

Devesh C. Jinwala



*" Not everything that counts can be counted and not everything that can be counted, counts."
– Sir Albert Einstein*

Basic Profile & Contact Details

- o Date of Birth: nn xxx 1964
- o Affiliation: Professor(HAG) in Computer Science & Engg., Sardar Vallabhbhai National Institute of Technology, Surat, (Jun 2019 - continuing)
- o email: dcjinwala@acm.org, dcj@svnit.ac.in
- o homepage: <http://www.svnit.ac.in/dcj/>
- o Dial:+912612201612(O), +919426611777(Cell), +919265135867(Cell)

Academic Qualifications

- o Ph. D (Computer Engineering), M. E. (Electrical Engineering), B. E. (Electronics Engineering)

Additional Administrative Responsibilities/Roles

- o Dean, Research & Consultancy, SVNIT (Feb 2021 – continuing)
- o Dean, Alumni & Resource Generation, Additional Charge, SVNIT. (Feb 2021 – continuing)
- o Adjunct Professor in CSE , IIT Jammu (Jan 2020 - continuing)
- o Adjunct Professor in CSE , CHARUSAT University (Jan 2021 - continuing)

Designations held: In the past

- o Professor-on-deputation in Computer Science & Engg., IIT Jammu (July 2018 - Dec 2019)
- o Visiting Professor, Invited, Daniel Felix Ritchie School of Computer Science and Engineering, University of Denver, USA (July 2016 - Jun 2017)
- o Professor, Computer Engineering Dept., SVNIT (Jun 2011 – Jun 2019)
- o Associate Professor, Computer Engineering Dept., SVNIT (Jan 2006 – Jun 2011)
- o Assistant Professor, Computer Engineering Dept., SVNIT (Oct 1998 – Dec 2005)
- o Lecturer, Electronics Engineering Dept., SVRCET (Jan 1991 – Oct 1998)

Additional Responsibilities/Roles: In the past

- o Dean, Faculty Affairs IIT Jammu (Aug 2018 - Feb 2021)
- o Head, Computer Science & Engineering Dept., IIT Jammu (Jul 2018 – Dec 2019)
- o Professor-In-Charge, International Collaborations, SVNIT (Sep 2020 – Sep 2022)
- o Dean, Research & Consultancy, SVNIT (Feb 2015 – July 2016)
- o Dean, Faculty Welfare, SVNIT (Feb 2013 – Jun 2014)
- o Head, Department of Computer Engineering, SVNIT (Jul 2014 – Dec 2014)
- o Head, Department of Computer Engineering, SVNIT (Feb 2010 – Feb 2012)
- o Professor Incharge, Central Computer Center, SVRCET (Oct 2002 – Jan 2010)
- o Systems Manager, Central Computer Center, SVRCET (Aug 1997 – Oct 2002)

Funds/Research Grants/Projects

1. One of the project team members at SVNIT, Surat in the **Australia-India Water Centre (AIWC) Project** that consists of Universities/Organizations of Australia (lead by Western Sydney University) and Institutes/Organizations of India (lead by IIT Guwahati) with the scope to develop long-term collaboration in water research, capacity building and knowledge and technology transfer, particularly focusing on water and food security, safe drinking water supplies, river health, water-energy-food nexus, water for liveable cities and other related aspects of mutual benefits to Australia and India.
2. Allocated Rs 96.08 crores for the project titled **Information Security Education and Awareness Project Phase II** of Ministry of Communications and Information Technology, at SVNIT. Chief Investigator: Jan 2021 onwards, July 2017 - July 2018. Joint-Investigator from April 2015 to July 2016. Ongoing.
3. Coordinator (for a short period of 12 months ONLY) of the **Information Security Education and Awareness Project Phase I** of Ministry of Communications and Information Technology, at SVNIT.
4. Allocated Rs. 48.864 lakhs for the project titled "**A Secure Data Aggregation System and an Intrusion Detection Systems for Wireless Sensor Networks**", Sponsored by the Department of Electronics and Information Technology, Ministry of Communications and Information Technology, Govt of India, New Delhi. Project Commencement: Sep 2011 – Project Completed: Mar 2015
5. Allocated Rs 7.5 lakhs under the RESPOND programme by ISRO for the Research Project titled "**Design and Implementation of the Security Attributes driven Energy Efficient Link Layer Security Architecture for Wireless Sensor Networks**".
Project Commencement: Nov 2009 – Project Completed: Nov 2012.
6. Allocated Rs 2.44 lakhs for the project titled "**Investigating Anti-Replay Algorithms for Link Layer Security Architecture in Wireless Sensor Networks**", Sponsored by the Gujarat Council of Science and Technology, Govt of Gujarat, Gandhinagar, under the Minor Research Project Scheme.
Project Commencement: April 2013 – Project Completion: March 2016.
7. Allocated Rs 7.5 lakhs under the MHRD, Gol's scheme Thrust Areas in Technical Education for the project titled "**Development of a Computer Aided Software Engineering Lab**".
Project Commencement: 1998 – Project Completion: 2001.

