

**Department of Computer Science and Engineering  
Anna University Regional Campus-Tirunelveli  
Tirunelveli 627007**

**Contact no: +91 - 9884681415**

**Mail. ID: [navabarathy.m@auttv.ac.in](mailto:navabarathy.m@auttv.ac.in)  
[navabarathym@gmail.com](mailto:navabarathym@gmail.com)**



**Dr.M.Nava Barathy  
Assistant Professor (Sr.Gr)**

➤ **Research Area:**

Multimedia Sensor Networks, Image Processing

➤ **Research Interest:**

Image and Video Processing, Wireless Multimedia Sensor networks, Machine Learning and Deep Learning Techniques

➤ **Educational Qualifications:**

<b>Qualification</b>	<b>Department</b>	<b>University</b>	<b>Year (From -To)</b>	<b>Class</b>
B.E CSE	Dept. of CSE, Government Engg college, Tirunelveli	Manonmanium Sundaranar University	1998-2002	First
M.E Software Engineering	Dept. of CSE, Guindy Campus, Chennai	Anna University	2002-2004	First
Ph.D.	Computer Science and Engineering	Anna University	2013 - 2021	First

➤ **Experience: 19 years 6 months**

<b>Name of Company / Institutions</b>	<b>Designation of Post</b>	<b>From</b>	<b>To</b>	<b>Relived on</b>	<b>Experience in Year</b>
RVS Engineering College, Dindigul	Lecturer	10.06.2004	06.12.2004	06.12.2004	6 M
Dr.MGR University, Chennai	Lecturer	20.12.2004	02.03.2007	23.04.2007	2 Y 2 M
SRM University, Chennai	Lecturer	26.02.2007	31.12.2007	31.12.2007	10 M
Sona College of Technology, Salem	Senior Lecturer	9.07.2008	21.08.2010	21.08.2010	2 Y 1 M
Anna University Regional Campus, Tirunelveli	Assistant Professor	23.08.2010	Till now	-	12 Y

➤ **Awards and Achievements:**

- a. Acted as a Resource person in Six Days Online FDP on “Machine Learning and Internet of Things in Engineering Systems” at Stella Marry’s Engineering College on 16.12.2023
- b. Acted as a Resource person in Tamil Nadu State Government Sponsored Five Day Offline FDP on “DATA SCIENCE USING PYTHON” organized by Faculty Development Training Centre, Government College of Technology, Coimbatore in association with Department of Computer Science, Government Polytechnic College, Sevvapet from 6<sup>th</sup> to 10<sup>th</sup> November 2023.
- c. Chief guest for the technical symposium organized by Dept of CSE, Nellai Engineering College, Tirunelveli on June 9<sup>th</sup> 2022.
- d. Toppers certificate received for Team based project (TOP) activity under the guidance of Prof. Subir Kumar Saha, Professor, Dept. of Mechanical Engineering, IIT Delhi in Five Days online FDP on “Research Avenues and Challenges in Industry 4.0” organized by PMMMNMTT in collaboration with Shri Maha Vaishno Devi University, J & K from 31<sup>st</sup> Jan 2022 to 4<sup>th</sup> Feb 2022.
- e. Acted as a Resource person in Anna University sponsored six Days Faculty Development Training Program on “Digital Image Processing” organized by St.Joseph’s College of Engineering, Chennai, on 10.06.2021.
- f. Acted as Judge for TECH EXPO 2019 at GCE, Tirunelveli on 13.02.2019.
- g. Mentor of the student project titled “Character recognition from palm leaf manuscript” won the second prize in Two-Day project expo on energizing future India organized by Kudankulam Nuclear Power Project, Tirunelveli on 3<sup>rd</sup> and 4<sup>th</sup> Sep 2015.
- h. Mentor of the student project titled “Low memory Device enhancer with battery saver” won the second prize in Two-Day project expo on energizing future India organized by Kudankulam Nuclear Power Project, Tirunelveli on 3<sup>rd</sup> and 4<sup>th</sup> Sep 2015.

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

- a. Training and Placement Officer from June 2023.
- b. Faculty Incharge for Feedback from June 2023.
- c. Faculty Incharge for Mentor Mentee in the academic year Jan 2021 – June 2021.
- d. Doctoral Committee Member for Ph.D Research Scholars of Anna University.

