Dr. Kamini Ashutosh Shirsath (Nalavade)
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EDUCATIONAL QUALIFICATION

- ✓ **Ph.D**. **in** Computer Engineering from **V.J.T.I Mumbai** in 2017.

- ✓ **M. Tech.** in Computer Engineering from **V.J.T.I.**, MUMBAI with an aggregate **CGPA 8.6 in 2007. Second Topper during M.Tech. Course.**

- ✓ **B.E** in **Computer Science and Engineering** from **S.G.G.S College of Engineering & Technology**, **Nanded**, affiliated to **SRTMU**, Nanded in **2001** with **Distinction** of **73%**.

- ✓ **H.S.C.** Passed in **Distinction78%** from R.Y.K College, Nasik in **March1997**.

- ✓ **S.S.C.** Passed in **Distinction 88%** from M.R. SardaKanyaVidyalaya, Nasik **in March 1995.**

EXPERIENCE: 21 Years

- ✓ Working as Head and Professor in Computer Engineering Dept. Sandip Foundation's Sandip Institute of Engineering & Management, Nasik (**11 Years**) (**Approved Professor by (SPPU) Pune University since Dec 2017**).

- ✓ Recognized as Ph.D supervisor for Savitribai Phule Pune University.

- ✓ Worked as professor and deputy Head **in Information Technology Department** of Thakur College of Engineering & Technology, Kandivali (E), Mumbai for **02 years**

- ✓ Worked as Lecturer in Department Of Computer Engineering of Vidyavardhini's College of Engineering & Technology, Vasai Road (W), from July 2002 to July 2008. (**06 Years**)(**Approved by Mumbai University**)

- ✓ Worked as visiting lecturer for S.F.I.T, Borivali.

- ✓ Worked as visiting lecturer for MCA course at Vidyavardhni's COE & Tech (distance education programme) Vasai and Hirey institute of Computer Applications Bandra.

PROFESSIONAL MEMBERSHIP

- ✓ **Life Member of CSI, ISTE,MIIE-IEI**
- ✓ **Membership of IAENG (International Association of Engineers)**

BOOK Publications : 04 Books

1. "Practical Approach to Learn Static Website Designing", by Insta Publishing House, In Process.

2. "Data Structures and Algorithms", book published by Gigatech Publishing House, Pune, June 2018, ISBN 978-81-936504-9-3.

3. "Network Security", book on experimentation, published by Shroff publications, February 2017, ISBN978-93-5213-355-0

4. "Network Attacks & Defense Mechanisms", book on literature survey published, Research India Publications, Delhi, May 2013, ISBN978-93-84144-31-9.

PATENT

1. Kamini Nalavade, B.B.Meshram, "Integrated Architecture of Intrusion Protection Systems", patent submitted and published in Official Journal of Indian Patents, Nov. 2013.

Copyright

1. Copyright registered for Marathi Poems in 2022

Research Paper Publication

Till now more than **50** papers published in International Journals and Conferences

RESEARCH PROPOSALS SUBMITTED

- ✓ Proposal submitted to DST "IOT Based Petrol Consumption Notification in Vehicles with display board" in April 2020

- ✓ Proposal submitted to DST "Agricultural Pesticide Spraying Robotic System Controlled Using Android Application" in April 2020

- ✓ Proposal submitted to DST "Flood monitoring and prediction by using Wireless Sensor Network" in April 2020

- ✓ Proposal submitted to DST under SEED "Automated Farm Pond Monitoring and Control System" in Feb 2019

CONFERENCES ORGANIZED

- ✓ National Conference on "Recent Innovations in Engineering, Science & Technology" held on 15th and 16th April 2019.

- ✓ National Conference on "Recent Trends in Cyber Frauds Investigations and Forensics" on 27th and 28th April2018.

- ✓ International Conference and Workshop on Problem based Learning in 2013 at Sandip Foundation,Nasik

- ✓ International Conference and Workshop on Emerging Trends in Technology in 2009 at Thakur College of Engineering,Mumbai.

