#### **Curriculum Vitae**

Name: Dr. Vinod Keshaorao Pachghare

**Designation:** Associate Professor

Department of Computer Engineering & IT

College of Engineering Pune (COEP)

**Date of Birth:** 07<sup>th</sup> April 1967

**Highest Qualifications :** Ph.D. [Computer Engineering]

Academic Performance : (High School to Highest

Qual.)

Qualification	Board/ University	Class	Year of passing
B.E. Computer Engg.	Amravati	First	1990
M.E. Computer	Pune	First	2007
Engineering			
PhD. Computer	Pune	NA	2013
Engineering			

**Experience:** 28 years teaching

**Award:** Best Faculty Award 2018 by CSI, Mumbai Chapter

## **Membership of Associations/Societies:**

IEEE, CSI, ISTE, IAENG, IACSIT, Computer Science Teachers Association (CSTA), Science and Engineering Institute (SCIEI)

**PhD Supervisor:** Pursuing 5 students for PhD work under SPPU Pune

- 1. Rupali M Chopade, PhD scholar, working on, "Performance evaluation technique for establishment of deleted data in the database forensic applications".
- 2. Shyamal Satish Virnodkar, PhD scholar working on, "Machine Learning based Crop Water Stress Identification Model for Sugarcane".
- 3. Pooja Pol, PhD scholar working on, "Trust Computing Framework based on Big Data Analysis in Distributed Data Sharing".
- 4. Rahul Baliram Adhao, PhD scholar working on, "Network Traffic Classification for Intrusion Detection System using Flow Based Approach".



5. Avinash Rajendra Kshirsagar, PhD scholar working on, "Efficient use of Blockchain Technology for Decentralised Applications".

# M. Tech project guided: 22

Editor: White Knight Annual Technical Magazine, COEP Pune

## **Research Projects:**

- 1. Chief Investigator for the Information Security Education and Awareness [ISEA] Project Phase-II, Department of Information Technology, Gov. of India Rs. 148 Lakh. 2014-20
- 2. Principal Investigator for RPS "Wireless Intrusion Detection System", AICTE Rs. 10 Lakh. 2013-16
- 3. Co-Investigator for the Information Security Education and Awareness [ISEA] Project Phase-I, Department of Information Technology, Gov. of India. 2005-2013
- 4. Investigator for the R and D project "Intrusion Detection System", The Institution of Engineers (India) 2009-10

# Consultancy

Title of Consultancy work	Client	Amount	Period	Main or Consultant	
		Earned			
One day symposium on	CrowdStrike	1.25 Lakh	2018	Sponsorship for the	
Information & Cyber Security	India Pvt			event	
Research, 6 <sup>th</sup> October 2018	Ltd			Worked as event	
				Coordinator	
One Day Symposium on Cyber	FinIQ, Pune	1.50 Lakh	2018	Sponsorship for the	
Security				event	
				Worked as event	
				Coordinator	
One day symposium on	FinIQ, Pune	1.00 Lakh	2017	Sponsorship for the	
Information & Cyber Security				event	
Research, 16 <sup>th</sup> September 2017				Worked as event	
				Coordinator	
FDP on Recent Trends in	IBM India	Rs. 50,000	2016	Sponsorship for the	
Cryptography and Network				event	
Security 18 <sup>th</sup> - 22 <sup>nd</sup> January 2016				Worked as event	
				Coordinator	

# FDP/ Symposium Coordinated:

- 1. FDP on "Digital Forensics and Data Recovery", of Engineering, Pune, March 11-15, 2019
- 2. Symposium on "Information and Cyber Security Research", College of Engineering, Pune, Oct 6, 2018
- 3. FDP "Cyber Forensics and Information Security", College of Engineering, Pune, Dec 4-8, 2017
- 4. Symposium on "Cyber Security", College of Engineering, Pune, Nov 23-24, 2017
- 5. Symposium on "Information and Cyber Security Research", College of Engineering, Pune, Sept 16, 2017
- 6. Network System Administration & Security, College of Engineering, Pune, March 8-12, 2017
- 7. Recent Trends in Cyber Security, College of Engineering, Pune, 13<sup>th</sup> to 17<sup>th</sup> Feb 2017
- 8. One Day Workshop on Cyber Security Awareness, College of Engineering, Pune, Sept 17, 2016
- 9. Recent Trends in Cryptography and Network Security 18<sup>th</sup> 22<sup>nd</sup> January 2016
- 10. Two day symposium on "Emerging Trends in Information Security" 4-5 March 2010
- 11. Cyber Security 13<sup>th</sup>-15<sup>th</sup> Jan 2008
- 12. Information Security  $31^{st}$  Dec $2007 4^{th}$  Jan 2008
- 13. Faculty Development Programm on Multimedia Applications on Apple Systems (Co-Coordinator) 13<sup>rd</sup> Feb 2007 15<sup>th</sup> Feb 2007
- 14. Workshop on Computer Forensics & Data Recovery  $21^{\text{st}}$  - $22^{\text{nd}}$  Aug 2006
- 15. Workshop on Information Security- Digital Signature 18<sup>th</sup> -19<sup>th</sup> Aug. 2006