- e. Acted as Faculty Incharge of PoSH cell w.e.f 07.02.2020, University College of Engineering – Nagercoil.
- f. Acted as Chief Superintendent, Anna University Regional Campus – Tirunelveli from 01.11.2018 to 31.02.2019.
- g. Member, Inspection Committee for Affiliation of Institutions, Anna University, Chennai
- h. Acted as Chief AUR, AUR for the conduct of Anna University Theory Examinations.
- i. Member, Squad Team for Anna University Examinations.
- j. Answer Key setter for erstwhile University Departments, Anna University, Chennai and Autonomous Colleges affiliated to Anna University.
- k. Question Paper Setter for erstwhile University Departments and Affiliated Colleges of Anna University
- l. Coordinator of Women Empowerment Cell, Anna University Regional Campus- Tirunelveli from 01.01.2016 to 31.01.2018.
- m. Acted as one of the coordinators for CSE department student technical association “TechSociety”.
- n. Acted as Timetable coordinator for CSE department.
- o. Acted as Lab Incharge.
- p. Acted as Anna University Lab External Examiner, External Viva Voce examiner for UG and PG.
- q. Carried out Anna University Exam Theory Examination Hall invigilation duty.
- r. Acted as class advisor and class committee chairperson for UG and PG classes in CSE department.
- s. Acted as class committee chairperson for other department -M.E Applied Electronics.
- t. Acted as project coordinator in CSE department for UG and PG project phases.
- u. Acted as a committee member in organizing graduation day.

➤ **Professional Activities:**

- a. Handled sessions in Faculty Development Programs
- b. Coordinator of Workshop and Conference

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

- Life Member, Indian Society for Technical Education

➤ **Completed B.E/M.E Projects:**

a. Number of ME Projects Completed: 65 Nos

b. Number of BE Project Completed: 28 Nos

➤ **PhD Research Projects (Ongoing): 02**

S. No.	Reg. No	Name of the Scholar	Mode of Study	Proposed Title for Research
1	22234897274	M.BAGYA LAKSHMI	PT	PRIVACY AND SECURITY IN THE FRAMEWORK OF FEDERATED LEARNING BASED E-HEALTH SECTOR
2	24244891567	D. BERYL GIFTY MONISHA	PT	AN ARRHYTHMIA CLASSIFICATION MODEL BASED ON DEEP LEARNING WITH TRANSFORMER AND ATTENTION MECHANISM

➤ **List of Seminar / Short Term Course /FDP/ Workshop attended: (Within India) : 51**

- a. Two Day training program conducted by The Raina AI Lab (RAIL) in collaboration with IIT Madras & Tamil Nadu Skill Development during 14th and 15th October, 2023.
- b. Anna University Chennai sponsored six days Faculty Development Training Programme on “CS3501 – Compiler Design”, during 31.07.2023 to 05.08.2023 organized by Department of Computer Science and Engineering, National Engineering College, Kovilpatti.
- c. One-week workshop on “Designing and Modelling of IoT, AI & ML Systems” organized by AICTE, ATAL Academy, Arm Education and STMicroelectronics from August 1<sup>st</sup> to 5<sup>th</sup> 2022.
- d. Completed 8 module course organized by National Initiative for Technical Teachers Training (NITTT) on Feb 2023.
- e. Two-Week hands-on Industrial Training for Government officials on “Cyber security essentials” under NASSCOM Future Skills PRIME Programme organized by C-DAC and Ministry of Electronics and Information Technology, Govt. of India, from Jun 20, 2022 to Jul 01,2022. (2 Weeks).
- f. Online Six Day Faculty Development Programme on “CS8074 Cyber Forensics” organized by Anna University Regional Campus – Tirunelveli during 17<sup>th</sup> – 22<sup>nd</sup> January 2022 and sponsored by Centre for Faculty Development, Anna University, Chennai.

