

## Somaiya Vidyavihar University

<b>Name: Ms. Purnima Ahirao</b>			<b>E-mail:purnimaahirao@somaiya.edu</b>		
<b>Contact No: 9920392293</b>					
Department/Section: Information Technology					
College: K J Somaiya College of Engineering					
DOJ Somaiya:	Career Experience:	17_	Industry Experience:	0_Yrs	Teaching Experience:
01/01/2006	Yrs				_17 Yrs
Present Academic Designation: Assistant Professor			Present Administrative Designation:		

<b>Area of research/specialization and Courses Delivered</b>
<p>Research domain/interests/areas</p> <ol style="list-style-type: none"> <li>1. Web Development</li> <li>2. Information Security</li> <li>3. Cyber Security</li> <li>4. Blockchain Technology</li> <li>5. IoT Security</li> </ol> <p>Courses Delivered</p> <ol style="list-style-type: none"> <li>1. System and Web Security</li> <li>2. Information and Network Security</li> <li>3. Web Programming</li> <li>4. Cloud Computing</li> <li>5. Interdisciplinary Course- Cyber Security Awareness</li> <li>6. Information Theory and Coding</li> <li>7. Theory of Computers</li> <li>8. Vulnerability Analysis and Penetration Testing</li> <li>9. Software Reverse Engineering for Security Analysis</li> <li>10. Network Design and Network Security</li> <li>11. Audit course Application Development</li> <li>12. Cyber Security and Cyber Law</li> <li>13. Blockchain Technology</li> </ol>

Recognition as a teacher by any University	UG: Yes	PG:	Ph.D :
Details of Recognitions			
1. Somaiya Vidyavihar University			

<b>Education</b>					
Examination	Name of the Degree	University/Board	Institute/College	Year	CPI/SPI/ %Marks
Ph.D	Pursuing	NMIMS University	MPSTME, Shirpur	Admitted(21-22)	
PG	Computer Engineering	Mumbai University	Thadomal Shahani College of Engineering	2012	75.64
UG	Computer Engineering	Mumbai University	Rajendra Mane College of Engineering	2002	60.13

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<b>Notable Experience Details</b>					
Sr. No	Name of the organization	Designation	Date of Joining	Date of Leaving	Experience (Years)
1.					
2.					

<b>Research Accomplishments and Projects</b>		
No of students pursuing Ph.D as on date:		No of students completed Ph.D as on date:
No of students completed PG thesis / Project work as on date: 02		No of students / groups completed UG projects as on date:
Publications Total: 25	Number of Peer review Journal papers: 10	Number of Conference papers: 15

Details of Publications:

International Journals

1. Purnima Ahirao, Srijan Das, Rishabh Rupani, Suyash Jadhav, "Prevention Technique for Social Engineering based Internet Banking fraud", in International Journal of Cyber-Security and Digital Forensics (IJCSDF), December 2021.
2. Batavia, P., Ahirao, P., Patole, D. (2021). Challenges and Future Directions for Privacy Dashboard Design of Electronic Health Systems. In: Singh, J., Kumar, S., Choudhury, U. (eds) Innovations in Cyber Physical Systems. Lecture Notes in Electrical Engineering, vol 788. Springer, Singapore. [https://doi.org/10.1007/978-981-16-4149-7\\_15](https://doi.org/10.1007/978-981-16-4149-7_15)
3. Purnima Ahirao, Priya Gadgil, "Developing Secure Smart Cities: Overviews and Challenges", in International Journal of Computer Applications, volume 176, NO 31, June 2020, ISSN 0975 – 8887.
4. Deepti Patole, Purnima Ahirao, Yogita Borse, "Novel Teaching Learning and Evaluation Activities for Imbibing the Concepts of Cyber Security as Perennial Thought-Process in the Learners' Digital Life", in Journal of Engineering Education Transformations, Volume 33, Special Issue, ICTIEE 2020, January 2020.
5. Pooja Chandarana, Purnima Ahirao "Advance Image Steganography", INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN INFORMATION SECURITY, Volume 5, Issue 7, September 2018
6. Maulik Shah, Purnima Ahirao "Security Surveillance using Facial Recognition", INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN COMPUTER AND COMMUNICATION ENGINEERING, Volume 6, issue 6, June 2018, ISSN (Print): 2320 - 9798
7. "Multi Banking System Using Web Services", International Journal of Research and Scientific Innovation (IJRSI), International Peer Reviewed Refereed Journal, A Unit of Research and Scientific Innovation Society (RSIS), ISSN/ISBN No.: ISSN 2321-2705, June 2017
8. "EduAR: Transforming Education with Augmented Reality" INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN COMPUTER AND COMMUNICATION ENGINEERING, Volume 5, Issue 5, May 2017, ISSN (Print): 2320 - 9798.

