One Week National Faculty Development Program on Emerging Research Trends in Computer Science at KG College of Arts and Science, 08.01.2024 to 12.01.2024

One Week National Faculty Development Program on Modern Research Convergence in Next Generation Computing at Krishna College of Arts and Science, 18.12.2024 to 22.12.2024

One Week National Faculty Development Program on Cloud Infrastructure(AWS), KG College of Arts and Science, Brainovision Solutions India Pvt Ltd & All India Council for Technical Education ,21.08.2023 to 25.08.2023

Two days Capacity Building Programme on Drug Abuse Prevention, Bharathiar University, Coimbatore, 27.02.2023 and 28.02.2023

Five Days online FDP on CHALLENGES FOR STUDENTS IN THE NEW NORMAL Government Arts College, Coimbatore, 13/02/2023 to 17/02/2023

Five days Virtual faculty Development Programme on Data Analytics Visualization using Tableau at G.V.G Vishalakshi College for Women ,14.11.2022 to 18.11.2022

Virtual faculty Development Programme on Research Advancements in Intelligent Computing Technologies, Sri Krishna College of Engineering and Technology 19.12.2022 to 23.12.2022

One week online FDP on “Next Generation Computing”, SRN institute of Science and Technology, 18-Apr-22 to 23-Apr-22

Five day online FDP on “Recent Trends in Computing”, Sree Narayana Guru College, 08-Dec-21 to 12-Dec-21

Online FDP on “Research Methodology and Pedagogy for Tertiary Education”, Dr.N.G.P.Arts and Science, 15-Jun-21 to 21-Jun-21.

Faculty Development Programme ON R LANGUAGE, Spoken Tutorial, 4-May-2020 to 9-May-2020

Faculty development programme ON PYTHON 3.4.3 LANGUAGE, Spoken Tutorial, 20-April-2020 to 25-April-2020

Faculty development programme on BOSS LINUX-UBUNTU OPERATING SYSTEM LANGUAGE, Spoken Tutorial, 15-April-2020 to 21-April-2020

Faculty development programme on BOSS JAVA PROGRAMMING, Spoken Tutorial, 5-April-2020 to 13-April-2020

Challenges And Opportunities In Startup And Innovation, MAHENDAR INSTITUTE OF TECHNOLOGY,
14-Jul-2020

Seven Days Faculty Development Programme On NACC Revises ACCREDITATION FRAMEWORK AND OBE ASSESSMENT METHODOLOGY, Dr. N.G.P Arts and Science College, 27-May-2019 to 2-June-2019

Faculty Development Programme on ENTREPRENEURSHIP, PSGR Krishnammal College for Women, 16-Sep-2019 to 28-Sep-2019

QUALITY MEASURES IN HIGHER EDUCATION, Dr. N.G.P Arts and Science College, 03-Dec-18 & 09-Dec-18

FOUNDATION PROGRAM IN ICT FOR EDUCATION. Indian Institute of Technology Bombay, Online, 3-Aug-17 to 7-Sep-17

PEDAGOGY FOR ONLINE AND BLENDED TEACHING_ LEARNING PROCESS, Indian Institute Of Technology Bombay, Online, 14-Sep-17 to 12-Oct-17

C# & .NET Framework, Dr. N.G.P Institute of Technology, Coimbatore, 28-Jun-11 to 2-Jul-11.

Conference/ Seminar/ Workshop Organized

Organizing member in ICSSR sponsored National level seminar on Integration of Traditional Indian Knowledge System into Modern Higher Education : NEP Perspective at Dr.N.G.P Arts and Science College 04.06.2024 to 05.06.2024

Session Chair, National Seminar on The Future of Artificial Intelligence and Machine Learning Tools & its Applications for Rural Health Care: A New Paradigm, Dr.N.G.P Arts and Science College, 14th February 2020

Membership in Professional Bodies

| Name of the Professional Body | Nature of membership | Duration |
|-------------------------------|----------------------|----------|
| IAENG | LIFETIME | - |
| INTERNET OF SOCIETY | LIFE TIME | |

Book Chapter

Published paper entitled Emerging AI Approaches for enhanced Capabilities, Innovations , Applications , May 2025 ISBN : 978-93-48990-28-0

Published paper entitled enabled Garbage Bin in Digital Information Security and Computing Technologies- volume1 ISBN:978-93-5820-321-1, 08-04-22 and 09-04-22