#### **FDP Attended:**

- 1. One week Winter School on "Optimization and optimal control: A data based approach", College of Engineering, Pune, 3<sup>rd</sup> to 7<sup>th</sup> December 2018
- 2. One week workshop on "Outcome Based Education and Accreditation", College of Engineering, Pune,  $2^{nd}$  to  $6^{th}$  July 2018

- 3. Embedded System Design: A Microcontroller Approach, College of Engineering, Pune, 20<sup>th</sup> Nov to 1<sup>st</sup> Dec. 2017
- 4. Recent Trends in Cyber Security, College of Engineering, Pune, 13<sup>th</sup> to 17<sup>th</sup> Feb 2017
- 5. Optimization and Optimal Control, College of Engineering, Pune, 15<sup>th</sup> to 21<sup>st</sup> Dec. 2016
- 6. Wavelet Transforms & its Applications, College of Engineering, Pune, 27<sup>th</sup> June to 8<sup>th</sup> July 2016
- 7. Select Topics in Signal Processing and Machine Intelligence with Hands- On College of Engineering, Pune 23<sup>rd</sup> May to 3<sup>rd</sup> June 2016
- 8. Recent Trends in Cryptography and Network Security, Jan 18-22, 2016, at College of Engineering, Pune
- 9. Embedded System Design using Altium's Integral Development Environment and FPGA, June 15-26, 2015, at College of Engineering, Pune
- 10. Embedded System Development Using DSPs, May 20-31, 2013, at College of Engineering, Pune
- 11. Machine Learning and Data Mining Approaches: A Research Perspective, March 28-April 06, 2013, at College of Engineering, Pune
- 12. Tool Assisted Software Analysis for Practical Applications, December 10-19, 2012, at College of Engineering, Pune
- 13. Scientific Computations on General Purpose Processing Units (SciCompGPU) June 18-22, 2012, at College of Engineering, Pune
- 14. A Graphical Programming Language LabView and Its Industrial Applications from 14<sup>th</sup> May to 25<sup>th</sup> May 2012 at College of Engineering, Pune
- 15. Neural Network from 13<sup>th</sup> June to 25<sup>th</sup> June 2011 at Sinhgad College of Engineering, Pune
- 16. Information Security, 6-10 July 2009, at COEP, Pune
- 17. Practical aspects of parallel processing at C-DAC, Pune from 21<sup>st</sup> Nov 2006 to 25<sup>th</sup> Nov 2006
- 18. Network Security at IIT Kharagpur from 8<sup>th</sup> May 2006 to 13<sup>th</sup> May 2006
- 19. Enhancing Teaching Excellence and Integration of Technologies in Class Room Teaching during 14<sup>th</sup> to 16<sup>th</sup> Sept 2005
- 20. Intelligent Control and Automation from  $10^{\text{th}}$  January to  $22^{\text{nd}}$  January 2005

- 21. Training Sun Solaris at Bangalore, Oct 2004
- 22. Advanced Digital Signal Processing From 22 March to 31st March 2004
- 23. Specification Techniques at TRDDC, Pune from 5<sup>th</sup> Jan 2004 to 9<sup>th</sup> Jan 2004
- 24. Program Analysis at TRDDC, Pune from 3<sup>rd</sup> Jan 2003 to 9<sup>th</sup> Jan 2003
- 25. VOIP at IISC Bangalore Nov 2002
- 26. Embedded system IIT Mumbai, May 2002

#### **Publication:**

## a) BOOKS:

Title of the Book	Publisher	Year	Edition
Cryptography and Information	PHI Learning, New Delhi	Jan	First
Security	ISBN-13: 978-8120335219	2009	
Cryptography and Information	PHI Learning, New Delhi	Jan	Second
Security	ISBN No. 978-81-203-5082-3	2015	
Cloud Computing	PHI Learning, New Delhi	Jan	First
	ISBN No. 978-81-203-5213-1	2016	
Computer Graphics	Laxmi Publication New Delhi	2000	First
Computer Graphics	Laxmi Publication New Delhi	2007	Second
Computer Graphics	Laxmi Publication New Delhi	2012	Third
	ISBN No. 978-81-318-0565-7		