Awards

- Senior Member, ACM
- Senior Member, IEEE
- Appreciation Certificate for developing MS Cyber Security program and for dedication in research and teaching, from University of Denver, USA, 2017
- Appreciation Certificate for Contributions in Faculty Development, Staff and Human Resource Development and for Contributions to the Vision of IIT Jammu, from IIT Jammu, 2021
- Recognition of Service Award Certificate in Appreciation for Contributions to the ACM as Faculty Sponsor from ACM, 2014.

Technical & Professional Services

1. **On the Expert Committee** for reviewing the Funded Research Project Proposals, DRDO Labs, for the project proposals submitted to DRDO at the Central University of Jammu, Jammu.
2. **One of the Program Chairs** for ISEA ISAP Conference 2019, and editor along with the Editors Nandi, S., Vijay Laxmi, M S Gaur, Parvez Faruki, for the ISEA ISAP Conference 2019. The proceedings published in the Springer Communications in Computer and Information Science, 2019.
3. **On the reviewer panel** of ISEA ISAP Conference 2021, The Computer Journal , Transactions on Emerging Telecommunications Technologies, Elsevier's Computer Networks Journal; IET Security Journal; the International Journal of Computer Systems Science and Engineering; Frontiers in Blockchain; Journal of Ambient Intelligence and Humanized Computing; Inderscience's International Journal of Information and Computer Security; British Journal of Mathematics & Computer Science; Journal of King Saud University-Computer and Information Sciences ;

International Journal of Computer Information Systems and Industrial Management Applications; ICT Academy's ICTACT Journal on Communication Technology; GIT - Journal of Engineering and Technology, Gandhinagar.

4. **On the Program Committee**, IWBT2022: the 2nd International Workshop on Blockchain Technologies, 2021; IEEE sponsored ICSCCC 2021: 2nd International Conference on Secure Cyber Computing and Communications; IC3 2019: Algorithms, Applications, Education, Systems (Hardware & Software) track. Also, **on the program committee of the INDICON 2019, ICDCIT 2018, International Multi-Conference for Computer Scientists and Engineers, Hong Kong (2011 to 2018); ICIDCIT at KIIT University, Bhubaneswar (2013); International Conference on Security and Management (SAM - 2012 to 2018); 2nd IEEE International Conference on Emerging Technology Trends in Electronics, Communication and Networking (ET2ECN-2014); IEEE International Conference on Computer and Communication Technology (ICCCCT – since 2010); International Conference on Current Trends in Technology at Institute of Technology, Nirma University, Ahmedabad (since 2011); UGC Sponsored International Conference on Technology and Information Systems (ICTIS-2010); International Conference at Parul University, Vadodara.**
5. **On the reviewer panel of IEEE India Conference on Emerging Trends and Innovations in Technology (INDICON – since 2013); The SPRING 4th International Conference on Knowledge Generation, Communication and Management (KGCM 2010), Florida, USA; International Conference on Contemporary Computing (IC3 2015); IEEE International Symposium on Signal Processing and Information Technology, 2014, IIT, New Delhi; International Conference on Current Trends in Technology at Institute of Technology, Nirma University, Ahmedabad (since 2011), IEEE TENSYP 2015 held at Ahmedabad, India (One of the Track Chairs in the Security and Privacy Track).**
6. **Member, Board of Studies or equivalent** at DA-IICT, Gandhinagar, CHARUSAT University, Anand(Gujarat); Pandit Deen Dayal Energy University, Gandhinagar(Gujarat), S G S Institute of Technology & Sciences, Indore (MP); Sarvajanic University, Surat (Gujarat), Parul University, Vadodara (Gujarat). In the past at Nirma Institute of Technology; Rashtriya Raksha University, Gandhinagar.

