

Dr.P.Vijayakumar

Curriculum Vitae

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Profiles

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Citation count: 2860

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Research interests

- Computer Networks
- Cloud Security
- Security in Multicast Communication
- Security in VANETs
- Security in e-Health environments
- Data Structures

Education

2010-2013 **PhD in Computer Science and Engineering**, College of Engineering Guindy (CEG), Anna University, Chennai, India.

2003-2005 **ME in Computer Science and Engineering**, Karunya Institute of Technology, Anna University, Chennai, India.

1998-2002 **BE in Computer Science and Engineering**, R.V.S College of Engineering and Technology, Madurai Kamaraj University, Madurai, India.

Academic Experience: 17 Years 2 Months

20-08-2008 to present **Assistant Professor**, University College of Engineering Tindivanam, Tindivanam, India.

01-08-2007 to 19-08-2008 **Senior Lecturer**, All Nations University, Koforidua, Ghana.

01-02-2007 to 31-07-2007 **Lecturer**, All Nations University, Koforidua, Ghana.

24-03-2005 to 23-01-2007 **Lecturer**, Sethu Institute of Technology, Virudhunagar, India.

Industry Experience: 1 Year

01-07-2002 to 30-06-2003 **Database Maintenance**, *Inlott Technology Pvt. Ltd.*, Chennai, India.

Key Administrative Experience

16-02-2015 to 03-08-2018 **Dean (i/c)**, *University College of Engineering Tindivanam*, Tindivanam, India.
3 years 6 months

25-03-2015 to 02-04-2018 **Zonal Coordinator**, *Anna University-Zone V*, Chennai, India.
3 years 1 months

16-02-2015 to 03-08-2018 **Warden**, *Students Hostel-University College of Engineering Tindivanam*, Tindivanam, India.
3 years 6 months

15-02-2015 to 03-08-2018 **Chairman-Anti-ragging committee**, *University College of Engineering Tindivanam*, Tindivanam, India.
3 years 6 months

2016 to 2018 **Board of Studies Member**, *Department of Information and Communication Engineering*, Anna University, Chennai.
India

2016 to 2018 **Executive Committee Member**, *Anna University Sports Board*, Chennai, India.

2013 to 2018 **AISHE Nodal Officer**, *Collecting the statistics about students and staffs and entering the details in the website <http://aishe.gov.in/aishe/home>* .

01-05-2014 to 15-12-2014 **Head of the Department**, *Dept. of CSE, University College of Engineering Tindivanam*, Tindivanam, India.
7 months

2012 to 2013 **Camp Officer**, *Conducting Valuation for Anna University Theory Exam Paper Correction*.

2008 to 2014 **Consumer Protection Coordinator**, *Educating Public and Students to know about Consumer Rights*.

2011 to 2015 **EDUSAT Co-ordinator**, *Virtual Teaching environment to students and staffs*.

01-02-2007 to 30-05-2008 **Head of the Department**, *Dept. of CSE, All Nations University*, Koforidua, Ghana.

2007 to 2008 **Deputy Controller of Examinations**, *All Nations University*, Koforidua, Ghana.

Graduated PhD Students

- **M.Azees** (Reg no. 101449971) Completed as Full Time Ph.D Scholar in 2017. Currently he is with GMR Institute of Technology, Andhra Pradesh, India. Title of the Ph.D work is *Efficient privacy preserving authentication and key management techniques for providing secure communication in Vehicular Adhoc networks*.
- **R.Sathiyaseelan** (Reg no. 2011114071) Completed as Part Time Ph.D Scholar in 2017. Currently he is with Arunai Engineering College, Tamil Nadu, India. Title of the Ph.D work is *Secure and energy efficient protocols for improving the performance of sensor*.
- **R.Naresh** (Reg no. 1413499101) Completed as Part Time Ph.D Scholar in 2017. Currently he is with SRM Institute of Science and Technology, Tamil Nadu, India. Title of the Ph.D work is

Trust and efficient group key management techniques for secure group communication in distributed networks.

- **P.Pandiaraja** (Reg no. 2011174081) Completed as Part Time Ph.D Scholar in 2018. Currently he is with M.Kumarasamy College of Engineering, Tamil Nadu, India. Title of the Ph.D work is *Efficient data access and task scheduling approaches for secure communication in cloud.*

Awards and honour

- Received **Best Paper Award** for the research paper entitled *An Effective Key Distribution Protocol for Secure Multicast Communication*, in the Second International Conference on Advanced Computing (ICoAC) held at MIT, Anna University Chennai, 2010.
- Received **Best Consumer Protection Forum Award** from the District Collector, Villupuram, in the year 2014.
- Received **Best Education and Research Award** from Karunya Deemed to be University, Coimbatore, in the year 2016.
- Received **Best Administrator Award** from District Collector, Villupuram, in the year 2017.
- Received **Best NSS Unit Award** for University College of Engineering Tindivanam from Anna University Chennai, in the year 2017.
- Received **appreciation certificate** from the District Collector, Villupuram for co-ordinating the promotion of Handicraft items of Tamilnadu Women Development Society in Colleges.

Countries Visited

- Delivered an invited talk at Xidian University, China (From 19.05.2018 To 26.05.2018)
- Delivered a Research talk at Columbia University, New York, USA (From 01.11.2017 To 10.11.2017)
- Delivered a Research talk at New York Institute of Technology (NYIT), New York, USA (From 02.11.2015 To 07.11.2015)
- Delivered a Research talk at JEJU, South Korea (From 12.12.2011 To 13.12.2011)
- Worked as a lecturer in All Nations University, Ghana, West Africa (From 26.01.2017 To 19.08.2008)

Computer skills

Languages MATLAB, C, C++, Oracle PL/SQL, SQL

Platforms Linux, Windows

Databases Oracle, DB2

Tools Word, Excel, Latex

Languages

Tamil Fluent

My native language.

English Fluent

Speaking, reading, and writing.