Responsibilities Handled

- ✓ Working as Head of Department of Computer Engineering in Sandip Foundation from last 8 years.

- ✓ Worked as active member of Women's Grievance committee and ICC Cell. Organized various programmes for the ladies staff members and students of SIEM Health awareness, Legal rights of women and fitness Sessions.

- ✓ Worked as Paper reviewer, Session chair for National and International conferences.

GUEST SPEAKER

- ✓ Seminar on "**Career Guidance**" for H.S.C. students on 7th Aug 2021 and 21st Aug 2021
- ✓ Seminar on "**Intellectual Property Rights"** for students.
- ✓ Seminar on "**Cyber Crime Awareness amid lockdown"** 18th May 2020
- ✓ One Week Workshop on **Web Technologies** from 1st March to 9th March 2020
- ✓ Workshop on "Basic and Advanced Java" from 17th Sep to 21st Sep 2019.
- ✓ Three Days BCUD Sponsored National Level Workshop on "Object Oriented Software modeling and Architecture" on 25th, 26th and 27th July 2013 at Sandip Institute of Engineering & Management,Nasik.

- ✓ Guest Speaker at Faculty Development Programme on Data Structures and Algorithms on 18th January 2021 arranged by MES CoE, Pune.

- ✓ Guest Speaker for Workshop on Cyber Security on 20th Feb 2019 arranged by B.Y.K College, Nasik.

- ✓ Guest Speaker at Gokhale Education Societies B.Y.K. College of Commerce on "Cloud computing and security" in June 2018

- ✓ Guest Speaker at Bytco College of Arts, Commerce and Science on "Cloud computing ands ecurity" in June 2018.
- ✓ Guest Speaker and Judge at K.K.Wagh Arts, Commerce and Science College, Nasik during e-Merge 2016.
- ✓ Guest Speaker for one week Faculty Development Programme (FDP) on Information Security and Forensics conducted on 24th -28th June 2013 at Veermata Jijabai Technological Institute, Mumbai.
    ✓ Guest Speaker for TEQIP-II sponsored one week workshop on Information Security and Forensics Analysis conducted on 21st-25th October 2013 at Veermata Jijabai Technological Institute, Mumbai.

Paper Publication

1. Kamini Nalavade, B.B.Meshram, "Identifying source of Attack by IP Trace back", In proceedings of Advances in Information and Communication Technologies, **Springer LNCS- CCIS**, Volume 101, Part 2, 292-296, September 2010

2. Kamini Nalavade, B.B.Meshram, "Intrusion Prevention System: Data Mining Approach", In proceedings of International Conference and Workshop on Emerging Trends in Communication and Technology, ICWET'10, Mumbai, Maharashtra, India. **ACM 978-1- 60558-812**, February 2010

3. Kamini Nalavade, B.B.Meshram, "Layered Security Framework for Intrusion Prevention", International Journal of Computer Science and Network Security (**IJCSNS**) Vol.11, No.6, PP 253-259, Journal ISSN:1738-7906, June 2011

4. Kamini Nalavade, B.B.Meshram, "Data Classification using Support Vector Machines", International Journal of Engineering Research and Applications (**IJERA**), ISSN:2248-9622, March2012.

5. Kamini Nalavade, B.B.Meshram, "Methodologies for Intrusion Detection and Prevention", Journal of Engineering Research and Studies, ISSN 0976-7916, **JERS**/Vol III/I/March 2012.

6. Kamini Nalavade, B.B.Meshram, "Denial of Service on TCP/IP Security Protocols: Vulnerability, Tools and Countermeasures", in proceedings of International Conference on Technology, Telecommunication and Problem based learning (**TTPBL**)**,** Nasik, March 2013.

7. Kamini Nalavade, B.B.Meshram, "Adaptive Anomaly Detection for Network Security", International Journal of Computer and Internet Security (**IJCIT**). ISSN 0974-2247 Volume 5, No.1, 2013.