Countries Visited / Presentations Abroad

- (1) Presented a paper titled "BTG-RKASE: Privacy Preserving Revocable Key Aggregate Searchable Encryption with Fine-grained Multi-delegation & Break-The-Glass Access Control" at the SECRYPT 2019 : The 16th International Conference on Security and Cryptography held as part of the International Joint Conference on e-Business and Telecommunications at Prague, The Czech Republic, on July 27th, 2019.
- (2) Presented a paper titled "Performance Analysis of Symmetric Key Ciphers in Linear and Grid based Sensor Networks" at the 4th International Conference on Cryptography and Information Security (CRIS 2018), on Feb 25, 2017, at Dubai.
- (3) Served as a Visiting Professor at Daniel Felix Ritchie School of Computer Science and Engineering, University of Denver, **Denver, Colorado (USA)** from July 2016 to June 2017. Taught the courses viz. **Security in Resource Constrained Environments, Secure Software Engineering, Computer Networking, Network Security, Introduction to Computer Systems, Introduction to Computer Theory.** Awarded the Appreciation Letter for "highly esteemed contributions in developing and implementing the MS in Cyber Security Program and for excellence in teaching and research. outstanding services to Teaching and Research."
- (4) Attended the **Inaugural Asia ICS Cyber Security Conference 2017 (AICSC2017)**, Singapore, Singapore. - 27th and 28th March 2017.
- (5) Presented a paper on **Malleability Resilient Concealed Data Aggregation** authored by Keyur Parmar, Devesh C Jinwala, at 20th EUNICE Open European Summer School and Conference (EUNICE 2014), Telecom Bretagne, **Rennes, France** during the period Sep 1st-3rd, 2014
- (6) Presented a paper on **A Peer-to-Peer multiway tree network with efficient range query search using multidimensional indexing** (authors: Shivangi Surati, Devesh C. Jinwala, Sanjay Garg) at the 4th International Conference on Digital Information and Communication Technology and its Applications, DICTAP 2014, at **Bangkok, Thailand** during the period May 6th-8th, 2014.
- (7) Attended the 34th **International Conference on Software Engineering** at Kongresshaus, **Zurich, Switzerland**, during the period June 6th-8th, 2012.

- (8) Presented a paper/talk on **Analysis of Significant Components for Designing an Effective Dynamic Load Balancing Algorithm in Distributed Systems** (authors: Mayuri Mehta, Devesh C Jinwala) at the 3rd International Conference on Intelligent Systems, Modeling and Simulation, ISMS2012, at **Kota Kinabalu, Malaysia**, Feb. 2012.
- (9) Presented a paper/talk on **Exploring Homomorphic Encryption in Wireless Sensor Networks** (authors: Bhumika Patel, Devesh C Jinwala) at the International Conference on Informatics Engineering & Information Science (ICIEIS 2011) at **Kuala Lumpur, Malaysia**, Nov. 2011.
- (10) Presented a paper/talk on **Improving AODV Protocol against Blackhole Attacks** (authors: Nital Mistry, Devesh C Jinwala, Mukesh A Zaveri) at the International Conference on Control and Automation under the International Multi-Conference of Engineers and Computer Scientists, **Hong Kong, SAR of China**, Mar. 2010.
- (11) Presented a paper/talk on **Optimizing the Block Cipher Resource Overhead at the Link Layer Security Framework in the Wireless Sensor Networks** (authors: Devesh C Jinwala, Dhiren Patel, Kankar Dasgupta) at the International Conference on Wireless Networks at World Congress on Engineering, **Imperial College, London**, Jul. 2008.
- (12) Presented a paper/talk on **Configurable Link Layer Security Architecture for Wireless Sensor Networks** (authors: Devesh C Jinwala, Dhiren Patel, Kankar Dasgupta) at the International Conference on Wireless Networks at World Congress on Engineering, **Imperial College, London**, Jul. 2008.

Research Areas of Interest

- Information and Communications Security and Privacy Issues
- Machine Learning in Information Security and Privacy including Adversarial Machine Learning
- Security and Privacy Issues in Resource constrained Environments and the Internet of Things
- Software Requirements Specifications and Conflict Resolution in Non-functional Requirements

Publications statistics

- Google Scholar h-index: 22, i10-index: 50
- DBLP count of publications: J39, C29, P2, E1.
- Scopus Author ID: 25961011000, publications count: 93, h-index: 14
- PUBLONS Web of Science ID: C-9322-2012, Publications: 57, h-index: 9

