

Name : Dr.N.SATHYA
Designation : Associate Professor
Department : Artificial Intelligence & Machine Learning
Qualification : M.Sc., M.Phil., Ph.D.
Experience : Teaching: 18 Years Industry: NIL
Area of Specialization(s) : Artificial Intelligence
Email (Official ID) : sathyan@drngpasc.ac.in



Research: 12 years

Academic Qualifications

| Degree | Branch | Institution / University Name | Year of Graduation |
|---------|------------------|--|--------------------|
| Ph.D. | Computer Science | Bharathiar University, Coimbatore. | 2020 |
| M.Phil. | Computer Science | Periyar University, Salem. | 2007 |
| MSc | Computer Science | Vels College of Science, University of Madras, Chennai. | 2006 |
| BSc | Computer Science | Holy Cross College, Bharathidasan University, Trichirapalli. | 2003 |

Patents Published

| Title of the Patent | Agency | Status | Date |
|---|-----------------------------|-----------|-----------|
| Prediction of Water Flow Depth using Machine Learning | Intellectual Property India | Published | 10-Jan-25 |
| A Smart vehicle running by renewable energy sources | Intellectual Property India | Published | 25-Mar-22 |
| Artificial Intelligence Technique to automate the process of Steel Making | Intellectual Property India | Published | 12-Aug-22 |

Additional Qualifications

| Diploma/Vocational/Certification | Area of Specialization | Institution/University/Agency | Year |
|----------------------------------|------------------------------|-------------------------------|------|
| Certification | Deep Learning for Developers | Infosys Springboard | 2025 |

| | | | |
|---------------|---|--|------|
| Certification | Short Term Course on "Machine Intelligence and Vision Algorithms" | NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA | 2024 |
|---------------|---|--|------|

Research Guidance

| Programme | No. of Scholars | |
|-----------|-----------------|----------|
| | Completed | Pursuing |
| Ph. D. | - | - |
| M. Phil. | 5 | - |

Book Publications

| S.No | Title of Books/Chapter published | ISBN Number Proceeding | Name of the Publisher | Month & Year of Publication |
|------|--|------------------------|-------------------------|-----------------------------|
| 1 | Python Programming | 978-93-92229-10-7 | Enas Publications | 2023 |
| 2 | Recent Trends in the field of Computer Science and Information Technology | 978-93-5577-685-3 | Charulatha Publications | 2023 |
| 3 | Intelligent Automation Control for Scientific Research in Engineering Volume-I | 978-939-0-95691-3 | SS PUBLISHING HOUSE | May-22 |

Research Publications (Indexed)

International

- Dr.N.Sathya, Dr.K.Santhi, **Improved Nature Inspired Intelligence Techniques for Shortest Path Routing in Network Problems**, Tuijin Jishu/Journal of Propulsion Technology ISSN: 1001-4055, Vol. 44 No. 6 (2023), December 2024.(Scopus indexed).
- Dr.N.Sathya and Dr.Gomathe Muthukumar, **Homomorphic Map Based Salt Encryption and Decryption for Secured Cloud Data Storage and Accessibility**, Dogo Rangsang Research Journal, Vol-10, Issue-12 ,No. 03,pp.1-8, December 2020, ISSN : 2347-7180. (UGC Care

Group I Journal).

- N.Sathya, R.Frizilin and Dr.A.Muthukumaravel , **Feature Extraction Techniques Based On Color and Shape-A Survey Meta Heuristics Approach For A Class Of Supply Chain Optimization Problems**, Journal of Advanced Research in Dynamical & Control Systems, Vol. 9, No. 5 ,pp. 180- 184, 2017,ISSN 1943-023X.(Indexed in SCOPUS).
- N.Sathya and Dr.A.Muthukumaravel, **Feed Forward Neural Networks For Shortest Path Routing In WSNs**, IEEE Conference (ID: 40353), March 2017, pp. 2879-2883, ISSN 0973-7529(Indexed in SCOPUS).
- N.Sathya and Dr.A.Muthukumaravel, **Three Phase Hybrid AI-Heuristics for mTSP in Network Problems**, Journal of Advanced Research in Dynamical & Control Systems, Vol. 15 Special Issue, pp. 592-596, October -2017, ISSN 1943-023X(Indexed in SCOPUS).
- N.Sathya and Dr.A.Muthukumaravel, **Two Phase Hybrid AI-Heuristics for Multiple Travelling Salesman Problem**, International Journal of Applied Engineering Research, Vol.12, No.22, pp. 12659-12664, 2017, ISSN 0973-4562(Indexed in SCOPUS).