Professional membership

- **IEEE**, Senior member.
- Member of **IEEE** Consumer Technology
- Member of **IEEE** Industrial Electronics Society (IES)
- Lifetime Membership in CSI (Computer society of India)
- Annual Membership in the India Science Congress Association

List of Books Published

- L.Jegatha Deborah, **P. Vijayakumar**, Brij B.Gupta, Danilo Pelusi, *Solutions to Secure Data Management Issues for Online Learning Applications*, Taylor and Francis, CRC Press, 2022, Yet to publish.
- S.Bose, **P. Vijayakumar**, *Cryptography and Network Security*, ISBN: 978-93-325-4364-5, Pearson Education, India, 2016.
- **P. Vijayakumar**, *Data Structures*, ISBN: 9988-6622-35, All Nations University Publication, Koforidua, Ghana, 2007.
- R.Sukumar,Mr.Y.Arockia Jesuraj, **P. Vijayakumar**,*Computer Networks*, Dharsan Publication, Chennai, 2007.
- A.S.Raja, **P. Vijayakumar**, *System Software*, ISBN: 81-89638-40-8, Anuradha Publication, Chennai, 2006.

List of Funded Project

1. **Title:** Computational And Storage Efficient Key Management for Secure Multicast Communication
Role: Principal Investigator
Amount: Rs.50000
Sponsored Agency: Centre For Technology Development and Transfer, Anna University, Chennai
Status: Completed
2. **Title:** Computationally Efficient Privacy Preserving Anonymous Authentication Scheme for Vehicular Adhoc Networks
Role: Principal Investigator
Amount: Rs.80000
Sponsored Agency: University Grants Commission, India
Status: Approved but fund not released

International Journal Publications- (SCI/SCIE Indexed)

1. **Pandi Vijayakumar**, M. Azees, A. Kannan, L. Jegatha Deborah, “Dual Authentication and Key Management Techniques for Secure Data Transmission in Vehicular Ad-hoc Networks”, *IEEE Transactions on Intelligent Transportation Systems*, Vol.17, No.4, pp. 1015 - 1028, 2015.
(Impact Factor: 6.492).
2. M. Azees, **Pandi Vijayakumar**, L. Jegatha Deborah, “EAAP: Efficient Anonymous Authentication with Conditional Privacy Preserving Scheme for Vehicular Ad-hoc Networks”, *IEEE Transactions on Intelligent Transportation Systems*, Vol.18, No.9, pp. 2467 – 2476, 2017.
(Impact Factor: 6.492).
3. **Pandi Vijayakumar**, Mohammad Obaidat, Maria Azees, Sk Hafizul Islam, Neeraj Kumar, “Efficient and Secure Anonymous Authentication with Location Privacy for IoT-based WBANs”, *IEEE Transactions on Industrial Informatics*, Vol.16, No.4, pp.2603-2611, April 2020.
(Impact Factor: 10.215).
4. **Pandi Vijayakumar**, Maria Azees, Sergei A. Kozlov, Joel J. P. C. Rodrigues, “An Anonymous Batch Authentication and Key Exchange Protocols for 6G Enabled VANETs”, *IEEE Transactions on Intelligent Transportation Systems*, Vol.23, No.2, pp.1630–1638, 2022.
(Impact Factor: 6.492).

5. Xiong Li, Jiawei Tan, Anfeng Liu, **Pandi Vijayakumar**, Neeraj Kumar, Mamoun Alazab, “A Novel UAV-Enabled Data Collection Scheme for Intelligent Transportation System Through UAV Speed Control”, *IEEE Transactions on Intelligent Transportation Systems*, Vol.22, No.4, pp.2100-2110, April 2021.
(Impact Factor: 6.492).
6. Chen Wang, Jian Shen, **Pandi Vijayakumar**, Brij B Gupta, “Attribute-Based Secure Data Aggregation for Isolated IoT-Enabled Maritime Transportation Systems”, *IEEE Transactions on Intelligent Transportation Systems*, Accepted for Publication, 2022.
(Impact Factor: 6.492).
7. Aniello Castiglione, **Pandi Vijayakumar**, Michele Nappi, Saima Sadiq and Muhammad Umer, “COVID-19: Automatic Detection of the Novel Coronavirus Disease from CT Images Using an Optimized Convolutional Neural Network”, *IEEE Transactions on Industrial Informatics*, Vol.17, No.9, pp.6480-6488, September 2021.
(Impact Factor: 10.215).
8. SK Hafizul Islam, **Pandi Vijayakumar**, Md Zakirul Alam Bhuiyan, Ruhul Amin, M. Rajeev Varun, Balamurugan Balusamy, “A Provably Secure Three-factor Session Initiation Protocol for Multimedia Big Data Communications”, *IEEE Internet of Things Journal*, Vol. 5, No.5, pp. 3408 - 3418, 2018.
(Impact Factor: 9.471).
9. Bighnaraj Naik, Mohammad Obaidat, Janmenjoy Nayak, Danilo Pelusi, **Pandi Vijayakumar**, Sk Hafizul Islam, “Intelligent Secure Ecosystem based on Meta-heuristic and Functional Link Neural Network for Edge-of-Things”, *IEEE Transactions on Industrial Informatics*, Vol.16, No.3, pp.1947-1956, March 2020.
(Impact Factor: 10.215).
10. Junqing Lu, Jian Shen, **P. Vijayakumar**, and Brij B. Gupta, “Blockchain-Based Secure Data Storage Protocol for Sensors in the Industrial Internet of Things”, *IEEE Transactions on Industrial Informatics*, Accepted for publication, 2021.
(Impact Factor: 10.215).
11. Xiong Li, Jiabei He, **P. Vijayakumar**, Xiaosong Zhang, and Victor Chang, “A Verifiable Privacy-preserving Machine Learning Prediction Scheme for Edge-enhanced HCPSs”, *IEEE Transactions on Industrial Informatics*, Accepted for publication, 2021.
(Impact Factor: 10.215).
12. Yaru Liu, Jia Yu, Jianxi Fan, **Pandi Vijayakumar**, Victor Chang, “Achieving Privacy-Preserving DSSE for Intelligent IoT Healthcare System”, *IEEE Transactions on Industrial Informatics*, Accepted for publication, 2021.
(Impact Factor: 10.215).
13. Arijit Karati, SK Hafizul Islam, G.P. Biswas, Md Zakirul Alam Bhuiyan, **Pandi Vijayakumar**, Marimuthu Karuppiah, “Provably Secure Identity-based Signcryption Scheme for Crowdsourced Industrial Internet of Things Environments”, *IEEE Internet of Things Journal*, Vol.5, No.4, pp. 2904 – 2914, 2018.
(Impact Factor: 9.471).