Ph D Research Work Supervision

Ph D Scholars Graduated

1. Mayuri A. Mehta (Graduating year: 2014).
2. Vivaksha J. Jariwala (2014).
3. Doshi Nishant (2014).
4. Sankita J. Patel (2015).
5. Nirali R. Nanavatil (2015)
6. Rashmi R. Phalanikar (2015)
7. Shivangi K. Surati (2016)
8. Ami T. Choksi (2016)
9. Keyur Parmar (2016)
10. Pawan R. Bhaladhare (2016)
11. Hasmukh Patel (2016)
12. Nilam A. Surati (/* Reviewer corrections not submitted - hence defence pending*/)
13. Kaushal Shah (2018)
14. Dhruvi Sharma (2019)
15. Mukti Padhya (2020)
16. Unnati S. Shah (2022, as a co-Supervisor)

Ph D Scholars Continuing

1. Himanshu Patel (Year of admission: 2015).

2. Shivanshu Mehta (2015).
3. Anshuman Patel (2015).
4. Sourabh Bhaskar (2020)
5. Krishnaraj B (2020)

Ph D Thesis Reviewed

1. Ms Sweta Saharan, "Privacy Preserving Data and Computation Offloading in Mobile Cloud Computing", National Institute of Technology, Jaipur, Supervisor : Prof Manoj Singh Gaur, Prof Vijay Laxmi, Prof Bezawada Bruhdeswar, 2021.
2. Mr Hemkumar D, "Study of Data Correlation's impact on Privacy Leakage in Privacy Preserving Models", National Institute of Technology, Warangal, Supervisor : Prof Dr. S. Ravichandra and Prof. D.V.L.N. Somayajulu, 2021.
3. Mr Tikaram Sanyashi, "Security Analysis of Homomorphic Encryption Schemes", Indian Institute of Technology, Bombay, Supervisor : Prof Bernard Menezes, 2021.
4. Mr.Ganesh Rajaram Pathak, "A Secure Framework for wireless Sensor Network", Sathyabama Institute of Science & Technology, Supervisor: Dr.M.S.Godwin Premi, 2021
5. Ms Nikita Singh, "An Efficient Distributed Ledger Technology based E-Governance Framework", National Institute of Technology, Raipur, Supervisor : Prof Manu Vardhan, 2021.
6. Ms Vineeta Jain, "Analysis and Detection of Privacy Leaks in Android", Malaviya National Institute of Technology, Jaipur, Supervisor : Prof Manoj Singh Gaur, Prof Vijay Laxmi, Prof Mohamed Mosbah, 2020.
7. Mr D Venkata Naga Siva Kumar", "Precision and Privacy Preserving Multi-Keyword Search over Encrypted Data", National Institute of Technology, Surathkal, Supervisor : Prof Shanthi Thilangam, 2020.
8. Mr Nileshchandra K. Pikle, "Parallelization of Finite Element Method on Graphics Processing Unit", Viswesvarya National Institute of Technology, Nagpur, Supervisor : Prof Shailesh Sathe, 2019.
9. Mr Neeraj Garg, "Providing Context and User Preferred Services using Efficient Mobility Prediction Model", National Institute of Technology, Kurukshetra, Supervisor : Prof J S Lather, 2018
10. Ms Shweta Bhandari, "Analysis Techniques for Intra and Inter App(s) in Android", Malaviya National Institute of Technology, Jaipur, Supervisors: Prof Manoj Singh Gaur, Prof Vijay Laxmi, Prof Akka Zemmari, 2018.
11. Mr Gaurav Singhal, "QoS-aware Multicast Routing Protocol in MANETs", Malaviya National Institute of Technology, Jaipur, Supervisors: Prof Manoj Singh Gaur, Prof Vijay Laxmi, Prof D Vijay Rao, 2017.
12. Ms Shalvi Dave, "Network Access and Admission Restriction using Traffic Analysis and Vulnerability Detection ", Gujarat Technological University, Gandhinagar, Supervisor : Prof Bhushan Trivedi, 2016.
13. Monica Gahlawat, "Virtual Machine Allocation In Federated Clouds" Gujarat Technological University, Gandhinagar, Supervisor : Prof Priyanka Sharma, 2016
14. Joshi Gopalkrishna, "Optimisation of Data Quality Dimensions of Distributed and Co-Operative Information Systems", Jawaharlal Nehru Technological University, Hyderabad, Supervisor : Prof V Kamakshi Prasad 2015
15. Mrs Seema Ladhe, "A Resource Efficient Common Protection Path Approach for MPLS-based Recovery ", Narsee Monjee Institute of Management Studies, Mumbai Supervisor : Prof Vijay T. Raisinghani, 2015
16. Ms Namita Tiwari, " A Study of Proxy Signature and its Variants", Motilal Nehru National Institute of Technology, Allahabad, Supervisor : Prof Sahadeo Padhye, 2014.
17. Mr Sudarshan Patel, "Investigation and Comparative Studies of Algorithms for Collection of Unrefered Memory in Real Time and Distributed System ", Sardar Patel University, Supervisor : Prof V K Thakar, 2014
18. Mr Premchand Ambhore, "Carapace for Internet Security", Sant Gadge Baba Amravati University, Supervisor: Prof B B Meshram, 2014