9. "Improved Technique for Detecting Phishing Attack and Counter Attack" International Journal of Research and Scientific Innovation (IJRSI) | Volume IV, Issue VI, June 2017 | ISSN 2321–2705.
10. ""Live Vs Dead Computer Forensic Image Acquisition"(IJCSIT) International Journal of Computer Science and Information Technologies, Vol. 8 (3) , 2017, 455-457.

#### National Journals

1. Purnima Ahirao, "Improved Teaching Learning Process in Higher Education Institutes using ICT techniques as a requirement under Revised NAAC Framework." In National Seminar on Revised Accreditation Framework in August 2019.
2. Purnima Ahirao, Deepti Patole, Yogita Borse, "Imbibing the core Engineering concepts through pedagogy of Teaching- Learning Methodologies", National Conference on Exploring New Dimensions in Teaching Learning for Quality Education, in June 2019.

#### Conferences

1. Borse, Y., Ahirao, P., Mangukiya, M., Patel, S. (2021). A Novel Approach to Preserve DRM for Content Distribution over P2P Networks. In: Thampi, S.M., Lloret Mauri, J., Fernando, X., Boppana, R., Geetha, S., Sikora, A. (eds) Applied Soft Computing and Communication Networks. Lecture Notes in Networks and Systems, vol 187. Springer, Singapore.  
[https://doi.org/10.1007/978-981-33-6173-7\\_2](https://doi.org/10.1007/978-981-33-6173-7_2)
2. Agrawal, Saurabh and Ahirao, Purnima and kumar, saurabh and Dere, Pinak, Credit Score Evaluation of Customer Using Machine Learning Algorithms (MAY 7, 2021). Proceedings of the 4th International Conference on Advances in Science & Technology (ICAST2021), Available at SSRN: <https://ssrn.com/abstract=3867420> or <http://dx.doi.org/10.2139/ssrn.3867420Books/Book Chapters>
3. Vidya Agnas, Purnima Ahirao, "IMPROVED USE OF ETL TOOL FOR UPDATION AND CREATION OF DATA WAREHOUSE FROM DIFFERENT RDBMS", in 3rd International Conference on Advances in Science and Technology, SSRN, April 2020.
4. Jimit Shah, Anuya Padte, Purnima Ahirao," SangCTC- Improving Traditional CTC Loss Function for Optical Music Recognition, in IEEE International Conference on INNOVATING TECHNOLOGY FOR HUMANITY, in December 2019.
5. Yogita Borse, Deepti Patole, Purnima Ahirao, "Geo-Encryption: A location based encryption technique for data security", 2019 Fifth International Conference on Computing Communication Control and Automation (ICCUBEA), 2019, IEEE.
6. Purnima Ahirao, Vidya Agnas, "Digital Attendance System" in "2nd International Conference on Advances in Science and Technology (ICAST-2019)" in April 2019.
7. Purnima Ahirao, Yogita Borse, Deepti Patole, "Multi Banking System using Three level security" in International Conference on sustainable computing in Science, Technology and Management in February 2019.
8. Purnima Ahirao, Kushang Mehta, "Two factor authentication using smartwatch" in "National Conference on Recent Trends in Engineering, Science and Management" (SSJCET\_Conf\_2019)".
9. Yogita Borse, Anushka Chawathe, Purnima Ahirao ,Deepti Patole "Anonymity: A Secure Identity Management Using Smart Contracts" in International Conference on sustainable computing in Science, Technology and Management in February 2019.
10. Malvika Parulekar, Meet Vakil, Mehul Monani, Purnima Ahirao "Gas Meter Reading Application Using Image Processing" in International Conference on sustainable computing in Science, Technology and Management in February 2019.
11. Tanmay Dhaundiyal, Roshni Soni, Rohan Shah, Akul Rishi, Purnima Ahirao "Liv2Eat: A

