

**Name** : K.Gomathy  
**Designation** : AssistantProfessor  
**Department** : Computer Applications  
**Qualification** : M.C.A.,M.Phil.  
**Experience** : Teaching: 18.9Years  
**Area of Specialization(s)** : **Networking**  
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#### AcademicQualifications

Degree	Branch	Institution/ UniversityName	Yearof Graduation
PhD	Computer Science	P.S.G College of Arts and Science	2024
M.Phil.	ComputerScience	BharathidasanUniversity	2009
M.C.A	Computer Applications	BharathidasanUniversity	2003
B.Sc(Applied Sciences)	Computer Applications	P.S.G CollegeofTechnology	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

#### ResearchGuidance

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

### **Research Publications(Indexed)**

K.Gomathy            “HIPI:AREVIEW            ONHADOOPMAP            REDUCEFRAMEWORK  
USINGIMAGEPROCESSING IN BIGDATA”, International journal of computerscience and  
engineering, Vol.06 ,Issue.08,pp.34-39,Oct-2018 ISSN:2229-5631(IndexedinUGC).

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(IndexedinGoogleScholar)

### **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 Technologies in Computational and Applied Sciences, Vol.1, Special issue, pp 74-77, February 2014, ISSN 2279-0055

### **Presentations in Conference**

1. 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
2. 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
3. Computing Strategies for Green Cloud, International Conference on Computational Intelligence and Communication Technologies, Dr.N.G.P Arts and Science College, 04.01.2024
4. Cyber Security-Challenges and its Emerging Latest Technologies, International Conference on Computational Intelligence and Biological Science, Sri Ramakrishna college for Women, 05.11.2023
5. 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
6. 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
7. IoT ENABLED GARBAGE BIN ,International Conference on Digital Information Security and Computing Technologies in collaboration with LINCOLN university Malaysia , 08-04-22 and 09-04-22

8. IMPROVING DATA BASE SECURITY IN CLOUD COMPUTING, Second International Conference on Research Trends in Computing Technologies, Dr.N.G.P Art and Science College 28-Feb-2020 and 29-Feb-2020
9. SECURING DATA TRANSFER IN CLUSTER BASED WIRELESS SENSOR NETWORKS. National Conference on Emerging Research Trends in Computer Science and Technology at SNMV College of Arts and Science, 29-Jan-20
10. VIRTUAL REALITY AND ITS CHALLENGES , National Conference on Recent Trends and Advances in the Field of Information Technology, Karpagam Academy of Higher Education, 2-Sep-18
11. ROUTING PROTOCOLS : FLYING AD-HOC NETWORKS, International Conference on Engineering and Technology, Rathinam Technical Campus, 30-Aug-18 and 31-Aug-18
12. A REVIEW ON HADOOP MAP REDUCE FRAMEWORK USING IMAGE PROCESSING IN BIG DATA , International Conference on Recent Trends in Computing Technologies, Dr.N.G.P Arts and Science College, Coimbatore, 9-Aug-18 & 10-Aug-18.
13. EDGE COMPUTING, International Conference on Recent Trends in Computing Technologies, Dr.N.G.P Arts and Science College, Coimbatore, 9-Aug-18 & 10-Aug-18
14. ANALYSIS OF VARIOUS SECURITY CHALLENGES IN VEHICULAR AD HOC NETWORKS, National Conference on Recent Trends and Advances in the Field of Information Technology, Karpagam Academy of higher education, 22-Sep-17
15. WI-FI IN AD-HOC NETWORKS, National Conference on Emerging Trends in Computing and Communication, Karpagam University on 17-Feb-17.
16. SURVEY OF CLUSTER BASED KEY MANAGEMENT TECHNIQUES FOR SECURED DATA TRANSMISSION IN MANET, National Conference on Emerging Trends in Big Data Technologies and Research Issues, Dr.N.G.P Arts and Science College, Coimbatore 24-Feb-17.
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.

18. 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.
19. ISSUES OF VARIOUS ATTACKS IN MOBILE AD HOC NETWORKS, National Conference on Recent Trends in Computing Techniques, Arignar Anna College, Salem, 07-Feb-15
20. ANALYSIS OF EFFICIENT ALER TROUTING PROTOCOL IN MANET. International Conference on Big Data Analysis and Distributed Systems, Periyar University College of Arts and Science, Salem, 12-Sep-15
21. 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.
22. A SURVEY OF SECURITY ISSUES IN MANET. National Conference on emerging Computer Technology, Sri Ramakrishna Mission vidhyalya college of Arts and Science, Coimbatore, 23-Sep-14
23. SPLIT MULTIPATH ROUTING WITH MAXIMALLY DISJOINT PATH IN ADHOC NETWORKS, Paper presented in National Conference at Dr.N.G.P Arts and Science College, Coimabore, 21-Feb-14
24. 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
25. 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-Sep-11.

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

### **Participation in Seminars**

1. 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
2. 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**

1. 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
2. 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
3. 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
4. Zero Coding: Data Analytics and Machine Learning for IoT Automation, VIT Chennai, 21-06-21 to 25.06.21
5. INTRODUCTION TO PYTHON PROGRAMMING, ICT Academy, Sri Ram Krishna College of Arts and Science, 17-Dec-18 & 18-Dec-18
6. PYTHON PROGRAMMING, XPLORE ITCORP, Dr.N.G.P Arts and Science College, 14-Oct-17 & 15-Oct-17
7. BIG DATA ANALYTICS USING WEKA, Karpagam University, 3-Mar-15.
8. 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 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-ups among HEIs from 28<sup>th</sup> April to 22nd May 2020

RESEARCH CHALLENGES & SECURITY ISSUES IN WIRELESS NETWORKS (ISTE Sponsored), Dr.N.G.P Institute of Technology, 7-Dec-15 to 11-Dec-15.

### **Participation in Faculty Development Programme**

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 days 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  
REVISED ACCREDITATION FRAMEWORK AND BE 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, 14<sup>th</sup> 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 enabled Garbage Bin in Digital Information Security and Computing Technologies-  
volume 1 ISBN: 978-93-5820-321-1, 08-04-22 and 09-04-22