- g. Online five Day FDP on “Research Avenues and Challenges in Industry 4.0” organized by Faculty Development Centre (PMMMNMST Scheme) in collaboration with School of Mechanical Engineering, Shri Mata Vaishno Devi University, J&K.
- h. AICTE Training and Learning (ATAL) Academy Online Advanced FDP on “Principles of Artificial Intelligence, Machine Learning, and Deep Learning” at Department of Studies in Computer Science from 26/11/2021 to 30/11/2021.
- i. Six Day online FDTP on “Problem Solving and Python Programming” at Sona College of Technology from 26/07/2021 to 31/07/2021.
- j. AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Research Trends in Computer Vision and Natural Language Processing” at The NorthCap University from 19/07/2021 to 23/07/2021.
- k. AICTE Training and Learning (ATAL) Academy Online Elementary FDP on “Augmented Reality & Virtual Reality” at Birla Vishvakarma Mahavidyalaya Engineering College from 21/06/2021 to 25/06/2021.
- l. AICTE online short-term training program on “Applied Soft computing and vision Machine Techniques, organized by MGR Educational and Research Institute during 26<sup>th</sup> April to 1<sup>st</sup> May 2021.
- m. Five Days workshop on “Women in cyber security and privacy in 2020” organized by St. Martin Engineering College, Secunderabad from 6<sup>th</sup> to 10<sup>th</sup> July 2020.
- n. Three-Weeks Industrial Training on “Communication and Networking Technologies” organized by RGMSTC, BSNL, Meenambakkam, Chennai from 01.06.2020(Monday) to 19.06.2020(Friday). (3 Weeks)
- o. One Week Faculty Development Programme on R organized by Thiruvalluvar University college of Arts and Science, Arakkonam in association with IIT Bombay Spoken Tutorial from 21.05.2020 to 27.05.2020. (1 Week)
- p. Two Week FDP on “Managing Online classes and co-creating MOOCs” organized by Teaching Learning Centre, Ramanujan College, University of Delhi and sponsored by Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNMST), MHRD, GOI from 20.04.2020 to 06.05.2020. (2 Weeks)
- q. One-Day webinar on “Exploring Grants Funding Award and Scholarships in IEEE” organized by IEEE Madras Section on April 20,2020.

- r. Six Day Faculty Development Programme on Cyber Forensics conducted during 11<sup>th</sup> – 16<sup>th</sup> May 2019 and sponsored by Centre for Faculty Development, Anna University, Chennai. (1 Week)
- s. 12 Week NPTEL Course on “Joy of Computing in Python” organized by IIT Kharagpur and funded by MHRD during August to October 2018. (12 Weeks)
- t. Three days FDP (2018) for Student Induction (FDP – SI), organized by AICTE at Panimalar Engineering College from 27 – 29 August 2018.
- u. Two Week Course (FDP301x) (2018), “Mentoring Educators in Educational Technology”, organized by IIT Bombay and funded by Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNTT), MHRD, GOI at Anna University Regional Campus – Tirunelveli from 17<sup>th</sup> May to 5<sup>th</sup> July 2018. (2 Weeks)
- v. 12 Week NPTEL Course (2018) on “Introduction to Internet of Things”, organized by IIT Kharagpur and funded by MHRD from January to April 2018. (12 Weeks)
- w. One Week Faculty Development Programme (2017), “CS6001 - Distributed Systems”, organized by Department of CSE, Anna University Regional Campus - Tirunelveli and funded by CTDT, Anna University, Chennai from 27<sup>th</sup> November to 3<sup>rd</sup> December 2017. (1 Week)
- x. Two Week FDP (FDP201x) (2017) on “Pedagogy for Online and Blended Teaching - Learning Process”, organized by IIT Bombay and funded by Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNTT), MHRD, GOI from 14<sup>th</sup> September 2017 to 12<sup>th</sup> October 2017. (2 Weeks)
- y. Two Week FDP (FDP101x) (2017) on “Foundation Program in ICT for Education”, organized by IIT Bombay and funded by Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNTT), MHRD, GOI from 3<sup>rd</sup> August to 7<sup>th</sup> September 2017. (2 Weeks)
- z. Two-Day Hands-on Workshop (2017), “Python Programming”, organized by Anna University Regional Campus – Tirunelveli and sponsored by Centre for Faculty Development, Anna University, Chennai from 21<sup>st</sup> August to 22<sup>nd</sup> August. (2 Days)
- aa. One-day workshop on "Deep Learning", organized by Department of IT, Mepco Schlenk Engineering College, Sivakasi on 29.07.2017 (1 day).
- bb.(2016), “Train the Trainer program on "Foundation skills in integrated product development (FSIPD)”, organized jointly by Centre for Faculty Development, Anna