## b) International Journal

- V. K. Pachghare et al., "Using Arduino And Wifi With Rssi To Control Led: An Iot Based Approach", International Journal Of Innovative Research In Technology, July 2017 | IJIRT | Volume 4 Issue 2 | ISSN: 2349-6002
- V. K. Pachghare et al., "Automated Update Mechanism using Streams and MD5
   Algorithm designed for Remote Clients", International Journal of Innovative Research
   in Science, Engineering and Technology, Vol. 6, Issue 6, June 2017
- 3. V. K. Pachghare et al., "A Comparative Study of Database Connection Pooling Strategy", International Research Journal of Engineering and Technology (IRJET), Volume: 04 Issue: 05 | May -2017

- 4. V. K. Pachghare et al., "Profiling REST Services with Advent of Aspect Oriented Modelling", International Journal of Innovative Research in Computer and Communication Engineering, Vol. 5, Issue 3, March 2017
- V. K. Pachghare et al., "Design of an efficient automation framework for the Web application", International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 5, Issue 5, May 2016
- 6. V. K. Pachghare et al., "Interactive Response System (IRS) with Text & Call Support in Contact Center Application", International Journal of Advanced Research in Computer Engineering & Technology (IJARCET), Volume 5, Issue 4, April 2016
- 7. V. K. Pachghare, "Security Mechanisms in Wireless Network", Journal of Network Security Computer Networks, Vol. 2 Issue 2, 2016
- 8. V. K. Pachghare, "Microservices Architecture for Cloud Computing", Journal of Information Technology and Sciences, Volume 2 Issue 1, 2016
- Sagar C. Gavande, Dr. V. K. Pachghare, Rahul Adhao, "Wireless Intrusion Detection System using Reputation", International Journal of Advanced Research in Computer Science and Software Engineering, Volume 5, Issue:4, 2015, ISSN: 2277 128X
- V. K. Pachghare, Amiya Chakraborty" The RSA Challenge: Urge for Advent of Neoteric Encryption System", International Journal of Computer and Internet Security, ISSN 0974-2247 Volume 6, Number 1 (2014), pp. 1-10, © International Research Publication House <a href="http://www.irphouse.com">http://www.irphouse.com</a>
- V. K. Pachghare, Avinash R. Kshirsagar, Rahul B. Adhao, "Hybrid Model for Adaptive-IDS using Machine Learning Approach", Journal of Network Security ISSN: 2321-8517 (online) Volume 2, Issue 2
- 12. Rahul B. Adhao, Avinash R. Kshirsagar, Dr. Vinod K. Pachghare, "NIDS Designed Using Two Stages Monitoring", International Journal of Computer Science and Information Technologies, Vol. 5 (1), 2014, 256-259 Impact Factor -2.93
- 13. Sharmila Kishor Wagh, Dr. Vinod K. Pachghare, Dr. Satish R. Kolhe, Survey on Intrusion Detection System using Machine Learning Techniques, International Journal of Computer Applications (0975 – 8887) Volume 78 – No.16, September 2013 IF- 2.52

- 14. Dr. Vinod Pachghare, Vinod Maid, "Contention Based Fair Scheduling Protocol for Wireless LAN", Indian Journal of Research, PARIPEX, Volume: 3 | Issue: 4 | May 2013. Impact Factor is 1.6714
- V. K. Pachghare, V. K. Khatavkar, Dr. Parag Kulkarni, "Pattern Based Network Security Using Semi-Supervised Learning", International Journal of Information & Network Security (IJINS) Vol. 1, No. 3, August 2012: 228 – 234, ISSN: 2089-3299
- V. K. Pachghare, V. K. Khatavkar, Dr. Parag Kulkarni, "Performance Analysis of Supervised Approach for Pattern Based IDS", IJCA Special Issue on "Network Security and Cryptography" NSC, 2011, pp. 20-23
- 17. V. K. Pachghare, V. K. Khatavkar, Dr. Parag Kulkarni, "Performance Analysis of Semi-Supervised Intrusion Detection System", IJCA Special Issue on "Network Security and Cryptography" NSC, 2011, pp. 15-19
- 18. V. K. Pachghare, "Building Intrusion Detection System Using AdaBoost Algorithm", International Journal of Computer Science and Security, Vol. (4), Issue (2) 2010.
- V. K. Pachghare, Vivek Patole, Dr. Parag Kulkarni, "Self Organizing Maps to Build Intrusion Detection System", International Journal of Computer Applications, Vol. 1, No. 8, 2010, pp. 1-4
- 20. V. K. Pachghare, Dr. Parag Kulkarni, Deven M. Nikam, "Overview of Intrusion Detection Systems", International Journal of Computer Sciences and Engineering Systems, Vol. 3, No. 3, 2009, pp. 265-268
- 21. V.K. Pachghare, Parag Kulkarni, Deven M. Nikam, "Neural Network Algorithms for Building Pattern Based Network Security", International Journal of Scientific Computing, Vol. 3, No. 1, 2009, pp. 37-37
- 22. V. K. Pachghare, "Watermarking of a color bitmap image", International Journal of Engineering Research and Industrial applications Vol. I, No. 1, 2008.
- V. K. Pachghare, "Predicate abstraction of C Program", International Journal of Computer Sciences and Engineering Systems Vol. 2, No. 1, Jan 2008
- 24. V. K. Pachghare, Dr. Parag Kulkarni, "Pattern Based Network Security: An Overview", International Journal of Computer Science and Network Security, Seoul, Korea Vol. 8, No. 10, 2008, pp. 314-318