19. Mr Navaneet Kumar Ojha, " A Study of RSA type Cryptosystem and its Weak Keys ", Motilal Nehru National Institute of Technology, Allahabad, Supervisor : Prof Sahadeo Padhye, 2013.
20. Mr Hemal Shah, "Investigations relating to Efficient Data Transmission and Reception in Adhoc Network", Ganpat University, Kherva., Supervisor : Prof Y. P. Kosta, 2013
21. Mr Kiran Amin, "Sequential Sequence Mining in Large Databases ",Ganpat University, Kherva Supervisor: Prof J. S. Shah, 2012.

M Tech Dissertation Supervision

- o *In all, supervised 46 MTech dissertations and 3 MTech(Research) students, till date.*

List of Publications

Books/Monographs/Book Chapters

- (1) Sharma, Dhruvi P., and Devesh C. Jinwala. Book chapter titled "Multi-Keyword Searchable Encryption for E-Health System With Multiple Data Writers and Readers." In the book "Implementing Data Analytics and Architectures for Next Generation Wireless Communications". Editors: Bhatt, Chintan and Neeraj Kumar, Ali Kashif Bashir, and Mamoun Alazab, 107-131. Hershey, PA: IGI Global, 2022. <http://doi:10.4018/978-1-7998-6988-7.ch007>
- (2) Vivaksha Jariwala, Devesh C Jinwala. Book chapter titled, "Chapter 4 - AdaptableSDA: secure data aggregation framework in wireless body area networks." In the book "Advances in ubiquitous sensing applications for health-care, Wearable and Implantable Medical Devices." Editors: Nilanjan Dey, Amira S. Ashour, Simon James Fong, Chintan Bhatt, Academic Press, Volume 7, Pages 79-114, ISBN 9780128153697, <https://doi.org/10.1016/B978-0-12-815369-7.00004-5>. 2020
- (3) Editors: Nandi, S., Devesh C Jinwala, Vijay Laxmi, M S Gaur, Parvez Faruki. Proceedings of the ISEA ISAP Conference 2019. Communications in Computer and Information Science, Springer, 939, pp. v-vi. 2019.
- (4) Keyur Parmar, Devesh C Jinwala. Book chapter titled Malleable Cryptosystems and Their Applications in Wireless Sensor Networks published in the book Computer and Network Security Essentials, Editor :Kevin Daimi, Springer International Publishing, Sep 2017. eBook ISBN 978-3-319-58424-9, DOI 10.1007/978-3-319-58424-9, Hardcover ISBN 978-3-319-58423-2.
- (5) Nirali Nanavati, Devesh C Jinwala. Book chapter titled Information-Theoretically Secure Privacy Preserving Approaches for Collaborative Association Rule Mining published in the book Computer and Network Security Essentials. Editor :Kevin Daimi, Springer International Publishing, Sep 2017. eBook ISBN 978-3-319-58424-9, DOI 10.1007/978-3-319-58424-9, Hardcover ISBN 978-3-319-58423-2
- (6) Rutvij Jhaveri, Narendra M Patel, Devesh C Jinwala. A Composite Trust Model for Secure Routing in Mobile Ad-Hoc Networks published in the book Ad Hoc Networks Editors: Jesus Hamilton Ortiz and Alvaro Pachon de la Cruz, May 2017. Intech Publications. DOI: 10.5772/66519 ISBN 978-953-51- 3110-6, Print ISBN 978-953-51-3109-0.
- (7) Editor for the Proceedings of the 9th **National Workshop on Cryptology, 2009** organized under the aegis of the Cryptology Research Society of India and sponsored by the Department of Science and Technology, Ministry of Information and Communication Technology and Council of Scientific and Industrial Research
- (8) Devesh Jinwala, Bankim Patel; "Fundamentals of Computers and Programming in C" published by Benison Education, ISBN No: ISBN No:81-88894-00-1, 2003.
- (9) Contributed a chapter titled "Karya Padhhati" in a Vernacular book titled "Computer ni Bolbala" compiled by Dr Nagin Modi and published by R R Sheth and Company, Ahmedabad, 1993