14. Xinghua Li, Yunwei Wang, **Pandi Vijayakumar**, Debiao He, Neeraj Kumar, Jianfeng Ma, “Blockchain Based Mutual-Healing Group Key Distribution Scheme in Unmanned Aerial Vehicles Ad-Hoc Network”, *IEEE Transactions on Vehicular Technology*, Vol.68, No.11, pp.11309-11322, November 2019.
(Impact Factor: 5.978).
15. Shen Jian, Dengzhi Liu, Xiaofeng Chen, Jin Li, Neeraj Kumar, **Pandi Vijayakumar**, “Secure Real-time Traffic Data Aggregation with Batch Verification for Vehicular Cloud in VANETs”, *IEEE Transactions on Vehicular Technology*, Vol.69, No.1, pp.807-817, January 2020.
(Impact Factor: 5.978)
16. Xinghua Li, Jiao Liu, Mohammad S. Obaidat, **Pandi Vijayakumar**, Qi Jiang and Ruhul Amin, “An Unlinkable Authenticated Key Agreement With Collusion Resistant for VANETs”, *IEEE Transactions on Vehicular Technology*, Vol.70, No.8, pp.7992-8006, August 2021.
(Impact Factor: 5.978)
17. Chao Lin, Debiao He, Neeraj Kumar, Xinyi Huang, **Pandi Vijayakumar**, and Kim-Kwang Raymond Choo, “HomeChain: A Blockchain-Based Secure Mutual Authentication System for Smart Homes”, *IEEE Internet of Things Journal*, Vol.7, No.2, pp.818-829, February 2020.
(Impact Factor: 9.471).
18. Cong Peng, Jianhua Chen, Mohammad S. Obaidat, **Pandi Vijayakumar**, Debiao He, “Efficient and Provably Secure Multi-receiver Signcryption Scheme for Multicast Communication in Edge Computing”, *IEEE Internet of Things Journal*, Vol.7, No.7, pp.6056-6068, July 2020.
(Impact Factor: 9.471).
19. Cong Peng, Min Luo, **Pandi Vijayakumar**, Debiao He, Omar Said, Amr Tolba, “Multi-Functional and Multi-Dimensional Secure Data Aggregation Schemes in WSNs”, *IEEE Internet of Things Journal*, Vol.9, No.4, pp.2657-2668, February 2022.
(Impact Factor: 9.471)
20. F. Wei, **Pandi Vijayakumar**, N. Kumar, R. Zhang and Q. Cheng, “Privacy-Preserving Implicit Authentication Protocol Using Cosine Similarity for Internet of Things,” *IEEE Internet of Things Journal*, Vol.8, No.7, pp.5599-5606, April 2021.
(Impact Factor: 9.471).
21. R. Vinoth, L. J. Deborah, **Pandi Vijayakumar** and N. Kumar, “Secure Multi-factor Authenticated Key Agreement Scheme for Industrial IoT,” *IEEE Internet of Things Journal*, Vol.8, No.5, pp.3801-3811, March 2021.
(Impact Factor: 9.471).
22. Chen Wang, Rui Huang, Jian Shen, Jianwei Liu, **Pandi Vijayakumar**, Neeraj Kumar, “A Novel Lightweight Authentication Protocol for Emergency Vehicle Avoidance in VANETs”, *IEEE Internet of Things Journal*, Vol.8, No.18, pp.14248-14257, September 2021.
(Impact Factor: 9.471).
23. Yanrong Lu, Ding Wang, Mohammad S. Obaidat, **Pandi Vijayakumar**, “Edge-assisted Intelligent Device Authentication in Cyber-Physical Systems”, *IEEE Internet of Things Journal*, Accepted for

Publication, 2022.

(Impact Factor: **9.471**).

24. Jian Shen, Huijie Yang, **P. Vijayakumar**, and Neeraj Kumar, “A Privacy-Preserving and Untraceable Group Data Sharing Scheme in Cloud Computing”, *IEEE Transactions on Dependable and Secure Computing*, Accepted for publication, 2021.
(Impact Factor: **7.329**).
25. Aniello Castiglione, Muhammad Umer, Saima Sadiq, Mohammad Obaidat, **Pandi Vijayakumar**, “The Role of Internet of Things to Control the Outbreak of COVID-19 Pandemic”, *IEEE Internet of Things Journal*, Vol.8, No.21, pp.16072-16082, November 2021.
(Impact Factor: **9.471**).
26. B. Bera, A. K. Das, M. Obaidat, **Pandi Vijayakumar**, K. -F. Hsiao and Y. Park, “AI-Enabled Blockchain-Based Access Control for Malicious Attacks Detection and Mitigation in IoE”, *IEEE Consumer Electronics Magazine*, Vol.10, No.5, pp. 82-92, September 2021.
(Impact Factor: **3.789**).
27. Yalian Qian, Jian Shen, **Pandi Vijayakumar**, Pradip Kumar Sharma, “Profile Matching for IoMT: A Verifiable Private Set Intersection Scheme”, *IEEE Journal of Biomedical and Health Informatics*, Vol.25, No.10, pp. 3794-3803, 2021.
(Impact Factor: **5.772**).
28. Ruijin Wang, Jinshan Lai, Zhiyang Zhang, Xiong Li, **Pandi Vijayakumar**, Marimuthu Karuppiah, “Privacy-Preserving Federated Learning for Internet of Medical Things under Edge Computing”, *IEEE Journal of Biomedical and Health Informatics*, Accepted for Publication, 2022.
(Impact Factor: **5.772**).
29. Zhiyan Xu, Debiao He, **Pandi Vijayakumar**, Brij Gupta, Jian Shen, “Certificateless Public Auditing Scheme with Data Privacy and Dynamics in Group User Model of Cloud-Assisted Medical WSNs”, *IEEE Journal of Biomedical and Health Informatics*, Accepted for Publication, 2022.
(Impact Factor: **5.772**).
30. Md Arafatur Rahman, A. Taufiq Asyhari, Mohammad S. Obaidat, Ibnu Febry Kurniawan, Marufa Yeasmin Mukta, **P. Vijayakumar**, “IoT-Enabled Light Intensity-Controlled Seamless Highway Lighting System”, *IEEE Systems Journal*, Vol.15, No.1, pp. 46-55, March 2021.
(Impact Factor: **3.931**).
31. Fan Wu, Xiong Li, Lili Xu, **Pandi Vijayakumar**, Neeraj Kumar, “A novel three-factor authentication protocol for wireless sensor networks with IoT notion”, *IEEE Systems Journal*, Vol.15, No.1, pp.1120-1129, March 2021.
(Impact Factor: **3.931**).
32. Xiong Li, Tian Liu, Mohammad S. Obaidat, Fan Wu , **Pandi Vijayakumar**, Neeraj Kumar, “A Lightweight Privacy-Preserving Authentication Protocol for VANETs”, *IEEE Systems Journal*, , Vol.14, No.3, pp.3547-3557, September 2020.
(Impact Factor: **3.931**).
33. Daya Sagar Gupta, SK Hafizul Islam, Mohammad S. Obaidat, **Pandi Vijayakumar**, Neeraj Kumar

and YoHan Park, “A Provably Secure and Lightweight Identity-based Two-party Authenticated Key Agreement Protocol for IIoT Environments”, *IEEE Systems Journal*, Vol.15, No.2, pp.1732-1741, June 2021.

