

Department of ECE
UCE- Ariyalur
Kathankudikadu, Thelur(po),
Ariyalur- 621704
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Mr. K. Nagarajan
Assistant Professor & Head i/c

➤ **Research Area:**

Logical Gates and Devices based on Photonic Crystal and Optical Networks

Educational Qualifications:

Qualification	Department	Year (From - To)	Percentage	Class
Ph.D.,	I & C Engg.	2016 - Doing	-	Pursuing
M.E.,	Optical Communication	2006-2008	72	I Class
B.E.,	Electronics and Communication Engg.	2000-2004	76	I Class

➤ **Experience:**

Name of Company / Institutions	Designation of Post	From	To	Relived on	Experience in Year
		<u>DD-MM-YYYY</u>	<u>DD-MM-YYYY</u>		
UNIVERSITY COLLEGE OF ENGINEERING, ARIYALUR	ASSISTANT PROFESSOR	25-08-2009	Till now	-	13Yrs
ROEVER COLLEGE OF ENGG AND TECH, PERAMBALUR	SR. LECTURER	08-07-2009	24-08-2009	24-08-2009	2Mns
ROEVER ENGINEERING COLLEGE, PERAMBALUR	SR. LECTURER	20-12-2008	07-07-2009	07-07-2009	7Mns
DR. NAVALAR NEDUNCHEZHIAN COLLEGE OF ENGG., THOLUDUR	LECTURER	05-08-2004	04-08-2006	04-08-2006	2Yrs

➤ **Awards:** - Received the Best Paper Award for “Tristate AND Gate using Photonic crystal”, in National Conference On Advanced Research in VLSI and Microprocessor/ Controller (ARIVAM) organized by Department of Electronics and Communication Engineering, Kalasalingam Institute of Technology, Krishnankoil during 26.03.2015

➤ **Additional / Academic Responsibilities at University:**

- a) Deputy Warden (Boys Hostel)
- b) NSS Programming Officer
- c) Exam Cell Coordinator (during 2012 to 2015)

➤ **Professional Activities:**

- a) Organized One Day “Placement Training Program” conducted by Department of Electronics and Communication Engineering, University College of Engineering, Ariyalur on 29.07.2011.
- b) Organized One Day National Level Technical symposium “Electrocalifa 2k12” conducted by Department of Electronics and Communication Engineering, University College of Engineering, Ariyalur on 28.09.2012.
- c) Delivered a special key note address in National level Technical Symposium “Glits 2k13” conducted by Department of Electronics and Communication Engineering, University College of Engineering, Panruti on 20.09.2013.
- d) Organized One Day National Level Technical symposium “Tekpew 2k14” conducted by Department of Electronics and Communication Engineering, University College of Engineering, Ariyalur on 04.09.2014.
- e) Organized One Day National Level Technical Workshop on “Recent Trends and Application of Nano Photonics in Optical Communication” conducted by Department of Electronics and Communication Engineering, University College of Engineering, Ariyalur on 11.10.2014.
- f) Organized One Day National Level Technical symposium “Electrocalifa 2k15” conducted by Department of Electronics and Communication Engineering, University College of Engineering, Ariyalur on 30.09.2015.
- g) Organized One Day National Level Technical symposium “Electrocalifa 2k16” conducted by Department of Electronics and Communication Engineering, University College of Engineering, Ariyalur on 08.09.2016.

- h) Resource Person for Anna University approved Faculty Development Program “EC-6402 Communication Theory” conducted by Department of Electronics and Communication Engineering, MRK Institute of Technology, Kattumannarkoil on 05.12.2016.
- i) Organized One Day National Level Technical symposium “Elcommelfia 2k17” conducted by Department of Electronics and Communication Engineering, University College of Engineering, Ariyalur on 08.09.2017.

