

**Name** : Dr. N. Vanitha  
**Designation** : Associate Professor  
**Department** : Information Technology  
**Qualification** : MCA., M. Phil., Ph. D.  
**Experience** : Teaching: 11.8 Years Industry:3 Years  
**Area of Specialization(s)** : Cyber Security, UAV Networks  
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### Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph. D.	Computer Science	Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore	2022
M. Phil.	Computer Science	Dr. N.G.P. Arts and Science College, Coimbatore	2013
MCA	Computer Applications	Avinashilingam Institute for Home Science and Higher Education For Women, Coimbatore	2008
B. Sc.	Computer Applications	Avinashilingam Institute for Home Science and Higher Education For Women, Coimbatore	2005

### Additional Qualifications

Diploma/ Vocational/ Certification	Area of Specialization	Institution/ University/ Agency Name	Year
Certification	NEP	NPTEL SWAYAM, IGNOU	2022
Certification	BOSS LINUX	Spoken tutorial, IIT Bombay	2020
Certification	JAVA	Spoken tutorial, IIT Bombay	2020
Certification	Developing Soft skills Training	NPTEL	2019
Certification	Data Analysis using SPSS	Dr. N.G.P. Arts and Science College, Coimbatore	2012
Diploma	Hardware and Networking	Sat Infosys, Coimbatore	2006
Certification	Software Testing	Efficsyscomm, Coimbatore.	2005
Certification	Type Writing (Higher and Lower)	Government Aided	2004

### Research Publications (Indexed)

## International

- N. Vanitha and R. Parthasarathy, “**Dynamic Mentor Allocation System**”, 2021, International Journal of Engineering and Management Research, volume 15 issue 4, pp. 1-5 (UGC Indexed)
- N. Vanitha and S.V. Senthuraa,” **Chronic Kidney Disease Detection Using Machine Learning Techniques**”, 2021, “IAR Journal of Medical Sciences”, Volume 2, Issue 2, pp. 127-133.(UGC Indexed)
- N. Vanitha and K. Geetha, “**A study on Deep Learning Techniques for Skin Disease Classification**” , (2021), International Journal of Engineering and Management Research, Volume 11, Issue 2,pp. 48-52. (UGC Indexed)
- N. Vanitha and G. Padmavathi,” **Investigation of Deep Learning Optimizers for False Window Size Injection Attack Detection in Unmanned Aerial Vehicle Network Architecture**” 2021, ICTACT Journal of Communications and Technology (UGC CARE LIST)
- N. Vanitha " **Binary Spray and wait routing Protocol with controlled replication for DTN based Multi-Layer UAV Ad-hoc network Assisting VANET** " 2021 Turkish Journal of Computer and Mathematics Education. ISSN 1309-4653, Volume 12, Number 10 (2021), pp. 2776-2782 (Scopus Indexed)
- Vanitha N (2021). **An Investigation of Weather Forecasting using Machine Learning**, International Journal of Engineering and Management Research, 11(1),e-ISSN: 2250-0758 | p-ISSN: 2394-6962..(UGC Indexed)
- Vanitha N (2021).**Analysis of Machine Learning Techniques for Breast Cancer Prediction**, International Journal of Engineering and Management Research, 11(1),e-ISSN: 2250-0758 | p-ISSN: 2394-6962..(UGC Indexed)
- Vanitha N (2020). **Support of Mobility models for the Decentralised Multilayer UAV Networks Assisting VANET Architecture (DMUAV)**, International Journal of Engineering Research and Technology, 13(12), ISSN: 0974-3154(Scopus Indexed).
- Vanitha N (2020). **Predicting Student Dropouts in Schools Using Machine Learning Techniques**, International Journal of Scientific Research in Engineering and Management (IJSREM),4(6),1-8.ISSN: 2582-3930.(UGC Indexed)
- Vanitha N (2020) **Prediction of Employee Absenteeism Using Machine Learning Techniques**, International Journal of Scientific Research in Engineering and Management (IJSREM),4(6),1-8.ISSN: 2582-3930.(UGC Indexed)