Publications - International Journals

(Only those indexed on DBLP, SCOPUS, SCI or SCIE are listed)

- (1) Anshuman Patel, Devesh Jinwala. "A reputation-based RPL protocol to detect selective forwarding attack in Internet of Things." In The International Journal of Communication Systems. Volume 35, Issue 1, 2022. (DBLP-SCI-SCOPUS)

- (2) Dhruvi Sharma, Devesh C. Jinwala. "Simple Index based Symmetric Searchable Encryption with Result Verifiability." In: *Frontiers Computer Science*, Volume 15, Issue 2, pp.152805, Higher Education Press-Springer, 2021. (DBLP-SCIE-SCOPUS)
- (3) Kaushal A. Shah, Devesh C. Jinwala: "Privacy preserving secure expansive aggregation with malicious node identification in linear wireless sensor networks" In: *Frontiers Computer Science*, Volume 15, Issue 6, pp.156813, Higher Education Press-Springer, 2021. (DBLP-SCIE-SCOPUS)
- (4) Dhruvi Sharma, Devesh C. Jinwala. "Multi-writer multi-reader conjunctive keyword searchable encryption." In: *International Journal of Information and Computer Security*. 15(2/3): pp. 141-162, Inderscience Publishers. 2021. (DBLP-SCOPUS)
- (5) Unnati S. Shah, Sankita Patel, Devesh C. Jinwala. "Detecting Intra-Conflicts in Non-Functional Requirements." In: *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 29(3): pp. 435-461, World Scientific, 2021. (DBLP-SCIE-SCOPUS)
- (6) Himanshu B. Patel, Devesh C. Jinwala: 6MID:Mircochain based Intrusion Detection for 6LoWPAN based IoT networks, *Procedia Computer Science*, Volume 184, Pages 929-934, ISSN 1877-0509 <https://doi.org/10.1016/j.procs.2021.04.023> 2021. (DBLP-SCOPUS)
- (7) Mukti Padhya, Devesh C. Jinwala: R-OO-KASE: Revocable Online/Offline Key Aggregate Searchable Encryption. In: *Data Science and Engineering*, Volume 5, Issue 4, pp. 391-418, 2020. (DBLP-SCIE-SCOPUS)
- (8) Mukti Padhya, Devesh C. Jinwala: P^2 KASE A^2 - Privacy-preserving Key Aggregate Searchable Encryption supporting Authentication and Access Control on Multi- delegation. In: *IET Information Security*, Volume 14, Issue 6, pp.704-723, 2020 (SCI- DBLP)
- (9) Dhruvi Sharma, Devesh C. Jinwala. "Multi-writer Multi-reader Boolean Keyword Searchable Encryption." In: *Arabian Journal for Science and Engineering*, Volume 45, Issue 12, pp. 10709-10729, Springer Berlin Heidelberg 2020 (SCIE-SCOPUS)
- (10) Dhruvi Sharma, Devesh C. Jinwala. "Aggregate Searchable Encryption With Result Privacy." IN: *International Journal of Information Security and Privacy (IJISP)*, Volume 14, Issue 2, pp. 62-82, IGI Global Publications, 2020. (DBLP-SCOPUS-SCIE)
- (11) Mukti Padhya, Devesh C. Jinwala. "CRSQ-KASE: Key Aggregate Searchable Encryption Supporting Conjunctive Range and Sort Query on Multi-owner Encrypted Data. In: *Arabian Journal for Science and Engineering*, Article in Press. 2020 (SCIE- SCOPUS)
- (12) Unnati S Shah, Sankita J Patel, Devesh C Jinwala, "Constructing a knowledge-based quality attributes relationship matrix to identify conflicts in non-functional requirements." In: *Journal of Computational and Theoretical Nanoscience*, Volume 17, Issue 1, pp. 122-129. 2020. (SCOPUS)
- (13) Shivanshu Mehta, Devesh C Jinwala, Upena Dalal, Dhiren Patel, "Decentralized context aware access control model for internet of things" In: *Journal of Computational and Theoretical Nanoscience*, Volume 17, Issue 1, pp. 162-171, 2020.(SCOPUS)
- (14) Mukti Padhya, Devesh C. Jinwala. "MULKASE: a novel approach for key-aggregate searchable encryption for multi-owner data." In: *Frontiers of Information Technology and Electronic Engineering*, Volume 20, Issue 12, pp. 1717-1748. 2019. (DBLP-SCI)
- (15) Kaushal A Shah, Devesh C Jinwala. "Novel Approach of Key Predistribution for Grid Based Sensor Networks." In: *Wireless Personal Communications*, Volume 108, Issue 2, pp. 939-955, 2019. (DBLP-SCI)
- (16) Shivangi Surati, Devesh C Jinwala, Sanjay Garg. "BMMI-tree: A Peer-to-Peer m-ary tree using 1-m node splitting for an efficient multidimensional complex query search. In: *Journal of Parallel and Distributed Computing*, Volume 125, pp. 1-17, 2019. (DBLP-SCI).
- (17) Shivangi Surati, Devesh C Jinwala, Sanjay Garg. "Improving multidimensional point query search using multi-way peer-to-peer tree network" In: *International Journal of Information and Communication Technology*, Volume 14, Issue 2, pp. 125-138. 2019. (DBLP-SCOPUS)