- University, Chennai, Tamil Nadu State Council for Technical Education and NASSCOM from 26.03.2016 to 30.03.2016. (4 days)
- cc. One-day Seminar (2015), "Submission of Project Proposals to Funding Agencies and Promotion of Consultancy Activities", organized by Government College of Engineering, Tirunelveli on 22<sup>nd</sup> August. (1 Day)
- dd. Two-day International workshop (2015) on "Scopes and Challenges of scientific Technology intervention in Indian Medicine" organized by Anna University Regional campus, Tirunelveli & Govt Siddha Medical College from 06.08.2015 to 07.08.2015. (2 Days)
- ee. Two-day workshop on "Cloud OpenStack KILO" organized by Anna University Regional campus, Tirunelveli from 29.10.2015 to 30.10.2015. (2 Days)
- ff. Two-day Technical seminar on "Video Analytics" organized by MEPCO, SIVAKASI from 18.09.2015 to 19.09.2015. (2 Days)
- gg. Conducted a two-day International workshop and conference on Research Contributions in Technology and Applications 2015 organized by Anna University Regional campus, Tirunelveli from 27.03.2015 & 28.03.2015. (2 Days)
- hh. Delivered lecture on "Computer Training Programme on Microsoft Power point and Excel for the staff of Police staff" organized by Anna University Regional campus, Tirunelveli on 19.06.2015.
- ii. One-day National Seminar (2014), "High Impact Journal Writing and Publishing", organized by Department of EEE, Regional Centre, Anna University, Tirunelveli on 25<sup>th</sup> September. (1 Day)
- jj. Two-day ISTE e-seminar on "Step 2 research" organized by DCSE, Amal jyothi College of Engineering, Kanjirappally & ISTE Kerala section at AURCT, Tvl on 10.09.2014 & 20.09.2014.
- kk. Two days' workshop on "Video analytics" organized by MIT Campus, Anna University, Chennai from 10.10.2014 to 11.10.2014
- ll. Two Week ISTE Workshop (2014), "Signals and Systems", organized by IITK at Regional Centre, Anna University, Tirunelveli from 2<sup>nd</sup> to 12<sup>th</sup> January. (2 Weeks)
- mm. Two-day program on "Android workshop" organized by Park Lab, Anna University Regional Campus, Tirunelveli from 27.02.2014 & 28.02.2014. (2 days)

- nn. Two - week ISTE workshop on "Computer Networking" organized by IIT Bombay at Anna University Regional Campus, Tirunelveli from 30.06.2014 to 05.07.2014. (14 days)
- oo. One-day Seminar (2013), "Importance of Free and Open Source Software", organized by Regional Centre, Anna University, Tirunelveli on 22<sup>nd</sup> October. (1 Day)
- pp. Two days' workshop on "Hands on approach to proficient document writing using LATEX" organized by DCSE, Anna University Regional Campus, Tirunelveli from 12.11.2013 to 13.11.2013. (2 days)
- qq. Three days' workshop on "Soft computing Techniques and its applications" organized by Department of ECE, Anna University Regional Campus, Tirunelveli from 4.03.2013 to 6.03.2013. (3 days)
- rr. Two-day Workshop (2014), "Introduction to Wavelets and its Applications", organized by the Department of ECE, Regional Centre, Anna University, Tirunelveli from 7<sup>th</sup> and 8<sup>th</sup> February. (2 Days)
- ss. One-day Workshop (2013), "NPTEL Workshop", organized by Regional Centre, Anna University, Tirunelveli on 20<sup>th</sup> April. (1 Day)
- tt. Two-week ISTE workshop on "Database Management systems" organized by IIT Bombay from 21.05.2013 to 31.05.2013 (14 days)
- uu. FTDP on "Mobile and Pervasive computing" organized by Anna University Regional Campus, Tirunelveli from 4.06.2013 to 10.06.2013 (7 days)
- vv. Two days National Seminar on "Research Motivation - A perspective" organized by NEC, Kovilpatti from 30.11.2012 & 01.12.2012. (2 days)
- ww. Two Day Workshop (2012), "Hands on Approach to Wireless Network Simulation using NS2", organized at Regional Centre, Anna University, Tirunelveli from 4<sup>th</sup> to 5<sup>th</sup> December. (2 Days)
- xx. Two-day ISTE Workshop (2012), "AAKASH for Education", organized by Regional Centre, Anna University, Tirunelveli from 10<sup>th</sup> to 11<sup>th</sup> November. (2 Days)
- yy. One week FDP on "Digital Signal Processing" organized by Anna University Regional Campus, Tirunelveli from 07.12.2012 to 13.12.2012 (7 days).



➤ **Publications:**

➤ **International Journals: 2**

- a. M.Nava Barathy, Dejeý,” Two-level data aggregation for WMSNs employing a novel VBEAO and HOSVD”, Elsevier Journal of Computer Communications, volume 149, (2020), pp. 194-213 (DOI: 10.1016 /j.comcom.2019. 10.013).
- b. M.Nava Barathy, Dejeý,” A Novel Protein Sequence Alignment Based Patch Similarity Estimation for Two-Level Data Aggregation in WMSNs”, Springer, Wireless Personal Communications, volume 117, (2021), pp. 2265 (DOI :10.1007 /s11277 -021-08 367-6).