- Vanitha N, & Vinodhini V. (2019). **Malicious-URL Detection using Logistic Regression Technique**, International Journal of Engineering and Management Research, 9(6), 108-113. <https://doi.org/10.31033/ijemr.9.6.18> (UGC Indexed)
- N. Vanitha, G. Padmavathi, **A Study on Various Cyber Attacks and their Classification in UAV assisted Vehicular Ad-Hoc Networks**, CCIS, Volume 844, pp. 124-131, Springer Nature Singapore Pte Ltd, 978-981-13-0716-4\_11, SEP 2018, (Indexed in Scopus).
- N. Vanitha, G. Padmavathi, **A Comparative Study on Communication Architecture of Unmanned Aerial Vehicles and Security Analysis of False Data Dissemination Attacks**, IEEE Xplore Digital Library, Electronic ISBN: 978-1-5386-3702-9, DVD ISBN: 978-1-5386-3700-5, Print on Demand (PoD) ISBN: 978-1-5386-3703-6, NOV-2018, (Indexed in Scopus).
- N. Vanitha, V. Vinodhini, S. Rekha, **A Study on Agriculture UAV for Identifying the Plant Damage after Plantation**, International Journal of Engineering and Management Research, Volume-6, Issue-6, pp. 310-313, Nov-Dec 2016, (H-Indexed).
- S. Rekha, V. Vinodhini, N. Vanitha, **A study on cloud based encrypted data using multi-keyword ranked search scheme**, International Journal of Engineering Sciences, Research Technology, ISSN: 2277-9655, 5(12), pp. 319-322, DEC-2016, (UGC Indexed).
- Vanitha N, Khumaravel K, **Packet Forwarding In Wireless Mesh Network Using IPT Scheme**, International Journal of Engineering and Innovative Technology (IJEIT) Vol 2, Issue 12, pp. 132-136, Jun 2013, Impact Factor: 1.895. ISSN number: 2277-3754, (Indexed in Google Scholar).
- Vanitha N, Khumaravel K, **Scheduling A Packet In Multi-Gate Wireless Mesh Network Using Deficit Round Robin With CBQ Scheme** International Journal of Advanced Research in Computer Science and Software Engineering (IJARCSSE), Volume 3, Issue 11, pp. 1122-1127, Nov 2013. Impact Factor: 2.080. ISSN Number: 2277-128X, (Indexed in Google Scholar).

#### Book Chapter Publications (Indexed)

- Vanitha N, Padmavathi G, **An Investigation of Unmanned Aerial Vehicle Surveillance Data Processing with Big Data Analytics** Title: Big Data Analytics and Computational Intelligence for Cybersecurity, Springer Nature Publications, pp. 219-230, 2022.
- Vanitha N, Padmavathi G, **Investigation on Challenges of Big Data Analytics in UAV Surveillance** Title: Computational Intelligence for Unmanned Aerial Vehicles Communication Networks, Springer Nature publications, pp. 203-210, 2022.

- Vanitha N, **A Study on the Applications of Drones in the Smart Farming**, Title: Implications of IOT in Public Projects, Academic Province Publications, pp.42-50,2021.
- Vanitha N. and Padmavathi Ganapathi ,**Traffic Analysis of UAV Networks Using Enhanced Deep Feed Forward Neural Networks (EDFFNN)**,Source Title: Handbook of Research on Machine and Deep Learning Applications for Cyber Security, **IGI Global** publications, pp.219-244,2020.

#### Research Projects on Going

Project Title	Agency	Amount	Duration
Cyber Security Analytics in Cyber Defense	Dr. N.G.P. ASC	Rs. 5,000	1 Year

#### Consultancy

Nature of Consultancy	Client	Amount	Completion Status
Application Development	1) FLDS 2) Beast Fitness 3) Ranga Hospital 4) Veni Estate	Rs. 4,500	Completed
Broucher Designing	JenifarGarments,Tirupur	Rs.2,000	Completed
Application Development		Rs. 4500	Completed

#### Presentations in Conference

- **An Investigation of Weather Forecasting using Machine Learning**, National Conference on Industry 4.0, PSGRK on 18 & 19-MAR-2021
- **Analysis of Machine Learning Techniques for Breast Cancer Prediction**, National Conference on Industry 4.0, PSGRK on 18 & 19-MAR-2021
- **A study on Deep Learning Techniques for Skin Disease Classification**, National Conference on Industry 4.0, PSGRK on 18 & 19-MAR-2021
- **Machine Learning Techniques for predicting Student Dropouts in Higher Education**, Second International Conference on Research trends in computing technologies (ICRTCT – 2020), Dr.N.G.P. Arts and Science College, Coimbatore, 28-FEB-2020 and 29-FEB-2020.