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<p>Cross Platform Application to Digitalize the College Canteen Using Firebase” in International Conference on sustainable computing in Science, Technology and Management in February 2019.</p> <p>12. P. Ahirrao, Y. Borse and A. Kulkarni, "Conducting a Data Protection Audit using Block chain," in International Conference on Advancements in Smart, Secure and Intelligent Computing (ASSIC), Bhubaneswar, India, 2024, pp. 1-5,</p> <p><b>Book Chapter Published</b></p> <p>1. Yogita Borse, Purnima Ahirao, “Application of Blockchain Technology to Make Smart Cities Smarter” in Applications of Blockchain and Big IoT Systems: Digital Solutions for Diverse Industries, Apple Academic Press.</p>		
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<b>FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered</b>
<p><b>Attended</b></p> <ol style="list-style-type: none"> <li>1. Attended National Research Workshop on " In-text Citing &amp; Referencing in Research Papers” organized by MBien Analytica and Systems in association with Adonic Informatics through virtual mode on 24<sup>th</sup> August 2024.</li> <li>2. Attended 2 days Trio Conclave organized by K J Somaiya college of Engineering in Association with Bharat Tech foundation from 2<sup>nd</sup> April 2024 to 3<sup>rd</sup> April 2024.</li> <li>3. Attended 3 days Research workshop organized by Somaiya Vidyavihar University 29<sup>th</sup> January to 31<sup>st</sup> January 2024.</li> <li>4. Attended one week FDP on Cloud Computing and its Services organized by AC Patil college of Engineering from 1<sup>st</sup> January to 6<sup>th</sup> January 2024.</li> <li>5. Completed online course on Data Privacy Fundamentals on courseera platform by 29<sup>th</sup> June 2024.</li> <li>6. Attended Short on “Smart Computing” by DJ Sanghavi college of Engineering and Technology from 12th July 2021 to 16th July 2021</li> <li>7. Attended workshop on “Develop your learning and research skills using IEEE Xplore Digital Library” organized by IEEE on 27th July 2021</li> <li>8. Attended Summit on “National Cyber Defence” organized by on 27th July 2021</li> <li>9. Attended workshop on “Python Development” organized by Teaching Learning centre IIT Bombay on 28th October to 30th October 2021.</li> <li>10. Attended AICTE approved one week faculty development program on “deep Learning and its Applications organised by K J Somaiya Institute of Engineering and Information Technology from 13 Dec to 18th Dec 2021</li> <li>11. Attended session on “Project e-saksham” organized by ministry of education, all india council of technical education, and cyber peace foundation on Ist Febraury 2022.</li> <li>12. Certificate of Participation in 2 days National Conference on Industry 4.0 conducted by Department of Industrial Electronics and Computer Engineering on 28th to 29th October 2020 organised by VPM’s Polytechnic Thane.</li> <li>13. Certificate of Completion with Distinction for IUCEE International Certification for Teaching Soft Skills.</li> <li>14. Completed the AICTE-ISTE approved Orientation/Refresher Programme on “Developing Secure IOT Applications” held during 14.12.2020 to 19.12.2020 organized by Shah &amp; Anchor Kutchhi Engineering College, Mumbai, Maharashtra.</li> <li>15. Actively Participated in National Level Webinar on Cyber Security organised by Department of Information Technology, KJSCIET.</li> </ol>

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16. Attended Webinar on Cross platform mobile app development using flutter organised by BVICAM, New Delhi.
17. Attended a virtual 3days s Workshop on “Lightweight cryptography conducted on 1st 3 rd October , 2020 by DSCI.
18. Actively in Two days Webinar on IoT Security organised by CDAC Hyderabad and SETS

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Chennai.