8. Kamini Nalavade, B.B.Meshram, "Generic Network Intrusion Prevention System", International Journal of Computer Applications(**IJCA**) , ICCIA, Number 2, IJCAOnline,2013

9. Kamini Nalavade, B.B.Meshram, "E-Mail Protocols: Vulnerability, Attacks and Defense Mechanisms" , International Journal of Pure and Applied Research in Engineering and Technology (**IJPAERT**), Vol 1(8),ISSN:2319- 507X.,April 2013

10. Kamini Nalavade, B.B.Meshram, "Denial of Service on TCP/IP Security Protocols: Vulnerabilities, Tools and Countermeasures", International Journal of Data and Network Security(**IJDNS**), Vol 4, No.1, ISSN 2319 1236, January 2014

11. Kamini Nalavade, B.B.Meshram, "Mining Association Rules to Evade Intrusions in Network Audit Data", International Journal of Advanced Computer Research (**IJACR**), ISSN: 2249:7277, April 2014.

12. Kamini Nalavade, B.B.Meshram, "Comprehensive Study of KDDcup99 dataset and Data Mining tools for Intrusion Detection and Prevention Systems", i-manager's Journal on Information Technology (**IJIT**), Volume 3, Issue no 2, ISSN 2277-5110, May 2014.

13. Kamini Nalavade, B. B. Meshram, "Evaluation of k-means clustering for effective intrusion detection and prevention in massive network data" International Journal of Computing Application (**IJCA**) ISSN 0975-8887 June edition, 2014.

14. Kamini Nalavade, B.B.Meshram," Layered Approach for preprocessing of data in Intrusion Prevention Systems", International Journal of Computer Applications Technology and Research (**IJCATR**), Vol 3 issue 6, ISSN: 2319:8656, June2014

15. Kamini Nalavade, B.B.Meshram, "Finding Frequent itemsets using Apriori Algorithm to detect intrusions in Large datasets", International Journal of Computer Applications and Information Technology (**IJCAIT**), ISSN: 2278:7720, July 2014

16. Kamini Nalavade, B.B.Meshram, "Intrusion Detection and Prevention System for Routing Protocol Attacks", International Journal of Science, Engineering and Technology Research (**IJSETR**), ISSN: 2278-7798, Volume 3, Issue 9, February 2014.

17. Kamini Nalavade, B.B.Meshram, "Vulnerability and Attack Analysis of TCP/IP Routing Protocols", in Proceedings of 3rd International Conference on Recent Trends in Engineering & Technology (ICRTET'2014), March2014.

18. Kamini Nalavade, B.B.Meshram, "Comprehensive Study of KDDcup99 dataset and Data Mining tools for Intrusion Detection and Prevention Systems", In proceedings of National Conference on Recent Trends in Network Security, Chennai, Tamilnadu, May2014.

19. Kamini Nalavade, B.B.Meshram, "Transaction Management in Multidatabase System", In proceedings of National Conference on computing, communication, Electronic and management, Pune 2009.

20. Kamini Nalavade, B.B.Meshram, "Comparative Study of IDS & IPS", In proceedings of IEEE sponsored National conference on Pervasive Computing, Pune, March2010.

21. Kamini Nalavade, Umangi Lengre, Poonam Pardeshi, "Controller Interfacing for Securing Communication between Two Army Stations", International Journal of Engineering Research Online, ISSN: 2321-7758 , Volume 3, Issue 5, October 2015.

22. K.C. Nalavade, Karishma Yande, Shital Sarode, Rushikech Bhusare, "E-Water Toxicity", International Journal for Research in Engineering & Management, ISSN: 2494-9150, Volume 1, Issue 12, March 2016.