25. V. K. Pachghare, "PACT – A new approach to self healing mechanism", International Journal of Computer Science and Network Security, Seoul, Korea Vol. 7 No. 10, Oct 2007.

## c) International Conferences

- Vinod Pachghare, Deepak Kshirsagar, Gayatri Patil, "Feature Reduction in Flow Based Intrusion Detection System", 3rd IEEE International Conference On Recent Trends In Electronics, Information & Communication Technology, 2018
- Snehalkumar Swaisarje, Vinod Pachghare, Deeapk Kshirsagar, "Malware Detection based on String Length Histogram using Machine Learning", 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT - 2018)
- 3. Rahul B. Adhao , Avinash R. Kshirsagar, Dr. Vinod K. Pachghare, "Reputation Based Fast Intrusion Detection, Proceedings of 3<sup>rd</sup> IRF International Conference, 10<sup>th</sup> May-2014, Goa, India, ISBN: 978-93-84209-15-5
- V. K. Pachghare, V. K. Khatavkar, Dr. Parag Kulkarni, "Pattern Based IDS using Supervised, Semi-supervised and Unsupervised approaches", CCSIT 2012, Part-I LNICST 84, Institute of Comp. Sc., Social Informatics & Telecom Engg. 2012, Springer, pp. 542-551
- 5. V. K. Pachghare, Dr. Parag Kulkarni, "Pattern Based Network Security Using Decision Trees And Support Vector Machine", 3<sup>rd</sup> International Conference on Electronics Computer Technology (ICECT), Kanyakumari, 2011 IEEE pp. 254-258
- 6. V. K. Pachghare, Dr. Parag Kulkarni, "Performance Analysis of Pattern Based Network Security", 2nd International Conference on Computer Technology and Development(ICCTD 2010) Cairo, Egypt, 2-4 Nov, 2010, IEEE, pp. 277-281
- 7. V. K. Pachghare, Dr. Parag Kulkarni, Deven Nikam, "Intrusion Detection System using Self Organizing Maps", International Conference on Intelligent Agent and Multi-agent Systems (IAMA) 2009

- 8. V. K. Pachghare, Dr. Parag Kulkarni, Deven Nikam, "Neural Network Algorithms for Building Pattern Based Network Security", International Conference on VLSI and Communication ICVCom, 2009.
- 9. U. Adsule, V. K. Pachghare and P. Kulkarni, "Efficient intrusion detection system models", Computer and Network Technology, proceedings of the international conference on ICCNT 2009, Chennai, India, 24 26 July 2009, pg 199-203.

## d) National Conferences

1. V. K. Pachghare, et. al., "Overview of Intrusion Detection System", Business Technologies Conference, Indore, (March 2009)

#### Admin:-

- 1) Ph. D. Coordinator
- 2) Ph. D. Admission
- 3) Member, Department Purchase Committee
- 4) Incharge, Department Library Committee
- 5) M.B.A. Admission
- 6) FY B. Tech Admission
- 7) Departmental Controller of Examination
- 8) Coordinator FY M. Tech. Computer Admission

#### 13.Other Information:

Worked as reviewer and session chair for various International Conferences.

Acted as Reviewer for the Book "Software Testing", McGraw Hill Dec 2015

Acted as Reviewer for the Book "Cryptography", Pearson Education in May 2006

Worked as member of Board of Studies, Computer Engineering, Pune University (2001-2006)

Working as member of Subject Board, Computer Engineering and Information Technology, COEP, Pune

Working as member of Board of Studies in Computer Engineering/Information Technology at Various Autonomous Colleges and KBC North Maharashtra University Jalgaon

Co-coordinator for Linux and Networking Course conducted in 2004

Worked as committee member for Director of Technical Education, Mumbai, University of Pune and BATU, Lonere

Worked as resource person on recent and state of the art topics in Computer Engineering and Information Technology.

Worked as M. Tech. Coordinator for Computer Engineering

Working as PhD coordinator for Computer Engineering

Signature sd/

Vinod Keshaorao Pachghare