(Impact Factor: **3.931**).

34. Yazhi Liu, Sihan Wang, Mohammad S Obaidat, Xiong Li, **Pandi Vijayakumar**, “Service Chain Caching and Workload Scheduling in Mobile Edge Computing”, *IEEE Systems Journal*, Accepted for Publication, 2022.

(Impact Factor: **3.931**).

35. 31. Xinghua Li, Mengfan Xu, **Pandi Vijayakumar**, Neeraj Kumar, Ximeng Liu, “Detection of Low-frequency and Multi-stage Attacks in Industrial Internet of Things”, *IEEE Transactions on Vehicular Technology*, Vol.69, No.8, pp.8820-8831, August 2020.

(Impact Factor: **5.978**).

36. Fushan Wei, Sherali Zeadally, **Pandi Vijayakumar**, Neeraj Kumar and Debiao He, “An Intelligent Terminal Based Privacy-Preserving Multi-Modal Implicit Authentication Protocol for Internet of Connected Vehicles”, *IEEE Transactions on Intelligent Transportation Systems*, Vol.22, No.7, pp.3939-3951, July 2021.

(Impact Factor: **6.492**).

37. Yudi Zhang, Debiao He, Mohammad S. Obaidat, **Pandi Vijayakumar**, Kuei-Fang Hsiao, “Efficient Identity-Based Distributed Decryption Scheme for Electronic Personal Health Record Sharing System”, *IEEE Journal on Selected Areas in Communications*, Vol.39, No.2, pp.384-395, February 2021.

(Impact Factor: **9.144**).

38. D.Hemanand, D.S.Jayalakshmi, Uttam Ghosh, A.Balasundaram, **Pandi Vijayakumar**, Pradip Kumar Sharma, “Enabling Sustainable Energy for Smart Environment Using 5G Wireless Communication and Internet of Things”, *IEEE Wireless Communications*, Vol.28, No.6, pp.56-61, December 2021.

(Impact Factor: **11.979**).

39. Prabhakar Krishnan, Kurunandan Jain, Rajkumar Buyya, **Pandi Vijayakumar**, Anand Nayar, Muhammad Bilal, Houbing Song, “MUD-based Behavioral Profiling Security Framework for Software-Defined IoT Networks”, *IEEE Internet of Things Journal*, Accepted for publication.

(Impact Factor: **9.471**).

40. Jun Huang, Debiao He, Mohammad S. Obaidat, **Pandi Vijayakumar**, Min Luo, Kim-Kwang Raymond Choo, “The Application of the Blockchain Technology in Voting Systems: A Review”, *ACM Computing Surveys*, Vol.54, No.3, pp.1-28, June 2021.

(Impact Factor: **7.99**).

41. Cong Peng, Jianhua Chen, **Pandi Vijayakumar**, Neeraj Kumar, Debiao He, “Efficient Distributed Decryption Scheme for IoT Gateway-based Applications”, *ACM Transactions on Internet Technology*, Vol. 21, No.1, pp.1-23, January 2021.

(Impact Factor: **1.598**).

42. **P. Vijayakumar**, Victor Chang, L. Jegatha Deborah, Balamurugan Balusamy, P.G.Shynu, “Com-

putationally Efficient Privacy Preserving Anonymous Mutual and Batch Authentication Schemes for Vehicular Ad Hoc Networks”, *Future Generation Computer Systems*, Elsevier, Vol.78, pp.943-955, January 2018.

(Impact Factor: 7.187).

43. R. Elakkiya, **Pandi Vijayakumar**, Neeraj Kumar, “An Optimized Generative Adversarial Network Based Continuous Sign Language Classification”, *Expert Systems with Applications*, Elsevier, Vol.182, No.115276, November 2021.

(Impact Factor: 6.954).

44. **P. Vijayakumar**, S.Milton Ganesh, L.Jegatha Deborah, and Bharat S.Rawal, “A new SmartSMS protocol for secure SMS communication in m-health environment”, *Computers & Electrical Engineering*, Elsevier, Vol. 65, pp. 265-281, January 2018.

(Impact Factor: 3.818).

45. **P. Vijayakumar**, P.Pandiaraja, Marimuthu Karuppiah, L.Jegatha Deborah “An efficient secure communication for healthcare system using wearable devices”, *Computers & Electrical Engineering*, Elsevier, Vol.63, pp.232-245, October 2017.

(Impact Factor: 3.818).

46. Fushan Wei, **P. Vijayakumar**, Jian Shen, Ruijie Zhang, Li Li, “A Provably Secure Password-Based Anonymous Authentication Scheme for Wireless Body Area Networks”, *Computers & Electrical Engineering*, Elsevier, Vol.65, PP.322-331, January 2018.

(Impact Factor: 3.818).

47. **P. Vijayakumar**, S. Bose, A. Kannan, “Centralized Key Distribution Protocol using the Greatest Common Divisor Method”, *Computers & Mathematics with Applications*, Elsevier, Vol.65, No.9, pp.1360–1368, May 2013.

(Impact Factor: 3.476).

48. Anxi Wang, Jian Shen, **Pandi Vijayakumar**, Yongxin Zhu, Li Tian, “Secure big data communication for energy efficient intra-cluster in WSNs”, *Information Sciences*, Elsevier, Volume 505, Pages 586-599, December 2019.

(Impact Factor: 6.795).

49. SK Hafizul Islam, Mohammad S. Obaidat, **Pandi Vijayakumar**, Enas Abdulhay, Fagen Li, M Krishna Chaitanya Reddy, “A Robust and Efficient Password-based Conditional Privacy Preserving Authentication and Group-Key Agreement Protocol for VANETs”, *Future Generation Computer Systems*, Elsevier, Vol.84, PP. 216-227, July 2018.

(Impact Factor: 7.187).