23. K.C. Nalavade, Pooja Gavali, Snehal Aher, "Android Mobile Application for Video Streaming Using Cloud Computing", International Journal of Modern Trends in Engineering and Research, ISSN: 2393-8161, Volume 3, Issue 9, September 2016,

24. K.C. Nalavade, Rituraj Chouhan, Shrivyanktesh Jagtap, Shubham Ahire, "E-Trading of Agricultural Products from Farm to Customer Application", International Journal of Modern Trends in Engineering and Research, ISSN: 2393-8161, Volume 3, Issue 10, October 2016.

25. K.C. Nalavade, Pooja Gavali, Snehal Aher, "Android Mobile Application for Video Streaming Using Load Balancing", International Research Journal of Engineering and Technology, ISSN: 2395-0072, Volume 4, Issue 3, March 2017.

26. K.C. Nalavade, Rituraj Chouhan, Shrivyanktesh Jagtap, Shubham Ahire, "E-Trading of Agricultural Products from Farm to Customer Application", International Research Journal of Engineering and Technology, ISSN: 2395-0072, Volume 4, Issue 3, March 2017.

27. K.A. Shirsath, Aarti Jaiswal, Swati Nair, Gayatri Sonawane, "IOT Based smart shopping kart with automated billing and customer relationship management", International Journal of Research in Applied Science and Engineering Technology (IJRASET), Volume 5, Issue X, ISSN: 2321:9653, October 2017.

28. K.C. Nalavade, Sharad Deshmukh, Shubham Memane, Mayuri Sahane, "Review on Automated Placement Process using Graph Database", Volume 5, Issue X, October 2017.

29. K.C. Nalavade, D.S. Shingate, P.C. Patil, "Real Time Rainfall Monitoring and Flood Control System Using Wireless Sensor Networks", International Conference on Communication, Information Processing, Elsevier-SSRN, ICCIP May 2019.

30. K.C. Nalavade, Omkar Muley, Manas Bhalerao, Sayali Bhamare, "IOT Based Food Inventory Tracking System for Domestic and Commercial Kitchens", International Journal of Scientific Development and Research (IJSDR), Volume 4, Issue 10, ISSN 2455:2631, October 2019.

31. K.C. Nalavade, Simran Chaus, Lalit Wagh, Prathamesh Dubey, "A review on flood monitoring and prediction using WSN", International Journal of Scientific Development and Research (IJSDR), Volume 4, Issue 12, ISSN 2455:2631, December 2019.

32. K.C. Nalavade, Simran Chaus, Lalit Wagh, Prathamesh Dubey, "A review on flood monitoring and prediction using WSN", International Journal of Innovations in Engineering Research and Technology, ISSN: 2394-3696, Volume 7 Issue 4, April 2020.

33. K.C. Nalavade, Omkar Muley, Manas Bhalerao, Sayali Bhamare, "IOT Based Food Inventory Tracking System for Domestic and Commercial Kitchens", International Journal of Innovations in

Engineering Research and Technology, ISSN: 2394-3696, Volume 7 Issue 4, April 2020.

34. K.C. Nalavade, "Integrated Data Mining Approach for Intrusion Protection Systems", International Journal of Multidisciplinary Educational Research, ISSN: 2277-7881, Volume 9, Issue 9, September 2020.

35. K.C. Nalavade, "Using Machine Learning and Staistical Models for Intrusion Detection", International Journal of Computer Applications, ISSN: 0975-8887, Volume 175 No31, Nov 2020.

36. Mrunal Gandhi, Tushar Nikam, Akshay Shahane, Mayur Shete, Dr. Kamini C. Nalavade, " Product Recommendation System Using Machine Learning Based Collaborative Filtering Technique", International Journal of Science and Research (IJSR), ISSN: 2319-7064, Volume 9, Issue 12, December 2020.

37. Rushi Panchariya, Shubham Khatal, Prasad Londhe, Roshan Balayar, Dr. Kamini Nalavade, "Pothole Detector using IOT", International Journal of Engineering Research and Applications, Volume 10, Issue 12, December 2020.

38. Rushi Panchariya, Shubham Khatal, Prasad Londhe, Roshan Balayar, Dr. Kamini Nalavade, "Pothole Detector using IOT", GIS Science Journal, ISSN: 1869-9391,Volume 8, Issue 6, March 2021.