- **Prediction of Employee Absenteeism using Machine Learning Techniques**, Second International Conference on Research trends in computing technologies(ICRTCT – 2020), Dr.N.G.P. Arts and Science College, Coimbatore, 28-FEB-2020 and 29-FEB-2020.
- **Enhanced Security Mechanisms for the Selected Cyber Attacks in UAV Networks**, Information Institute Conferences, Las Vegas Vanitha N Padmavathi G, and Editors: Gurpreet Dhillon and Spyridon Samonas, 31<sup>st</sup> April, 2 -MAY-19.
- **A Comparative Study on Communication Architecture of Unmanned Aerial Vehicles and Security Analysis of False Data Dissemination Attacks**, IEEE International Conference on Current Trends towards Converging Technologies (ICCTCT 18), SVS College of Engineering and Technology, Coimbatore, 1 to 3-Mar-18.
- **A Study on Cyber Attacks and their Classification in UAV Networks**, International Conference on Computational Intelligence, Cyber Security and Computational Models, PSG College of Technology, Coimbatore,14 to 16-Dec-17.
- **Improving Energy Saving in Wireless Mesh Network using IPT based Packet Forwarding**, National Conference on Wireless Communication, PSGR Krishnammal College for Women, Coimbatore, 29-Jan-15.
- **An Analysis on Medical Dataset using Association and Classification Technique**, National Conference, KGiSL Institute of Information Management, Coimbatore, 15-Feb-13 .

## Participation in Conference

### International

- **SMAC – Reshaping the Future**, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, 9-Feb-18.

### National

- **Emerging Technologies in Computer Science**, Pioneer College of Arts and Science, Coimbatore, 4-Jan-19.

## Participation in Workshop

- Three Days Workshop on **Mathematical Software Workshop**, Universal Engineering College, Thrissur, 02-JUNE-2021 to 06-JUN-21.
- Three Days Workshop On **Machine Learning With Scikit Learn, Keras And Tensor Flow**, Sri Ramakrishna Engineering College, Coimbatore, 17-MAY-2021 TO 19-MAY-21.
- **Blockchain Platforms-Ethereum & Hyperledger Fabric**, Sri Ramakrishna Engineering College, Coimbatore, 22-JUN-20 to 24-JUN-20.
- **Machine Learning Workshop**, Coimbatore Institute of Technology, Coimbatore,03-JAN-2020and 04.-JAN-2020.
- **Machine Learning Methods**, PantechSolutions PVT, Coimbatore, 14-JUL-19.
- **Cloud Based Machine Learning For IOT Device**, PantechSolutions PVT, Coimbatore, 06-JUL-19.
- **Machine Learning using Python**,Pantech Solutions PVT, Coimbatore, 4-Aug-18.
- **Statistical Analysis using R**, Bharathiar University, Coimbatore, 6 & 7-Sep-18.
- **Simulation and Emulation of Self-Organized Networks – NS-3 (Season-2017)**,Kongu Engineering College, Erode, 14 to 16-Sep-17.
- **Effective use of SCI-Finder in Research**, Avinashilingam Institute for Home Science and Higher Education For Women, Coimbatore, 9-Aug-17.
- **Network Simulator (NS2)**, Kongu Engineering College, Erode, 17 to 19-Jul-14.
- **Socket Programming and Network Simulation Using NS2**, R.M.K Engineering College, Kavaraipettai , 14-Dec-12.
- **Science and Academics Workshop**, SVS College of Engineering, Coimbatore. 30&31-Mar-12.
- **LATEX- A Tool For Research Articles**, Sri Ramakrishna Institute of Technology, Coimbatore,12-Aug-11.

#### Participation in Orientation Programme / Short Term Courses

- **Investor Awareness Program**,( Ambition Learning Solutions), Dr. N.G.P Arts and Science College, 11-JUN-21.

- **Problem Solving and Python Programming**, (Computer Society of India (CSI), Dr. N.G.P. Institute of Technology, Coimbatore, 9-SEP-17.

### Participation in Faculty Development Programme

- FDP on **Data Science and Machine Learning**, Bannari Amman Institute of Technology, Sathya Mangalam, from 13th to 17- Jul-21
- Online FDP on **Research Methodology and Pedagogy for Tertiary Education**, Dr. N. G. P. Arts and Science college, from 15<sup>th</sup> to 21-Jun-21
- FDP on **PHP and MYSQL**, Dr. N. G. P. Arts and Science college and Spoken tutorial, IIT Bombay, from 02-JAN-2020 to 30-JUN-20.
- Online FDP on **Cyber Security**, Sri Ramakrishna Institute of Technology, from 13-JUL-2020 to 17-JUL-2020.
- Online FDP on **Machine Learning Model Based Solution for COVID 19**, Nirmala College for Women on 18-MAY-20.
- Online FDP - **Improving Your Research Visibility – Research Impact and Metrics**, VELALAR COLLEGE OF ENGINEERING AND TECHNOLOGY, Chennai, from 11-MAY-2020 to 13-MAY-2020.
- **BOSS Linux**, Spoken Tutorial IIT Bombay, organized at Karmaveer Bhaurao Patil College of Engineering from 15-APRIL-2020 to 22-APRIL-2020.
- **Java Programming**, Spoken Tutorial IIT Bombay, organized at Zeal College of Engineering and Research, Pune, from 05-APRIL-2020 to 13-APRIL-.2020
- **Fundamentals of Artificial Intelligence, ICT ACADEMY**, Dr. N.G.P. Institute of Technology, Coimbatore, 12 MAR- 2020 to 14-MAR-2020.
- **Quality Measures in Higher Education**, Dr. N.G.P. Arts and Science College, Coimbatore, 3 to 9-Dec-18.
- **Introduction to R Programming**, CT ACADEMY, Dr. N.G.P. Arts and Science College, Coimbatore, 30 and 31-Aug-18.