50. Suyel Namasudra, Pinki Roy, **Pandi Vijayakumar**, Sivaraman Audithan, Balamurugan Balusamy, “Time efficient secure DNA based access control model for cloud computing environment”, *Future Generation Computer Systems*, Elsevier, Vol.73, pp.90-105, August 2017.

(Impact Factor: 7.187).

51. Rongxin Qi, Sai Ji, Jian Shen, **Pandi Vijayakumar**, Neeraj Kumar, “Security Preservation in Industrial Medical CPS Using Chebyshev Map: An AI Approach”, *Future Generation Computer Systems*, Elsevier, Vol.122, pp.52-62, September 2021.

(Impact Factor: 7.187).

52. Chang Wang, Yongxin Zhu, Weiwei Shi, Victor Chang, **P. Vijayakumar**, Bin Liu, Yishu Mao, Jiabao Wang, Yiping Fan, “A Dependable Time Series Analytic Framework For Cyber-Physical Systems Of Iot-Based Smart Grid”, *ACM Transactions on Cyber-Physical Systems*, Vol.3, No.1, pp.1-18, January 2019.
(Impact Factor: 2.6).
53. Youngju Cho, Wei Kong, Jian Shen, **Pandi Vijayakumar**, Victor Chang, “A Practical Group Blind Signature Scheme for Privacy Protection in Smart Grid”, *Journal of Parallel and Distributed Computing*, Elsevier, Vol.136, pp.29-39, February 2020.
(Impact Factor: 3.734).
54. Prosanta Gope, SK Hafizul Islam, Mohammad S. Obaidat, Ruhul Amin, **Pandi Vijayakumar**, “Anonymous and Expeditious Mobile User Authentication Scheme for GLOMONET Environments”, *International Journal of Communication Systems*, Wiley, Vol. 31, No. 2, pp.1-18, January 2018.
(Impact Factor: 2.047).
55. S.C. Rajkumar, Jegatha Deborah L, **Vijayakumar P**, “Optimized traffic flow prediction based on cluster formation and reinforcement learning”, *International journal of the communication system*, Wiley, Accepted for Publication, Nov.2019.
(Impact Factor: 2.047).
56. **Pandi Vijayakumar**, Maria Azees, Victor Chang, Jegatha Deborah, Balamurugan Balusamy, “Computationally Efficient Privacy Preserving Authentication and Key Distribution Techniques for Vehicular Ad Hoc Networks”, *Cluster Computing*, Springer, Vol. 20, No.3, pp.2439–2450, April 2017.
(Impact Factor: 1.88).
57. Subramani Jegadeesan, Mohammad S. Obaidat, **Pandi Vijayakumar**, Maria Azees and Marimuthu Karuppiah, “Efficient privacy-preserving anonymous authentication scheme for human predictive online education system”, *Cluster Computing*, Springer, Accepted for publication, September 2021.
(Impact Factor: 1.809).
58. Zhiyan Xu, Debiao He, Huaqun Wang, **Pandi Vijayakumar**, Kim-Kwang Raymond Chooe, “A Novel Proxy-oriented Public Auditing Scheme for Cloud-based Medical Cyber Physical Systems”, *Journal of Information Security and Applications*, Elsevier, Volume 51, 102453, April 2020.
(Impact Factor: 3.872).
59. Dheerendra Mishra, Dharminder Dharminder, Preeti Yadavm, Y.Sreenivasa Rao, **Pandi Vijayakumar**, NeerajKumar, “A provably secure dynamic ID-based authenticated key agreement framework for mobile edge computing without a trusted party”, *Journal of Information Security and Applications*, Elsevier, Volume 55, 102648, December 2020.
(Impact Factor: 3.872).
60. Zhiyan Xu, Debiao He, **Pandi Vijayakumar**, Kim-Kwang Raymond Choo, Li Li, “Efficient NTRU Lattice-Based Certificateless Signature Scheme for Medical Cyber-Physical Systems”, *Journal of Medical Systems*, Springer, Vol.44, No.5, April 2020.
(Impact Factor: 4.460).

61. B. B. Gupta, Varun Prajapati, Nadia Nedjah, **P. Vijayakumar**, Ahmed A. Abd El-Latif, Xiaojun Chang, "Machine Learning and Smart Card based Two-factor Authentication Scheme for preserving anonymity in Telecare Medical Information System (TMIS)", *Neural Computing and Applications*, Springer, Accepted for Publications, June 2021.
(Impact Factor: 5.606).
62. **Pandi Vijayakumar**, R. Naresh, L. Jegatha Deborah, SK Hafizul Islam, "An Efficient Group Key Agreement Protocol for Secure P2P Communication", *Security and Communication Networks*, Wiley, Vol.9, No.17, pp.3952–3965, November 2016.
(Impact Factor: 1.791).
63. **Pandi Vijayakumar**, R. Naresh, SK Hafizul Islam, L. Jegatha Deborah "An Effective Key Distribution for Secure Internet Pay-TV using Access Key Hierarchies", *Security and Communication Networks*, Wiley, Vol. 9, No. 18, pp.5085-5097, October 2016.
(Impact Factor: 1.791).
64. Maria Azees, **Pandi Vijayakumar**, L. Jegatha Deborah, Marimuthu Karuppiah, Mary Subaja Christo, "BBAAS: Blockchain-Based Anonymous Authentication Scheme for Providing Secure Communication in VANETs", *Security and Communication Networks*, Hindawi, Vol.2021, Article ID 6679882, February 2021.
(Impact Factor: 1.791).
65. Zeeshan Ali, Bander A Alzahrani, Ahmed Barnawi, Abdullah Al-Barakati, **Pandi Vijayakumar**, Shehzad Ashraf Chaudhry, "TC-PSLAP: Temporal Credential-Based Provably Secure and Lightweight Authentication Protocol for IoT-Enabled Drone Environments", *Security and Communication Networks*, Hindawi, Vol.2021, Article ID 9919460, December 2021.
(Impact Factor: 1.791).
66. M. Azees, **Pandi Vijayakumar**, L. Jegatha Deborah, "Comprehensive survey on security services in vehicular ad-hoc networks", *IET Intelligent Transportation Systems*, Vol.10, No.6, pp.379–388, August 2016.
(Impact Factor: 3.21).
67. **Pandi Vijayakumar**, S. Bose, A. Kannan, "Chinese Remainder Theorem based Centralized Group Key Management for Secure Multicast Communication", *IET Information Security*, Vol.8, No.3, pp.179–187, May 2014.
(Impact Factor: 1.371).
68. Li Zhang, Jianbo Xu, Mohammad S Obaidat, Xiong Li, **Pandi Vijayakumar**, "A PUF-based lightweight authentication and key agreement protocol for smart UAV networks", *IET Communications*, Vol.1, No.1, November 2021.
(Impact Factor: 1.542).
69. **Pandi Vijayakumar**, S. Milton Ganesh, Lazarus Jegatha Deborah, SK Hafizul Islam, Mohammad Mehedi Hassan, Abdulahmeed Alelaiwi, Giancarlo Fortino, "MGPV: A novel and efficient scheme for secure data sharing among mobile users in the public cloud", *Future Generation Computer Systems*, Elsevier, Vol.95, pp.560-569, June 2019.
(Impact Factor: 7.187).