39. Aman Ashok Singh, Ajay Kumar Mahendra Kumar Vishwakarma, Mayur Gajanan Kawle, Janhavi Satish Badgujar, Dr. K.C. Nalavade, "Reducing empty truck problem and route optimization for enhanced and sustainable logistic transportation", International Journal of Creative Research Thoughts (IJCRT), ISSN: Volume 9, Issue 6, June 2021.

40. Mrunal Gandhi, Tushar Nikam, Akshay Shahane, Mayur Shete, Dr. Kamini C. Nalavade, "Product Recommendation System Using Machine Learning Based Collaborative Filtering Technique", International Conference on Emerging Trends in Engineering and Technology (ICETET-2021), July 2021

Projects Undertaken

1. Research :- Modeling and development of Intrusion Protection System using supervised and unsupervised learning techniques

This work aims at understanding various TCP/IP suite vulnerabilities, attacks caused by them and countermeasures for defending against these attacks. We identified the vulnerabilities and attacks on TCP/IP protocols, routing protocols and security protocols and proposed the solution against the attacks. Dynamic signature generation and unknown intrusion detection are the significant features of proposed IPS. Unsupervised learning algorithms are applied to efficiently detect various types of unknown and new network intrusions dynamically. To test the system, generation of comprehensive unlabeled training set with all different attack types is one of the major system requirements. Intrusion signatures are updated dynamically by mining the anomalous cluster by use of frequent itemset

mining algorithm. Efficient and effective fusion of signature based detection and anomaly based detection with dynamic signature generation is achieved by building proposed operational intrusion protection system. The proposed IPS supports the security offered by other defense mechanisms and help to enhance network security by defending against vulnerabilities and attacks of TCP/IP protocol suite. Our decision model results in early attack detection and can effectively detect and prevent attacks even when they are concealed within normal trafficflow.

2. Other Projects

Project 1: Personalization and Adaptation of Web Development Environment
The project aims to personalize the web site for a superstore which was developed using Java servlets. The personalization was achieved using three modules: first is based on the registration data. The second finds the association rule form the previous transactions by using Data mining algorithm like Apriori, Decision tree algorithms. Third performs the personalization task by inserting the links on user's home page from the result of data miningalgorithm.

Project 2:- Web Content Mining Development Environment
This project does the task of parsing the web pages using a Parser. The web pages will be stored in the database based on their contents like no. of links, Images or paragraphs on the web page. Then the mining will help you to decide the browsing pattern for the web.

Project 3:- Implementation of Trivial File Transfer Protocol Development Environment
The project implements the TFTP protocol of Computer networks in core Java. The project transfers the file from one host to another. The project implementation includes handling the packets and data and transfer in a network environment.

Project 4:- Implementation of Web Search Engine Development
By using search engine the user can search for the desired job by giving his requirements. He can register with the site and can apply for the job. In the same way if job provider wants to upload the jobs, he should register with the site and posts the job by using a mail. Then the administrator of the site uploads the requirements of the job provider into the site in the form of an advertisement .This advertisement is seen by the jobseeker and if satisfies his requirements he can apply for the job.

Project5:- Quality Data Management System
This project completed during training period in **SIEMENS LTD. Nasik.** The project is a database project completed in dosbased foxpro. The project deals with the data collection from the various departments of the company and generating the report like fault report.

PERSONAL PROFILE

Dateof Birth	**:**	**15th May1980**
Permanent Address	**:**	**Bungalow No.2, Deolali Hsg. Soc. LAM road, Behind Octroi Naka No.6, Deolali Camp Nasik**

DECLARATION

I consider myself familiar with Computer Science and Information Technology Engineering aspects.

I am also confident of my ability to work in a team.

I hereby declare that the information furnished above is true to the best of my knowledge.

Place:

Date: **Dr. K.A.Shirsath-Nalavade**