National

- Dr.N.Sathya, B.S.Dev Prasad, S.Shankar and R.Prakash Raj , **A STUDY ON SAFETY MEASURE'S IN ETHICAL HACKING**, Book Title: Intelligent Automation Control For Scientific Research In Engineering – VOLUME I, ISBN NO: 978-939-0-95691-3, VOL 1/ISSUE 2/ MAY-22.
- N.Sathya and Dr.A.Muthukumaravel and K.Sharmila, **Travelling Salesman Problem Using Improved Operation Research Techniques**, Journal of Information and Computational Science(JOICS),Vol. 9, Issue 11,pp 552-560, Nov-19, ISSN: 1548-7741(UGC approved)
- N.Sathya, D.Sabareeswari and K.Sharmila, **Meta Heuristics Approach For A Class Of Supply Chain Optimization Problems**, International Journal Of Innovative Research In Management, Engineering And Technology(IJIRMET), Vol. 2 Issue 7,pp 33-39, Jul-17 , ISSN (Online): 2456- 0448,(GOOGLE SCHOLAR).
- N.Sathya and Dr.A.Muthukumaravel, **A Survey Of Travelling Salesman Problem Using Heuristic Search Techniques**, International Journal of Innovative Research in Computer and Communication Engineering (IJRCCE), Vol. 4, Issue 1, pp 847-851,Jan-16,ISSN(Online): 2320-9801,ISSN (Print): 2320-9798(GOOGLE SCHOLAR).
- N.Sathya and Dr.A.Muthukumaravel,**A Review Of the Optimization Algorithms on Travelling Salesman Problem**, Indian Journal Of Science and Technology (INDJST),Vol

8(29),pp. 1-4, Nov-15, ISSN (Print) : 0974-6846,ISSN (Online) : 0974-5645(Indexed in SCOPUS).

- N.Sathya, R.Velkumar and Dr.A.Muthukumaravel, **Web Service to Execute A Data mining Task**, International Journal of Latest Trends in Engineering and Technology (IJLTET), Vol. 3 Issue 1,pp 150-153,Sep-13, ISSN: 2278-621X(GOOGLE SCHOLAR).

Presentations in Conference

- **AI-Driven Natural Language Processing for Heart Patient Care in Healthcare Systems**, International Conference on Computational Intelligence and Communication Technologies ICCICT-2K25, Dr.N.G.P. Arts and Science College, Coimbatore, 03-Jan-25.
- **Robotic Process Automation incorporated with AI and CNC's**, National Conference on IoT for Agriculture Innovation and Environment Sustainability, Dr.N.G.P. Arts and Science College, Coimbatore, 25-Aug-22 and 26-Aug-22.
- **Two Phase Hybrid AI-Heuristics for Multiple Travelling Salesman Problem**, International Conference on Recent Trends In Computing Technology, Bharath University, Chennai, 21-Apr-17.
- **Feed Forward Neural Networks for shortest path routing in WSNs**, 4th International Conference on "Computing for Sustainable Global Development", at Bharati Vidyapeeth's Institute of Computer Applications and Management, IEEE Conference ID: 40353, New Delhi, March 2017.
- **Using Operation Research Techniques to Solve the Travelling Salesman**, 5th International Conference on "COMPETENCY BUILDING STRATEGIES IN BUSINESS AND TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT", Sri Ganesh School Of Business Management, Salem, Feb-2016.
- **A Survey of Travelling salesman problem using Optimization algorithms**, International conference on innovative technologies of Computing Sciences, Vels University, Chennai, April 2015.
- **The State of Supply Chain Management**, 4th International Conference on Competency Building Strategies in Business and Technology for Sustainable development", Sri Ganesh School Of Business Management, Salem, Feb-2015.
- **A Review of the optimization algorithms on Traveling Salesman problem**, Second International Conference on Innovations in Contemporary IT Research, Quiademilleth college for women, Chennai, Feb-2015.