➤ **Membership of Scientific and Professional Societies: Nil**

➤ **Fellowships and Grants: Nil**

➤ **Completed B.E/M.E Projects:**

- a) Number of ME Projects Completed: Nil
- b) Number of BE Project Completed: 26 Nos

➤ **PhD Research Projects (Completed): Nil**

➤ **PhD Research Projects (Ongoing): Nil**

➤ **Sponsored Research Activities: Nil**

➤ **Consultancy Activities: Nil**

➤ **List of Seminar / Short Term Course /FDP/ Workshop attended: (Within India)**

- a) Two Days Workshop (2010), “NETWORKING SIMULATORS ”, organized by Dept. of ECE Anna University Tiruchirappalli, BIT Campus during 17-07-2010 and 18-07-2010. (Two Days)

- b)** Two Weeks AICTE Sponsored FDP (2013), "DEVELOPING PEDAGOGICAL SKILLS FOR TEACHERS THROUGH ACTIVE LEARNING TECHNIQUES", organized by Department of Management studies, MAM College of Engineering, Trichy during 10.06.2013 to 22.06.2013. (13 Days)
- c)** Two Weeks Training Program (2014), "TRAINING PROGRAM ON RESEARCH METHODOLOGIES OF INFORMATION AND COMMUNICATION ENGINEERING", organized by Department of Computer Science and Engineering, Meenakshi Ramasamy Engg. College, Thathanur during 12.06.2014 to 22.06.2014. (11Days)
- d)** Three Days TSCST - Chennai Sponsored program (2014), " SCIENCE AND TECHNOLOGY CAPACITY BUILDING FOR INDUSTRIAL NEEDS ", organized by University College of Engineering, Ariyalur during 07.07.2014 to 09.07.2014. (3 Days)
- e)** Two Days National workshop (2014), " RECENT TRENDS IN MICROWAVE AND OPTICAL COMMUNICATION NETWORKS", organized by Department of Electronics and Communication Engg, Mount Zion College of Engineering and Technology, Pudukkottai during 21.08.2014 to 22.08.2014. (2Days)
- f)** Three Days National level workshop (2014), "NETWORKING AND TROUBLESHOOTING", organized by Sparcs at University College of Engineering, Ariyalur during 29.09.2014 to 01.10.2014 (3 Days)
- g)** One Day FDP (2014), "DESIGN TECHNIQUES OF RECONFIGURABLE SYSTEM", organized by Enix Technology at University College of Engineering, Pattukottai during 26.08.2014 (1 Day)
- h)** One Day National workshop (2014), "INFORMATION SECURITY AGAINST HACKING", organized by Department of Training and Placement at University College of Engineering, Ariyalur during 07.10.2014 (1 Day)
- i)** One Week TEQIP sponsored Training Program (2014), "RESEARCH ISSUES IN OPTICAL COMMUNICATION AND NETWORKS", organized by Department of Electronics and Communication Engineering, ACCET, Karaikudi during 03.12.2014 to 09.12.2014. (7 Days)
- j)** One Day workshop (2014), "ETAP SOFTWARE AND ITS APPLICATION", organized by ETAP Automations at University College of Engineering, Ariyalur on 07.10.2014 (1 Day)

- k)** Two Weeks ISTE STTP (2015), "INTRODUCTION TO DESIGN OF ALGORITHMS", organized by Indian Institute of Technology Kharagpur during 27.04.2015 to 30.05.2015. (Two weeks)
- l)** Two Week TEQIP sponsored FDP (2016), "HEURISTIC APPROACH FOR INFORMATION AND COMMUNICATION ENGINEERING RESEARCH PROBLEMS", organized by Bharathidasan Institute of Technology, Anna University, Tiruchirappalli during 15.06.2016 to 25.06.2016. (14Days)
- m)** One Week Orientation Program (2017), "NSS ORIENTATION COURSE", organized by ETI, Madras school of social Works, Chennai during 08.06.2017 to 14.06.2017. (7Days)
- n)** Two Weeks AICTE Approved FDP (2017), "FOUNDATION PROGRAM IN ICT FOR EDUCATION", organized by Indian Institute of Technology, Bombay during 03.08.2017 to 07.09.2017. (Two weeks)
- o)** Two Weeks AICTE Approved FDP (2017), "PEDAGOGY FOR ONLINE AND BLENDED TEACHING –LEARNING PROCESS", organized by Indian Institute of Technology, Bombay during 14.09.2017 to 12.10.2017. (Two weeks)

