

FACULTY PROFILE TEMPLATE FOR WEBSITE

Basic Details:

- **Name:** Dr.N.Vijayalakshmi
- **Designation:** Assistant Professor(Sr.G)
- **PhoneNumber:-** 9941202829
- **Email Id:** vijayaln@srmist.edu.in
- **Area of Specialization:** Network Security, WSN, IOT, Image Processing
- **Affiliation:** SRMIST, Ramapuram Campus

Educational Details:

- **Degree -** P.hD
- **Area or Subject -** Network Security
- **University -** Anna University
- **Awarded Year -** 2018
- **Degree -** MCA
- **Area or Subject -** Computer Applications
- **University -** Anna University
- **Awarded Year -** 2011
- **Degree -** B.Sc
- **Area or Subject -** Computer Science
- **University -** University of Madras
- **Awarded Year -** 2007

Other Details:

Courses:

1. NPTEL CERTIFICATION on COMPUTER NETWORK AND PROTOCOL – DEC 2022
2. NPTEL CERTIFICATION on BIG DATA COMPUTING – OCT 2021
3. NPTEL CERTIFICATION on IOT – JULY 2019
4. NPTEL CERTIFICATION on Data Mining – APRIL 2019
5. NIIT CERTIFICATION on J2EE – 2008

Research Interests: IOT, Image Processing, Machine Learning

Selected Publications:

1. **Vijayalakshmi, N**, Vivekanandan, P & Sivajothi, E 2012, 'Efficiency and Limitations of Secure Protocol in E-mail Services', International Journal of Engineering Sciences & Research Technology, pp. 539-544.
2. **Vijayalakshmi, N**, Vivekanandan, P & Sivajothi, E 2014, 'Correlative Analysis on E-Mail Protocol Using Session Management', International Journal of Applied Research in Engineering and Science, pp. 1373-1382.
3. **Vijayalakshmi, N**, Vivekanandan, P, Sivajothi, E & Swaminathan, A 2014, 'An Overview of Secure Hash Functions', Asian Journal of Information Technology. - Scopus
4. **Vijayalakshmi, N** & Vivekanandan, P 2016, 'A Spam Classification Framework Using Orthogonal Local Preserving Projection and Multi – Objective Deep Neural Network Classifier', Journal of Computational and Theoretical Nanoscience, vol. 13, no. 8, pp. 1-12.
5. Sivajothi, E, Vivekanandan, P & **Vijayalakshmi, N** 2012, 'Survey of Routing Algorithms For MANETs', International Journal of Engineering Sciences & Research Technology, pp. 530-535.
6. Sivajothi, E, Vivekanandan, P, **Vijayalakshmi, N** & Swaminathan, A 2013, 'An Overview of Route Discovery Mechanism of Multicast Routing Protocols for MANETs', International Journal of Engineering and Technology, pp. 3958-3966.
7. Malathi, P, Vivekanandan, P, **Vijayalakshmi, N** & Swaminathan, A 2014, 'Extended Internet Security with Restricted Client Side Scripts (Rcss) From Phishing Attacks For Qos Improvement', International Journal of Applied Engineering Research, pp. 22181-22189.
8. Sivajothi, E, Vivekanandan, P, **Vijayalakshmi, N** & Swaminathan, A 2014, 'Low Energy Adaptive Clustering Hierarichy – Redundancy Aware Protocol (LEACH-RA)', Advances in Natural and Applied Sciences, pp. 1-6.
9. Dhillipan, J, **Vijayalakshmi, N**, Suriya, S 2019, 'Network Monitoring System using Ping Methodology and GUI', Springer (Recent Trends and Advances in Artificial Intelligence and Internet of Things), Vol.172, pp. 13-22. - **Scopus**
10. Dhillipan, J, **Vijayalakshmi, N**, Suriya, S, 2020, 'A Secure wild animals alert system for preventing the farming land using IoT', International Journal of Recent Technology and Engineering, Vol.8, No.5, pp.5585-5587. - **Scopus**
11. **Vijayalakshmi, N**, Sindhu, S, Dhillipan, J, 2020, 'IOT based Human Temperature Monitoring System for Intellectual Virus Spreading Like Covid-19', High Technology Letter, Vol.26, No.11, pp.1-10. - **Scopus**
12. Dhillipan, J, **Vijayalakshmi, N**, Suriya, S, 2021, 'Prediction of Students Performance Using Machine Learning', IOP Conference Series: Materials Science and Engineering, Vol.1055, pp1-8. - **WOS**
13. Agusthiyar, R, Suriya, S, **Vijayalakshmi, N**, 2021, 'A Novel IOT Based Power Monitoring System', IOP Conference Series: Materials Science and Engineering, Vol.1055, pp1-7. - **WOS**
14. Dhillipan, J, **Vijayalakshmi, N**, Shanmugam, D, B, 2022, 'Performance and efficiency of different types of solar cell material – A review', Elsevier: Materials Today: Proceedings - **Scopus**