- (18) Kaushal A. Shah, Devesh C. Jinwala. "Privacy Preserving, Verifiable and Resilient Data Aggregation in Grid-Based Networks." In: *The Computer Journal*. Vol 61, Issue 4, pp. 614–628. 2018 (DBLP-SCI)
- (19) Hasmukh Patel, Devesh C. Jinwala. "LPM: A lightweight authenticated packet marking approach for IP traceback." In: *Computer Networks*. Volume 140. Pp. 41–50. 2018. (DBLP-SCI)
- (20) Hasmukh Patel, Devesh C Jinwala. "STF-DM: A Sparsely Tagged Fragmentation with Dynamic Marking an IP Traceback Approach", *International Arab Journal of Information Technology*, Volume 15, No. 4, pp. 721–728. 2018. (DBLP-SCI).
- (21) Dhruvi Sharma, Devesh C Jinwala. "Multiuser Searchable Encryption with Token Freshness Verification," In: *Security and Communication Networks*, vol. 2017, Article ID 6435138, 16 pages, 2017. doi:10.1155/2017/6435138. (DBLP-SCI-SCOPUS)
- (22) Nirali R. Nanavati, Prakash Lalwani, Devesh C. Jinwala. "Game-theoretic privacy preserving constructions for rational and malicious secret sharing models for collaborative frequent itemset mining.: In: *International Journal of Knowledge Engineering and Data Mining*. Volume 4 Issue 3/4. Pp. 320–346. 2017. (DBLP-SCOPUS).
- (23) Kaushal Shah, Devesh C Jinwala, "Novel Approach for Pre-distributing Keys in WSNs for Linear Infrastructure", In: *Wireless Personal Communications*, Vol 95, Issue 3, pp. 3905–392187, Springer-Verlag, 2017. (DBLP-SCI).
- (24) Shivangi Surti, Devesh C Jinwala, Sanjay Garg. "A survey of simulators for P2P overlay networks with a case study of the P2P tree overlay using an event-driven simulator" In: *International Journal of Engineering Science and Technology*, Volume 20, Issue 2, Pages 705–720, April 2017, Elsevier (EBSCOhost, SCOPUS)
- (25) Jayam Modi, Manav Prajapati, Abhinav Sharma, Ravi Ojha, Devesh Jinwala. "A Secure Communication Model for Expressive Access Control Using CP-ABE." In: *International Journal of Network Security* Volume 19, Issue 2, 193–204, 2017. (DBLP)
- (26) Chandan Trivedi, Shilpa Prakash, Devesh Jinwala and B. Kartikeyan. "Iterative deconvolution approach for high resolution satellite imagery" In: *Journal of Geomatics*, Volume. 10, No. 2, pp. 115–120, October 2016. (SCOPUS)
- (27) Nishant Doshi, Devesh C Jinwala; "A novel approach for privacy homomorphism using attribute-based encryption" In: *Journal of Security and Communication Networks*, Vol 9, Issue 17 , pp. 4451–4467, John Wiley and Sons, Online ISSN: 1939-0122, 2016 (DBLP-SCI).
- (28) Keyur Parmar, Devesh C. Jinwala; "Concealed data aggregation in wireless sensor networks: A comprehensive survey". In: *Computer Networks*; Volume 103, pp. 207–227, Elsevier, 2016. (DBLP-SCI)
- (29) Keyur Parmar, Devesh C Jinwala, "Malleability Resilient Concealed Data Aggregation", In: *Wireless Personal Communications*, Vol 87, Issue 3, pp. 971–993, Springer-Verlag, 2016. (DBLP-SCI).
- (30) Nirali Nanavati, Devesh C Jinwala, "A Novel Privacy Preserving Scheme for Collaborative Frequent Itemset Mining across Vertically Partitioned Data", In: *Journal of Security and Communication Networks*, Vol 8, Issue 18, pp 4407–4420, John Wiley and Sons, 2016. Online ISSN: 1939-0122, (DBLP-SCI-SCOPUS).
- (31) Pawan Bhaldare, Devesh C Jinwala, "Novel Approaches for Privacy Preserving Data Mining in K-Anonymity Model", *Journal of Information Science and Engineering*, Vol 32, Issue 1, pp. 63–78, Institute of Information Science, Academia Sinica, Taipei, Taiwan, 2016 (DBLP-SCI-SCOPUS)
- (32) Pawan R. Bhaldare, Devesh C. Jinwala, "A Clustering Approach Using Fractional Calculus-Bacterial Foraging Optimization Algorithm for k-Anonymization in Privacy Preserving Data Mining", In: *International Journal of Information Security and Privacy*, Volume 10, Issue 1, pp. 45–65, IGI Global IGI Global Publishers, USA, 2016 (DBLP)
- (33) Unnati S. Shah, Devesh C. Jinwala, *Resolving Ambiguities in Natural Language Software Requirements: A Comprehensive Survey*. ACM SIGSOFT Software Engineering Notes Volume 40, Issue, 5, Pages: 1–7, 2015 (DBLP).
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Conferences/Workshops/Seminars/Short Courses etc. organized