14. Participated in International Faculty Development Program on World of Cyber Physical system and future Robotics of Industry: Cobotics organised by Department of Electronics and Telecommunication Shirpur.
15. Completed one year course on Engineering Education Research by Indo Universal Collaboration for Engineering Education.
16. Attended Web Series on Threat Intel and Dark web organised by Cyberfrat in association with Volon the cyber security product and technology organization.
17. Attended one week faculty development program on Blockchain Technologies for smart contracts organised by Thadomal shahani college of Engineering, mumbai from 3rd may to 6th may 2020.
18. Attended one week faculty development program on Advances in IoT organised by Fr. Canceicao Rodrigues college of Engineering, Mumbai from 29th may to 2nd June 2020.
19. Completed Hands on workshop on Effective and Efficient Online Teaching in the Age of Corona organised by IIT Bombay.
20. Attended National workshop on Fine tuning research planning using Elsevier tools: Sciencedirect, scopus and mendeley organised by K. J. Somaiya college of science and commerce in Collaboration with ELSEVIER on 25th April 2020.
21. Attended webinar "Somaiya Research Interventions in Engineering and Technology" organised by Somaiya Institute for Research and Consultancy in collaboration with KJSCE and KJSCEIT on 29th may 2020.
22. Attended one week faculty development program on Digi-Tech Teaching Learning-2020 organised by Sinhgad Institute of Technology, in association with Vinnovate Technologies , Lonavala from 18th may to 22nd may.
23. Attended one week faculty development program on Beyond the Boundaries: Reinventing Horizons organised by Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur from 16th may to 20th may.
24. Attended STTP on Software as a Service organised by Annasaheb Dange college of Engineering and Technology from 5th June to 7th June 2020
25. Completed 12 weeks online certification program on “ Introduction to IoT” organised by Swayam NPTEL from July to Oct 2019
26. Completed 8 weeks online certification program on “ Introduction to Research” organised by Swayam NPTEL from August 2019 to Oct 2019.
27. Attended XII National Cyber Defence Summit organised by Dr Babasaheb Ambedkar Institute of Technology and National Cyber safety and Security Standards, Bangalore from 18th Oct 2019 to 19th Oct 2019
28. Attended one day Seminar on New Education Policy at Gogate Joglekar college in Ratnagiri in July 2019
29. Attended one week AICTE-ISTE sponsored STTP on Industrial IoT in K J Somaiya college of Engineering from 10th June 2019 to 14th June 2019.
30. Attended 12 weeks online course on Blockchain use cases and architecture by IIT Bombay from Jan 2019 to April 2019.
31. Attended 8 weeks online course on Information Security-5 by IIT Bombay from Jan2019 to March 2019.
32. Attended Two day’s International Conference on Cyber FIF conducted by IIT Bombay in association with CSI on 27th and 28th Jan 2019.
33. Attended one day International Workshop on “SmartContract Using Blockchain Technology” in VJTI college, Mumbai on 26th Feb 2018.
34. Attended 2 days Accenture Learning Symposium on “Deep Learning and Devops” in Mukesh Patel College of Engineering from 5th to 6th Feb 2018.
35. Attended 2 days seminar on Efficient Research Methodology in Terna College of Engineering from 5th Jan to 6th Jan 2018.
36. Attended Faculty Development Programme (FDP) on "Use of ICT in Education for Online