70. Zhiyan Xu, Min Luo, **Pandi Vijayakumar**, Cong Peng, Lianhai Wang, “Efficient certificateless designated verifier proxy signature scheme using UAV network for sustainable smart city”, *Sustainable Cities and Society*, [Elsevier](#), Vol.80, No.103771, May 2022.
(Impact Factor: **7.587**).
71. Ning Lu, Dan Li, Wenbo Shi, **Pandi Vijayakumar**, Francesco Piccialli and Victor Chang, “An Efficient Combined Deep Neural Network based Malware Detection Framework in 5G Environment”, *Computer Networks*, [Elsevier](#), Vol.189, No.107932, April 2021.
(Impact Factor: **4.474**).
72. Palak Bagga, Anil Kumar Sutrala, Ashok Kumar Das, **Pandi Vijayakumar**, “Blockchain Based Batch Authentication Protocol for Internet of Vehicles”, *Journal of System Architecture*, [Elsevier](#), Vol.113, 101877, February 2021.
(Impact Factor: **4.97**).
73. R.Karthika, L. Jegatha Deborah, **P.Vijayakumar**, “Intelligent e-learning system based on fuzzy logic”, *Neural Computing and Applications*, [Springer](#), Vol.32, pp.7661–7670 , February 2020.
(Impact Factor: **5.606**).
74. Maria Azees, **Pandi Vijayakumar**, Marimuthu Karuppiah, Anand Nayyar, “An efficient Anonymous Authentication and Confidentiality Preservation Schemes for Secure Communications in Wireless Body Area Networks”, *Wireless Networks*, [Springer](#), Vol.27, pp.2119-2130, April 2021.
(Impact Factor: **2.602**).
75. Naresh, R, **Vijayakumar Pandi**, Jegatha Deborah, Sivakumar, R, “A Novel Trust Model for Secure Group Communication in Distributed Computing”, *Journal of Organizational and End User Computing*, IGI Global, Vol. 32, No.3, pp.1-14, July-September 2020.
(Impact Factor: **4.77**).
76. Ruhul Amin, SK Hafizul Islam, **Pandi Vijayakumar**, Muhammad Khurram Khan, Victor Chang, “A Robust and Efficient Bilinear Pairing Based Mutual Authentication and Session Key Verification Over Insecure Communication”, *Multimedia Tools and Applications*, [Springer](#), Vol. 77, No.9, pp.11041–11066, July 2017.
(Impact Factor: **2.757**).
77. Dheerendra Mishra, **P. Vijayakumar**, Venkatasamy Sureshkumar, Ruhul Amin, SK Hafizul Islam, Prosanta Gope, “Efficient authentication protocol for secure multimedia communications in IoT-enabled wireless sensor networks”, *Multimedia Tools and Applications*, [Springer](#), Vol.77, No.14, pp.18295–18325, November 2017.
(Impact Factor: **2.757**).
78. R.Elakkiya, **Pandi Vijayakumar**, Marimuthu Karuppiah, “COVID_SCREENNET: COVID-19 Screening in Chest Radiography Images Using Deep Transfer Stacking”, *Information Systems Frontiers*, [Springer](#), Vol.23, No.6, pp.1369–1383, March 2021.
(Impact Factor: **6.191**).
79. Hanlin Zhu, Yongxin Zhu, Hui Wang, Shihui Wang, Ziwei Liu, Balusamy Balamurugan, **Pandi Vijayakumar**, Ming Xia, “multi-scale deep network based multi-step prediction of high dimen-

sional time series from power transmission systems”, *Transactions on Emerging Telecommunications Technologies*, Wiley, Vol.33, No.3, pp.1-14, March 2022.
(Impact Factor: 2.638).

80. Tianyang Liu, Yongxin Zhu, Hui Wang, Balusamy Balamurugan, **Pandi Vijayakumar**, Jingtong Peng, “Transformer anomaly detection based on time-frequency domain software-hardware cooperative analysis”, *Transactions on Emerging Telecommunications Technologies*, Wiley, Vol.33, No.3, pp.1-11, March 2022.
(Impact Factor: 2.638).
81. Dukka KarunKumar Reddy, Himansu Sekhar Behera, Janmenjoy Nayak, **Pandi Vijayakumar**, Bighnaraj Naik, Pradeep Kumar Singh, “Deep Neural Network Based Anomaly Detection in Internet of Things Network Traffic Tracking for The Applications of Future Smart Cities”, *Transactions on Emerging Telecommunications Technologies*, Wiley, Vol.32, No.7, pp.1-26, July 2021.
(Impact Factor: 2.638).
82. Lu-Jun Xu, Rong Hao, Jia Yu, **Pandi Vijayakumar**, “Secure Deduplication for Big Data with Efficient Dynamic Ownership Updates”, *Computers & Electrical Engineering*, Elsevier, Vol.96, No.107531, December 2021.
(Impact Factor: 3.818).
83. Xueya Xia, Sai Ji, **P. Vijayakumar**, Jian Shen, Joel J. P. C. Rodrigues, “An Efficient Anonymous Authentication and Key Agreement Scheme with Privacy-preserving for Smart Cities”, *International Journal of Distributed Sensor Networks*, SAGE, Vol.17, No.6, June 2021.
(Impact Factor: 1.640).
84. **P. Vijayakumar**, S. Bose, A. Kannan, L.Jegatha Deborah, “Computation and Communication Efficient Key Distribution Protocol for Secure Multicast Communication”, *KSII Transactions on Internet and Information Systems*, Vol.7, No.4, pp.878-894, April 2013.
(Impact Factor: 0.858).
85. L.Jegatha Deborah, R.Baskaran, A.Kannan, **P. Vijayakumar**, “Intelligent Agent Based Pair Programming and Increased Self-Efficacy through Prior-Learning for Enhanced Learning Performance”, *Malaysian Journal of Computer Science*, Vol.26, No.2, pp.87-100, June 2013.
(Impact Factor: 0.723).
86. S.Ganapathy, R.Sethukarasi, P.Yogesh, **P. Vijayakumar**, A.Kannan, “An Intelligent Temporal Pattern Classification System Using Fuzzy Temporal Rules and Particle Swarm Optimization”, *Sadhana - Academy Proceedings in Engineering Science*, Springer, Vol.39, No.2, pp.283-302, March 2014.
(Impact Factor: 1.43).
87. P.Pandiaraja, **Pandi Vijayakumar**, V.Vijayakumar, R.Seshadhri, “Computation Efficient Attribute Based Broadcast Group Key Management for Secure Document Access in Public Cloud”, *Journal of Information Science and Engineering*, Vol. 33, No.3, pp.695-712, May 2017.
(Impact Factor: 0.64).
88. S.Audithan, V.Vijayasaro, **Pandi Vijayakumar**, Bharat S. Rawal, “An Efficient Authentication Scheme for Mobile Cloud Computing Services”, *Journal of Information Science and Engineering*,