➤ **International Conferences Participated: Nil**

➤ **Publications :**

a. Books: Nil

b. International Journals: -

- a)** K.Nagarajan and Dr.M.Malleswaran "Design and Analysis of XOR Logic Gate Using Two dimensional Photonic Crystal with Square Lattice Structure" Singaporean Journal of Scientific Research 8(1), Pp 1-5.
- b)** Nagarajan, K & Malleswaran, M 2021, 'High bit rate all - optical 4 to 1 multiplexer by cascading of AND and OR gates in two dimensional photonic crystals', Optical Engineering, Vol. 60, no. 12, p. 127110, ISSN : 0091 - 3286 (Impact factor 1.084). [doi.org/10.1117/1.OE.60.12.127110].
- c)** Nagarajan, K & Malleswaran, M 2022, 'High bit rate with ultra compact design of an all - optical half adder in two dimensional photonic crystals', Optical Engineering, Vol. 61, no. 6, p. 067102, ISSN : 0091 - 3286 (Impact factor 1.084). [doi.org/10.1117/1.OE.61.6.067102].

c. National Journals: Nil

➤ Conferences

a. International Conferences:

- a)** Presented a Paper (2016), on "Performance Analysis of 640Gpbs Capacity Wavelength Division Multiplexing Passive Optical Network", International Conference on Emerging Trends In Electrical, Electronics And Communication Systems (ICEEECS), organized by University College of Engineering, BIT, Anna University, Tiruchirappalli during 24.09.2016 to 26.09.2016.

- b)** Presented a Paper (2018), on "Design and Analysis of Tristate OR logic gate using square lattice in 2D photonic crystal", International Conference on Engineering materials and renewable energy (ICEMRE), organized by University College of Engineering, Villupuram during 04.01.2018 to 05.01.2018.

b. National Conferences:

- a)** Presented a Paper (2012), on "People Tracking System Using Background Estimation", National Conference On Advancement in electrical power, signal processing and communication network systems (ESCON), organized by Department of ECE and EEE, Selvam College of Technology, Namakkal during 09.03.2012 and 10.03.2013.

- b)** Presented a Paper (2012), on "Counter for Ingression and Egression Using Edge Detection Algorithm", National Conference On Innovations In Electrical, Electronics And Communication Engineering, organized by Department of ECE and EEE, Roever Engineering College, Perambalur on 22.03.2012.

- c)** Presented a Paper (2013), on "High Channel capacity in optical networks by OADM Based DWDM Technology", National Conference On Emerging Trends in communication Systems (ETCS), organized by Department of ECE, Dr. NNCE, Tholudur on 12.04.2013.

- d)** Presented a Paper (2015), on "Design of logic gates in Photonic crystal", National Conference On Advanced Intelligent Computing and Applications organized by Department of Computer Science and Engineering, Meenakshi Ramasamy engineering College, Thathanur on 09.02.2015.

- e)** Presented a Paper (2015), on “Tristate AND Gate using Photonic crystal”, National Conference On Advanced Research in VLSI and Microprocessor/ Controller (ARIVAM) organized by Department of Electronics and Communication Engineering, Kalasalingam Institute of Technology, Krishnankoil on 26.03.2015.
- f)** Presented a Paper (2015), on “Design and Analysis of Tristate OR logic gate in Photonic crystal”, National Conference On Emerging Trends in communication Systems(ETCS), organized by Department of ECE, Dr.NNCE, Tholudur on 27.03.2015.
- g)** Presented a Paper (2015), on “Trust Enhanced Anonymous Privacy Preserving Routing for MANETs ”, National Conference On Emerging Trends in communication Systems (ETCS), organized by Department of ECE, Dr.NNCE, Tholudur on 27.03.2015.
- h)** Presented a Paper (2016), on “Performance Analysis of 160Gpbs Capacity Wavelength Division Multiplexing Passive Optical Network”, National Conference On Advanced Computing Techniques on Power Conversion and control Systems(ACTOPCCS) organized by Department of Electronics and Communication Engineering, University College of Engineering, Ariyalur on 16.03.2016.

DECLARATION:

I CERTIFY THAT THE INFORMATION FURNISHED ABOVE IS CORRECT TO THE BEST OF KNOWLEDGE AND BELIEF.

DATE:

Signature With date