1. In all, as a Coordinator OR Joint–Coordinator as well as Lead Faculty, organized 19 different short term training programs, faculty development programs or short term training programs, sponsored under different sources viz. ISEAP-II, ISEAP-I, TEQIP-I, TEQIP-II, AICTE, MeITY, Gol or GUJCOST, GoG.

Invited Talks/ Expert Lectures Delivered

1. In all have delivered 132 talks/expert lectures/plenary talk/inaugural talk etc. on different topics under the areas of research interest. Some of the recent talks have been on the following topics:
 - "Emerging Technologies, Trends, Usecases and Issues in deployment"
 - "A Peep into Adversarial Machine Learning: Industry Perspectives"
 - "A Peep into Machine Learning in Malware Detection"
 - "Blockchain Issues and Design Paradigms for Deployment in the IoT"
 - "Network Reconnaissance, Packet Filtering in Linux and Working with Linux iptables"
 - "Key Secret Sharing in Blockchain - I and II"
 - "Teaching, Research and Being a Good Faculty Member"
 - "Blockchain of Things: Applications, Security and Privacy Issues"
 - "Searchable Encryption in Cloud: Applications, Security & Privacy Issues"
 - "Denial of Service Attacks on the RPL Routing Protocol in 6LowPAN in the IoT Systems"
 - "Security Issues in the Cyber Physical Systems and the Internet of Things"
 - "Privacy Homomorphism and Applications in the Internet of Things"
 - "A peep into Ethical Research Issues into Blockchain Technology and Cryptocurrencies"
 - "Mathematical Foundations for Information Security & Cryptography"
 - "Research and Writing Papers: Writing Style and Mistakes to Avoid - I"
 - "P, NP Theory I, II and III"
 - "Design of a hop-by-hop link layer security protocol for the Wireless Sensor Networks & the Internet of Things"
 - "BTG-RKASE: Privacy Preserving Revocable Key Aggregate Searchable Encryption Supporting Fine-Grained Multi-Delegation with Break-The-Glass Access Control"
 - "Resilient Secure Data Aggregation in WSNs"

Courses currently teaching and taught in past

(A.)

- Design and Analysis of Algorithms
- Secure Software Engineering
- Security in the Resource Constrained Environments and the IoT
- Software Engineering Methodologies
- Machine Learning for Security (offered but not taught)
- Adversarial Machine Learning (offered but not taught)

(B.)

- Information and Network Security
- Public Key Infrastructure and Trust Management
- Operating Systems
- UNIX Programming
- Algorithms Analysis and Design

- Software Engineering
- Distributed Programming Environment
- Data Base Management Systems
- Computer Networks
- Principles of Programming Languages
- Advanced Microprocessors
- Data Structures and Programming Methodology
- Computer Based Information Processing
- Information Management Systems

Previous Industry Experience

- ICIM Ltd. served at various places viz. Mumbai, Pune, Ahmedabad, Anand, Vadodara (Oct 1987 – Dec 1990)
- Maegaware Computers Ltd., Vapi (Jan 1987 – Sept 1987)