➤ **Conferences**

**a. International Conferences: 7**

- a. U.Raja Rajeshwari, **M.Nava Barathy**, “Fuzzy based congestion control for WMSN”, Proc of International on advances in Engineering research, 17<sup>th</sup> May 2015.
- b. E.Abinayalakshmi, **M.Nava Barathy**, “Improve the accuracy of software defect prediction using classifiers” at Anna University, BIT campus, Trichy in the International Conference on Computational Intelligence (ICCI2015) from 7<sup>th</sup> and 8<sup>th</sup> April 2015.
- c. A.Ponselvi, **M.Nava Barathy**, “Source anonymous message authentication algorithm for source privacy in WSN”, International Conference on Information, Computing and Communication, 6<sup>th</sup> and 7<sup>th</sup> March 2015.
- d. M.Mathiyarani, **M.Nava Barathy**, “An enhancing the correctness and trustworthiness of aggregated data using trust based framework in WMSNs”, in International Conference on “Recent trends in Engineering and Technology, CSI Institute of Technology, Thovalai in association with IEEE student chapter, Madras section during 13<sup>th</sup> – 14<sup>th</sup> March, 2014.
- e. N.Senthil Murugan, **M.Nava Barathy**, “Segmentation of the Heart and great vessels in CT images using curvelet transform” International Conference on Emerging trends in Information and communication Engineering, 6<sup>th</sup> April 2013.
- f. S.Jeyam, **M.Nava Barathy**, “Improving diversity multiprocessing delay tradeoff in wireless networks using ARQ mechanism”, Proc. Of International Conference on

emerging trends in Information and Communication (ICEICE'13) held at CAPE institute of Technology, 2013.

- g. J.Jenifa, **M.Nava Barathy**, "Computing energy sensor networks using linear array approach" in proceedings of International Conference on Intelligent Science and Technology , 2012, pp.no.139.

**b. National Conferences: 9**

- a. M.Tamilarasi, M.Nava Barathy "Software effort estimation models: A comparative analysis" at Government college of Engineering, Tirunelveli in the 11<sup>th</sup> National conference on High performance computing on 9<sup>th</sup> April 2015.
- b. M.Tamilarasi, **M.Nava Barathy**, "Improve the accuracy of software defect prediction using classifiers", Proc. Of International Conference on "Computational Intelligence" held at AU Bharathidasan Institute of Technology Campus, Trichy on 7<sup>th</sup> and 8<sup>th</sup> April 2015, pp. 564-568.
- c. Karthika.G, **M.Nava Barathy** , "Survey on Enhancing energy efficiency using scheduling in WMSNs", Proc. of National Conference on Computing and Communication, 3<sup>rd</sup> and 4<sup>th</sup> of April 2014, pp. 83-89.
- d. Karthiga.G, **M.Nava Barathy**, "Improving lifetime of the camera sensors using scheduling in WMSNs", Proc. of National Conference on recent trends in Advanced intelligent Computing and Communication held at Mahadevi Bharathiyar College of Eng., and Technology, 2014.
- e. Mathiyarani M, **M.Nava Barathy**, "Survey on enhancing the correctness and trustworthiness of aggregated data using trust based framework in WMSNs, Proc. of National Conference on Computing and Communication, April 2014, pp. 96-101.
- f. S.Harihara Suthan ,**M.Nava Barathy**, "Automatic detection of vehicle from traffic scene using AND-OR-GRAPH", National Conference on Novel Computing, March 2014.
- g. M.S.Deepika, **M.Nava Barathy**, "Increasing network lifetime using HABC in WSN", 3<sup>rd</sup> National conference on advanced VLSI ,Image Processing and Communication system held at Einstein College of Engineering on 4<sup>th</sup> April 2013,.

- h. E.Jayavathy ,**M.Nava Barathy**, “Bandwidth utilization for zigbee cluster tree networks”,4<sup>th</sup> national conference proceeding on Info science and Engineering held at PSN College of Engineering and Technology on 8<sup>th</sup> April 2013.
- i. P.Thanuja, **M.Nava Barathy**, “Local texture and global statistical features based image authentication scheme”, National conference on emerging trends in computing technologies,14<sup>th</sup> March 2014.

**DECLARATION:**

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

DATE: 23.05.2024

Signature with date