Vol. 33, No.3, pp.727-741, May 2017.
(Impact Factor: **0.64**).

89. Sathiyaseelan Rathinavel, **Vijayakumar Pandi**, Audithan Sivaraman, “On the Exploration of Adaptive Mechanisms Providing Reliability in Clustered WSNs for Power Plant Monitoring”, *The Scientific World Journal*, **Hindawi**, Article ID 4158735, Vol.2016, pp.1-13, January 2016.
(Impact Factor: **2.107**).
90. S.Ganapathy, **Pandi Vijayakumar**, P.Yogesh, A.Kannan, “An Intelligent CRF Based Feature Selection for Effective Intrusion Detection”, *International Arab Journal of Information Technology (IAJIT)*, Vol.13, No.1, pp.44-50, March 2015.
(Impact Factor: **0.96**).
91. L.Jegatha Deborah, R.Sathiyaseelan, S.Audithan and **P. Vijayakumar**, “Fuzzy-logic based Learning Style Prediction in E-learning using Web Interface Information”, *Sadhana –Academy Proceedings in Engineering Sciences*, Vol. 40, No.2, pp.379–394, April 2015.
(Impact Factor: **1.43**).
92. R.Kanniga Devi, G.Murugaboopathi, **Vijayakumar. P**, “An efficient Cloud Data Center allocation to the Source of requests”, *Journal of Organizational and End User Computing*, Vol.32, No.3, pp.23–36, July 2020.
(Impact Factor: **4.77**).

International Journal Publications-(Scopus/ESCI Indexed)

93. Hanlin Zhang, Jia Yu, Mohammad S. Obaidat, **Pandi Vijayakumar**, Linqiang Ge, Jie Lin, Jianxi Fan, Rong Hao, “Secure Edge-Aided Computations for Social Internet-of-Things Systems”, *IEEE Transactions on Computational Social Systems*, Vol.9, No.1, pp.76-87, February 2022.
94. Tianqi Zhou, Jian Shen, Debiao He, **Pandi Vijayakumar** and Neeraj Kumar, “Human-in-the-Loop-aided Privacy-preserving Scheme for Smart Healthcare”, *IEEE Transactions on Emerging Topics in Computational Intelligence*, Vol.6, No.1, pp.6-15, February 2022.
95. Fushan Wei, **P. Vijayakumar**, Qi Jiang, Ruijie Zhang, “A Mobile Intelligent Terminal Based Anonymous Authenticated Key Exchange Protocol for Roaming Service in Global Mobility Networks”, *IEEE Transactions on Sustainable Computing*, Vol.5 , No.2 , pp. 268 – 278, April 2020.
96. G.S.Mahalakshmi,G. Muthu Selvi, S.Sendhilkumar, **P. Vijayakumar**, Yongxin Zhu, Victor Chang, “Sustainable Computing Based Deep Learning Framework for Writing Research Manuscripts”, *IEEE Transactions on Sustainable Computing*, Vol.4, No.1, pp.4-16, January 2019.
97. Subramani Jegadeesan, Mohammad S Obaidat, **Pandi Vijayakumar**, Maria Azees, “SEAT: Secure and Energy Efficient Anonymous Authentication with Trajectory Privacy-Preserving Scheme for Marine Traffic Management”, *IEEE Transactions on Green Communications and Networking*, Accepted for Publication, 2021.
98. Yi Yang, Debiao He, **Pandi Vijayakumar**, Brij B Gupta, Qi Xie, “An Efficient Identity-based Aggregate Signcryption Scheme with Blockchain for IoT-enabled Maritime Transportation System”, *IEEE Transactions on Green Communications and Networking*, Accepted for Publication, 2022.

99. Prithwi Bagchi, Basudeb Bera, Ashok Kumar Das, Sachin Shetty, **Pandi Vijayakumar**, Marimuthu Karuppiah, "Post Quantum Lattice-Based Secure Framework using Aggregate Signature for Ambient Intelligence Assisted Blockchain-Based IoT Applications", *IEEE Internet of Things Magazine*, Accepted for Publication, 2022.
100. P.Pandiaraja, **Pandi Vijayakumar**, B.Balamurugan,K.Marimuthu, "A Novel Performance enhancing Task Scheduling Algorithm for Cloud based E-Health Environment", *International Journal of E-Health and Medical Communications (IJEHMC)*, IGI Global, Vol.10, No.2, pp.102-117, 2019.
101. **P. Vijayakumar**, S. Bose, A. Kannan, "Improved Harn Batch Digital Signature Algorithm for Multicast Authentication", *Journal of Discrete Mathematical Sciences and Cryptography*, Taylor & Francis, Vol.17, No.5-6, pp.435-442, 2014.
102. Bharat S Rawal, QiangDuan, **Pandi Vijayakumar**, "Dissection of the Experimental Outcome of Split-protocol", *International Journal of Advanced Intelligence Paradigms*, Inderscience, Vol.10, No.1-2, pp.23-44, January 2018.
103. Rajkumar. S C, Jegatha Deborah L, **P. Vijayakumar**, "Passive-Awake Energy Conscious Power Consumption in Smart Electric Vehicles Using Cluster type Cloud Communication", *International Journal of Cloud Applications and Computing (IJCAC)*, IGI Global, Accepted for Publication on 26.09.2021.
104. **Pandi Vijayakumar**, S. Bose, A. Kannan, "Rotation Based Secure Multicast Key Management for Batch Rekeying Operations", *Networking Science*, Springer, Vol.1, No.1, pp.39-47, March 2012.
105. **Pandi Vijayakumar** and M. Azees, "CEKM: Computationally Efficient Key DistributionScheme for Vehicular Ad-Hoc Networks", *Australian Journal of Basic and Applied Sciences*, SPECIAL ISSUE 1, pp.171-175, 2016.
106. S.MiltonGanesh, **P. Vijayakumar**, and L. Jegatha Deborah, "A Comprehensive Survey onGesture Based Authentication Schemes in Smart Phones", *Australian Journal of Basic and Applied Sciences*, SPECIAL ISSUE 1, pp.27-36, February 2016.