### Conference / Seminar / Workshop Organized

- Coordinator, Webinar series May-June 2021, Rotaract club of Dr.N.G.P. Arts and Science College, Coimbatore, May-June 2021.

- Organizing Secretary, Cyber Security Hackathon 2020 in association with Institutions Innovation Council, Dr. N.G. P. Arts and Science College, Coimbatore, 29-Dec-2020.
- Organizing Committee member, Second International Conference on Research Trends in Computing Technologies (ICRTCT -20), Dr. N.G.P. Arts and Science College, Coimbatore, 27<sup>th</sup>&28<sup>th</sup> Feb-2020.
- Organizing Committee member, DST-SERB Sponsored National Seminar on Computing Platforms for Biological Big DataAnalytics (NSCB-2020), Dr. N.G.P. Arts and Science College, Coimbatore, on 05 and 06-FEB- 2020.
- Organizing member, National Level Technical Symposium- TechTrix 2020, Dr. N.G.P. Arts and Science College, Coimbatore, on 03-FEB-2020.
- Organizing member, National Seminar on Applications of Deep Learning in Artificial Intelligence (NSDA-2019), N.G.P. Arts and Science College, Coimbatore, on 25-Sep- 2019.
- Committee member, International Conference on Research Trends in Computing Technologies(ICRTCT -18), Dr. N.G.P. Arts and Science College, Coimbatore, 9 &10-Aug-18.
- Committee member, National Conference on Advanced Trends in Information Technologies(NCATIT - 16), Dr. N.G.P. Arts and Science College, Coimbatore, 24-Feb-16.

#### **Editorial / Review Board Member**

- Reviewer in Advances in Science, Technology and Engineering Systems Journal (ASTESJ),udson Valley, New York,2020 onwards.
- Reviewer in International Virtual Conference on Multidisciplinary Research 2020 (IVCMR 2020), Walnut, California, USA, 2020 onwards.
- Review Board Member, IGI Global Publications, 2019-2020.
- Member of Question Paper Scrutiny Board Information technology, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore. Since 2018.

#### **Invited Speaker**

- Invited Speaker, KPR college of Arts and Science, Coimbatore, **ICT Tools for Effective Communication**, on 24th -Mar-2022.



- Invited Speaker, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, **Fund Raising ideas for Community Social Service**, on 20th -Mar-2022
- Invited Speaker, Angappa college of Arts and Science, Coimbatore, **Applications of Drones**, on 7th -Jun -2021

### Club Co-Ordinator

- Rotaract Club Co-ordinator of Rotaract Club of Dr. N. G. P. Arts and Science College, Coimbatore, Sponsored by Rotary Club of Coimbatore Meridian.

### Membership in Professional Bodies

Name of the Professional Body	Nature of membership	Duration
IAENG (International Association for the Engineers)	Life-time	-
(ICSES)International Computer Science and Engineering Society	Member	From 19-MAR-2020
(TERA)Teaching and Education Research Association	Life-time	-
IFERP	Life-time	17-MAY-2020 to 31-DEC-2020

### Awards / Honors

Awards / Honors	Agency / Institute	Year of Award
Thangappene, Academic Performance	DAR PVT and Dr. NGP Institute of Technology, Coimbatore	2022
Best Organizer	Indian Medical Association	2022
Rotaract Club Coordinator	Indian Medical Association	2021
Top Performing Mentor	NPTEL	2020
Best Faculty Award	Dr. N.G.P. Arts and Science College, Coimbatore.	2020, 2021

Best NPTEL Performer Award	Dr. N.G.P. Arts and Science College, Coimbatore.	2020,2021
Proficiency Holder - MCA	Avinashilingam Institute for Home Science and Higher Education For Women, Coimbatore.	2008