Participation in Conference

International

- **Spellbinding Evolution of Natural Language Processing and its impact on Human-Computer Interaction**, International Conference on Computational Intelligence and Communication Technologies (ICCICT-2K24) on 4-Jan-24.
- **GPS Using Human Racking** ,International Conference On Recent Trends In Computing Technology, Bharath University, Chennai, 21-Apr -17.
- **Meta Heuristics Approach For a Class of Supply Chain Optimization Problems**, International Conference On Recent Trends In Computing Technology, Bharath University, Chennai, 21- Apr-17.

National

- **Optimizing Healthcare Delivery through Advanced Data Analysis**, NATIONAL CONFERENCE ON NEXT GEN INFORMATION SCIENCE, COMMUNICATION & TECHNOLOGY (NGISCT-2024), SRM Institute of Science and Technology, Ramapuram, Chennai, 4-Oct- 24.
- **ICT Academy Bridge'24** held on 20-Aug-24 at Le Meridian, Coimbatore.
- **Artificial General Intelligence: Autonomous Systems Reaching Human- level Intelligence**, National Conference on emerging Trends in Artificial Intelligence (NCETAI-2024), Sengamala Thayaar Educational Trust Women's College, Mannargudi, 19-Feb-24.
- **Election Prediction using Machine Learning in Python**, National Virtual Conference on Emerging Trends & Technologies in Information Technology (NCETTIT 2022), Vels University, 24-Feb-22.
- **Intelligence Techniques For Shortest Path Routing In Network Problems**,Emerging trends in Computer Science and Information Technology, Vels University, 21-Apr-16.
- **Ubiquitous Networking**, National Conference on Emerging Trends in Computer Applications and Management, Vinayaga Missions University, 30-Mar-11& 31-Mar-11.

Participation in Seminars

- Attended National Level Short term Training Program on **Java Full Stack with React JS & AI** organized by KG College of arts and Science, Coimbatore,2-Dec-24 to 22-Dec-24.

- **Youth Leadership Summit 2024**, Coimbatore, Coddissia Trade Fair complex, ICT Academy, 23-Oct-24.
- Technical Seminar and Training Program on **Security and Forensic Computing**, Putra Inteltek International college, Malaysia, 2-Jun-17.
- **Research Tools and Techniques in Computer Science**, Presidency College, Chennai, 5-Aug-14.
- One Day Seminar on **Emerging Trends in Communication systems** and Technologies, IEEE Communications Society, 09-Oct-12.
- The National Seminar on **Changing Dynamics in Commerce**, Information technology and Business Administration, Annai Velankanni's College of Arts And Science, Chennai on 23-Feb-11.

Participation in Workshop

- 5 Days National Level e-Workshop on **"Innovative Techniques in SPSS and Data Analysis"** organized by the Department of Visual Communication, Sathyabama Institution of Science and Technology, Chennai on 3-Mar-22 to 7-Mar-22 in association with Institution's Innovation Council.
- One day **N-ptel E-Awareness** Workshop organized by N-ptel on 6-Jan-22.
- One day National level workshop on **"Art of Writing Research Article and Journal Publications"**, Vels University, Chennai, 19-Mar-16.
- One day National level workshop on **"MATLAB"**, HCL Career Development Centre in Bharath University, Chennai, 18-Mar-16.
- International Workshop on **Mobile Application Design and Development for Android**, Vels University, 29-Jun-15.
- National Level Technical Workshop on **Network Simulator – 2 [NS-2]**, Bharath University, Chennai, 25-Mar-15.
- **Emerging Tools of Mobile Technologies**, Glister Technologies Solutions Private Limited, Bharath University, Chennai, Mar-2015.
- **R Tool**, Loganatha Narayanasamy Government College, Ponneri, 05-Sep-14.
- Two week workshop on **"Database Management Systems"**, IIT Bombay, Vels University, Chennai, 21- May-13 to 31- May-13.
- **Two –day ISTE workshop**, IIT Bombay, Vels University, Chennai, 10-Nov-12 and 11-Nov-12.
- International Workshop on **Research Methodology**, Vels University, Chennai, 09-Aug-12.