15. Shanmugam , D, B, **Vijayalakshmi, N, 2022**, ‘SECURITY IMPROVEMENT OF CLOUD DATA USING HYBRID CRYPTOGRAPHY AND STEGANOGRAPHY’, Mukta Shabd Journal -**UGC**
16. Sindhu, S, **Vijayalakshmi, N, 2022**, ‘ A Role of Machine Learning Algorithm for business analytics in industry 4.0 prediction made for digital transformation based on IOT’, International Journal of Scientific Research in Science, Engineering and Technology – **UGC**.
17. Vignesh, A, **Vijayalakshmi, N, 2022**, ‘ An Application of Nanobots for Improving the quality of Medical Treatments’, Indian Journal of Natural science - **WOS**
18. Sindhu, S, **Vijayalakshmi, N, S.Suriya, 2020** , ‘Feasibility Analysis for Targeted Nodes Using Signal Strength’ , Bioscience Biotechnology Research Communications- **WOS**
19. Sindhu, S, **Vijayalakshmi, N, S.Suriya, 2021** , ‘Automatic Vehicle Number Recognition System using Character Segmentation and Morphological algorithm’, IEEE Explore – **Scopus**
20. Sindhu, S, **Vijayalakshmi, N, 2022**,“Internet of Things- Based Monitoring System and Their Applications” Book : Smart Computing and Self-Adaptive Systems”, CRC Press publication, First edition published 2022. ISBN: 978-0-367-74110-5 (hbk) DOI: 10.1201/9781003156123- Book Chapter(**Scopus**)
21. Dhillipan, J, **Vijayalakshmi, N, Shanmugam , D, B, 2023**, ‘Accident Prevention and Driver Safety Using IOT and Machine Learning’, Journal of the Balkan Tribiological Association, Vol.29 No.1 pp:44-54. (**Scopus**)
22. Sabapathi, S, **Vijayalakshmi, N, 2023**, ‘Detection and Classification of Pest in Crops Using Single Shot Multi-Box Detector’, Journal of the Balkan Tribiological Association, Vol.29 No.2 pp:168-176. (**Scopus**)
23. Shanmugam , D, B, **Vijayalakshmi, N, 2023**, ‘Application of Collatz Conjecture in Watermarking’, International Journal of Research and Analytical Reviews, Vol.10, No.1, pp:297-302.(**UGC Care**)
24. Sindhu, S, Vignesh, A, **Vijayalakshmi, N, 2023**, ‘The Analysis of a Deep Learning Algorithm to Improve the Medical Image Segmentation and Image classification with higher accuracy F-Score’, Dogo Rangsang Research Journal, Vol. 13(4), No.3, pp:219-224. (**UGC Care**)

Papers Presented:

1. **Vijayalakshmi, N, Vivekanandan, P, Malathy, P & Sivajothi, E 2015**, ‘ Spam Filtering in Machine Learning – A Survey’, International Conference on Emerging Trends in Technology Science and Upcoming Research in Computer Science, pp. 507-513.
2. **Vijayalakshmi, N Vivekanandan, P, Swaminathan, A & Sivajothi, E 2016**, ‘An Intelligent Based Multi Feature Approximation Based Tree Structure Classifier For E-Mail Spam Filtering Using Wordnet Taxonomy’, National Conference on Intelligent Computing and Data Analytics, pp. 57-69 .
3. Vivekanandan, P, **Vijayalakshmi, N, Swaminathan, A & Sivajothi, E 2016**, ‘A Secure Framework For Email Classification Using Decision Tree Classifier’, Global Symposium on Information and Network Security, University of Riverside, Los Angeles, California, USA.
4. **Vijayalakshmi, N, Vivekanandan, P, Swaminathan, A & Sivajothi, E 2016**, ‘Multi level spam Filtering on E-Mail Based on Multi Objective Classification For Dimensionality Reduction Using Domain Ontology’, Proceedings of Dynamic systems and Applications, USA, no. 7, pp. 332-338.
5. Sivajothi, E, Vivekanandan, P, **Vijayalakshmi, N & Swaminathan, A 2016**, ‘An Efficient Approach for the placement of nodes in wireless sensor networks’, Proceedings of Dynamic systems and Applications, USA , no. 7, pp. 321-327.

6. Nisha Raveendran, **Vijayalakshmi, N** 2023, ‘ Comparative Analysis of Various Machine Learning Models to predict student Performance’, ICHMIDE

Patents:

1. Design and implementation of a disaster management system using IOT and cloud computing techniques for connected buildings to save lives with early warning – 18-08-2020 – Granted.
2. Protecting Fishermen on Indian Marine Boundaries Using GPS Enabled Device through IOT – 30-10-2021 – Published.
3. ACCIDENT PREVENTION AND DRIVER SAFETY USING IOT AND MACHINE LEARNING – 20-05-2022 – Published.

Academic Experience: 7.3 Years

Other Professional Experience:5 Years (in Research)

Academic / Professional Membership: IAENG, CSI

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