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<p>and Blended Learning", under the aegis of Pandit Madan Mohan Malviya National Mission for Teachers and Teaching (PMMMNTT)</p> <p>37. Foundation Program in ICT for Education" FDP101x: 27 July 2017 till 31 August 2017</p> <p>38. Pedagogy for Online and Blended Teaching-Learning Process" - FDP201x: 14 September 2017 till 12 October 2017.</p> <p>39. One week STTP on Internet of Things in K.J. Somaiya college of Engineering from 4th Jan 2016 to 8th Jan 2016.</p> <p>40. Attended BCUD Sponsored two days National Seminar on "Cyber Security and Evolving Technology" at MKSSS"s Cummins College of Engineering for Women, Pune on 2nd and 3rd February 2017.</p> <p>41. Attended two week STTP on Advanced Computational Tools in K.C. college of Engineering from 15th Dec to 26th Dec 2014.</p> <p>42. Attended One week STTP on Object Oriented programming Methodology in Sardar Patel Institute of Technology from 8th July 2013 to 12th July 2013.</p> <p>43. Attended One week STTP on Mobile Computing and Wireless Communication in Don Bosco Institute of Technology from 1st Dec 2008 to 5th dec 2008.</p>
<p><b>Organized</b></p> <ol style="list-style-type: none"> <li>1. STTP on "Blockchain and Security" from 19<sup>th</sup> Dec to 23 Dec 2022.</li> <li>2. STTP on "Digital Security" from 27<sup>th</sup> June to 2<sup>nd</sup> July 2016.</li> </ol>
<p><b>Delivered</b></p> <ol style="list-style-type: none"> <li>1. Conducted one week AICTE-ISTE sponsored STTP on "Cyber Security and Laws" in Shivajirao Jondhale College of Engineering, Asangaon from 24th June to 29th June 2020.</li> <li>2. Conducted two day Hands-on Session on Blockchain Technology at Network Intelligence India Pvt. Ltd., Mumbai on 10th and 11th October 2019.</li> <li>3. Conducted two day Hands-on Session on Internet of Things at Network Intelligence India Pvt. Ltd., Mumbai on 25th and 26th Febraury 2020.</li> <li>4. Deliverd Session on "Blockchain Technology" at Pillai College of Engineering.</li> <li>5. Deliverd hands on session on "Blockchain Technology" at K J Somaiya college of Science and Commerce.</li> <li>6. Delivered session on "Security of IoT" for cyberfrat India</li> <li>7. Delivered webinar on "Cyber Security Perspective due to Digital Transformation during Covid 19 Pandemic" at Rajendra Mane College of Engineering, Ratnagiri.</li> <li>8. Delived lecture on Blockchain Technology for the TY students of Information Technology Department.</li> <li>9. Delivered Lecture on "BlockChain Technology" for Students in Rajendra Mane College of Engineering, Ratnagiri.</li> <li>10. Delivered Lecture Session on Blockchain technology for TY Students in Fr. Agnel College of Engineering, Bandra, Mumbai.</li> <li>11. Conducted Session on " Active Teaching Learning" For Faculty in Rajendra Mane College of Engineering, Ratnagiri.</li> <li>12. Delivered Lecture on "Cyber Security Awareness" for SY Students in Don Bosco College of Engineering , Vidyavihar, Mumbai.</li> <li>13. Delivered Lecture on "Cyber Security Awareness" for Students in MIT College, Bandra, Mumbai.</li> <li>14. Conducted Workshop on " Digital Forensics" for Students of K J Somaiya college of Science and Commerce, Mumbai.</li> <li>15. Delivered Expert session on Devops Technology for Students of K J Somaiya college of Science and Commerce, Mumbai.</li> </ol>

<b>Notable Key Scholastic Achievements</b>	
1.	Received certificate of appreciation for mentoring under NPTEL online certification course for

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	Introduction to Research.
2.	Received certificate of appreciation for mentoring under NPTEL online certification course for Ethical Hacking course.
3.	Academic mentoring for “Automate identification and recognition of handwritten text from an image” in association with TCS ion

<b>Notable Positions and Responsibility</b>	
1.	Life Member of Indian Society of Technical Education, New Delhi, India, since 2009.
2.	Executive Member of “Cyberfrat”, Enterprise Risk management community with motive to help people understand the risk of operating in digital world – providing the ability to detect, investigate and respond cyber threats.
3.	Co-organized Webinar on “Cyber Laws” of Mr. Naavi as the Expert guest speaker, organized by Department of Information technology, KJSCE, Mumbai on 5th June 2020.
4.	Co-organized Webinar on “Understanding Cyber Security” of Mr. Rakshit Tandon as the Expert guest speaker, organized by KJSCE, in association with Cyber Peace foundation and AICTE and on 26th March June 2022.
5.	Peer Review committee member for Digital forensic journal DN46.
6.	Reviewer for International Journal of Cyber-Security and Digital Forensics (IJCSDF).
7.	Reviewer for Journal of Engineering Education Transformations, publisher- Indo US Collaboration for Engineering Education (IUCEE)
8.	Reviewer member of International Research Journal of Innovations in Engineering and Technology(IRJIET)
9.	Sub reviewer for Congress on Intelligent Systems CIS 2020 World Conference in Virtual Format Organized by Soft Computing Research Society
10.	Reviewer for Seventh International Conference on Transformations in Engineering Education(ICTIEE 2020).
11.	Reviewer for IEEE International Conference on Advances in Computing, Communication and Control(ICAC3 19).
12.	Reviewer for Second International Conference on Sustainable Computing in Science, Technology & Management (SUSCOM-2020)
13.	Reviewer for Wiley Publications.
14.	Reviewer for HBRP publications.
15.	Reviewer for International Research Journal of innovations in Engineering and Technology.
16.	Reviewer for conference ICRTCIS
17.	Reviewer for IGI global Journal

Date: 13 / 02 / 2023

Signature of Faculty Member