Conference / Seminar / Workshop Organized

- Registration Committee Convenor, International Conference on Computational Intelligence and Communication Technologies (ICCICT-2K25) on 3-Jan-25.
- Proceedings Committee Member, International Conference on Computational Intelligence and Communication Technologies (ICCICT-2K24) on 4-Jan-24.
- Committee Member, National Conference on Faculty of Commerce, Dr.N.G.P. Arts and Science College, Coimbatore, 27-Feb-20.
- Committee Member, Emerging trends in Computer Science and Information Technology, Vels University, Chennai, 21-Apr-16.
- Certificate Committee Member, International conference on innovative technologies of Computing Sciences, Vels University, Chennai, Apr-2015.

Participation in Faculty Development Programme

- 40 hours FDP on “ **Microsoft Azzure AI Engineer**” organized by ICT Academy in Colloboration with Ministry of Electronics & Information Technology , Government of India,in Dr.N.G.p.Arts and Science College, Coimbatore from 3-Feb-25 to 7-Feb-25.
- Six Days FDP on "A **GAN-based Hybrid Deep Learning Approach for IOT** " oganized by the Department of Computer Science and Engineering, Vinayaka Mission's Kirupananda Variyar Engineering College in association with Pencil Bitz from 16-Dec-24 to 21-Dec-24.
- One day workshop on **Outcome Based Education (OBE)**. DR.N.G.P. Arts and Science College, Coimbatore, 04-Mar-23.
- Six days virtual international faculty development programme (FDP) on “**Prominent challenges in computer vision and data intelligence**”, Navarasam arts and Science College for women, 26-Dec-22 to 31-Dec-22.
- **Research Methodology and Pedagogy for Tertiary Education**, Dr. N.G.P. Arts and Science College, Coimbatore, 15-Jun-21 to 21-Jun-21.
- **Promoting Research and Innovation in HEI- Teacher’s Role**, Sri Kanyaka Parameswari Arts and Science College for Women, Chennai, 27-Apr-21 and 28-Apr-21.
- **Examinations in Wake of Covid-19**, Patrician College of Arts and Science, Chennai, 08-May-20.
- **Data Science Approach for Industry and Research**, Vels Institute of Science, Technology & Advanced Studies (VISTAS), Chennai, 02-May-20.

Editorial/ Review Board Member

- Reviewer at the **IEEE International Conference on Current trends in Advanced Computing 2024** organised by Kristu Jayanti College, Bangalore on 8-May-24 and 9-May-24.
- Editor of the Book Chapter “Title: **INTELLIGENT AUTOMATION CONTROL FOR SCIENTIFIC RESEARCH IN ENGINEERING – VOLUME I**, ISBN NO: 978-939-0-95691-3, VOL 1/ISSUE 2/ MAY- 22.

Membership in Professional Bodies

| Name of the Professional Body | Nature of membership | Duration |
|---|----------------------|----------|
| International Association of Engineers(IAENG) Member ID: 108227 | Life time | - |
| Lifetime Membership in International Institute of Organized Research (I2OR), Membership Number: I2OR/2020/01142. | Life time | - |

Awards / Honors

| Awards / Honors | Agency / Institute | Year of Award |
|-------------------------------|--|---------------|
| Meritorious Achievement Award | Dr.N.G.P. Arts and Science College | 2022 |
| Best Senior Faculty | Sri Karunanandar Charitable Trust | 2021 |
| Best Ph.D Thesis | Dr.N.G.P. Arts and Science College, Coimbatore | 2020 |
| Ph.D Awardee | Dr.N.G.P. Arts and Science College, Coimbatore | 2020 |
| Admission coordinator | Vels University, Chennai | 2016 |