International Journal Publications- (Miscellaneous)

107. Marimuthu Karuppiah, Mohammad S. Obaidat, SK Hafizul Islam, **Pandi Vijayakumar**, "Security analysis on mutual authentication scheme for multimedia medical information systems", *Security and Privacy*, Wiley, Vol.2, No. 3, pp.1-7, April 2019
108. S.Audithan, T.S.Murunya,**Pandi Vijayakumar**, "Anonymous Authentication for Secure Mobile Agent Based Internet Business", *Circuits and Systems (CS)*, Scientific Research Publishing, Vol.7, No.8, pp.1421-1429, June 2016.
109. Bharat S. Rawal, Songjie Liang, Shiva Gautam, Harsha K. Kalutarage, and **P. Vijayakumar**, "Nth Order Binary Encoding with Split-protocol", *International Journal of Rough Sets and Data Analysis (IJRSDA)*, IGI Global, Vol.5, No.2, pp.95-118, April-June 2018.
110. S.C. Rajkumar. S C, Jegatha Deborah L, **P. Vijayakumar**, "Deep Reinforcement Learning based

pedestrian and independent vehicle safety fortification using intelligent perception”, *International Journal of Software Science and Computational Intelligence (IJSSCI)*, IGI Global, Volume 14, Issue 1, 2021.

111. T.S.Murunya, S.Audithan, **P. Vijayakumar**, “Mobile Agent Based Secure Internet Business Using Access Key Hierarchy Management Scheme”, *Journal of Information and Optimization Sciences*, Taylor & Francis, Vol.38, No.2, PP. 233-258, August 2015.
112. R.Sathiyaseelan and **P. Vijayakumar**, “An Efficient Angular Adaptive Rotational Clustering Mechanism in Wireless Sensor Networks”, *Advances in Natural and Applied Sciences*, vol.9, no.16, pp. 41-49, December, 2015.
113. **P. Vijayakumar**, S. Bose, A. Kannan, “Error Detection and Correction for Distributed Group Key Agreement Protocol”, *International Journal of Network Security & Its Applications*, AIRCC, vol.3, No.5, pp. 257-270, September 2011.
114. **P. Vijayakumar** and L.Jegatha Deborah, “ElGamal Cryptosystem based group key management for Peer to Peer Communication”, *International Journal of Advanced Research Trends in Engineering and Technology (IJARTET)*, Vol. 2, No. 9, 2015.
115. **P. Vijayakumar** and L.Jegatha Deborah, “A Detailed Survey on Secure Multicast Group Key Management Schemes”, *International Journal of Advanced Research Trends in Engineering and Technology (IJARTET)*, Vol. 2, No. 10, 2015.
116. L.Jegatha Deborah and **P. Vijayakumar**, “A Detailed Analysis of Feature Subset Selection Techniques for Classification Algorithms”, *International Journal of Advanced Research Trends in Engineering and Technology (IJARTET)*, Vol. 2, No. 9, 2015.
117. L.Jegatha Deborah and **P. Vijayakumar**, “Fuzzy Model with Learning Approaches for Classification Problem”, *International Journal of Advanced Research Trends in Engineering and Technology (IJARTET)*, Vol. 2, No. 10, 2015.
118. **P. Vijayakumar**, K.Anand, S.Bose, V.Maheswari, R.Kowsalya, A.Kannan, “Hierarchical key management scheme for securing mobile agents with optimal computation time,” *Procedia Engineering*, Elsevier, Vol.38, pp.1432-1443, 2012.

International Conferences Publications

1. Mohammad Wazid, Mohammad S.Obaidat, Ashok Kumar Das and **Pandi Vijayakumar**, “SAC-FIIoT: Secure Access Control Scheme for Fog-Based Industrial Internet of Things”, Accepted for Publication in IEEE GLOBECOM 2020.
2. J. Liu, X. Li, Q. Jiang, M. S. Obaidat and **Pandi Vijayakumar**, “BUA: A Blockchain-based Unlinkable Authentication in VANETs”, IEEE International Conference on Communications (ICC)2020, Dublin, Ireland, pp.1-6, 2020.
3. Mohammad Rasheed Ahmed, Kandala Meenakshi, Mohammad S. Obaidat, Ruhul Amin, **Pandi Vijayakumar**, “Blockchain Based Architecture and Solution for Secure Digital Payment System”, IEEE International Conference on Communications (ICC) 2021, Accepted for Publications, 2021.

4. N.Deepa, **P. Vijayakumar**, Bharat S Rawal, B.Balamurugan, “An extensive review and possible attack on the privacy preserving ranked multi-keyword search for multiple data owners in cloud computing”, organized by Colombia University, New York, USA, 2017.
5. Muhammad Ayaz Khan, Anwar Ghani, Mohammad S. Obaidat, **Pandi Vijayakumar**, Khwaja Mansoor, Shehzad Ashraf Chaudhry, “A Robust Anonymous Authentication Scheme using Biometrics for Digital Rights Management System”, 2021 International Conference on Communications, Computing, Cybersecurity, and Informatics (CCCI), IEEE, Accepted for publication, 2021.
6. Zhou Yousheng, Yang Luo, Mohammad S. Obaidat, **P. Vijayakumar**, Xiaojun Wang, “PAMI-Anonymous Password Authentication Protocol for Medical Internet of Things”, IEEE Global Communications Conference, IEEE GLOBECOM 2021, Accepted for publication, 2021.
7. **P. Vijayakumar**, M. Azees and L. Jegatha Deborah, “CPAV: Computationally Efficient Privacy Preserving Anonymous Authentication Scheme for Vehicular Ad Hoc Networks”, 2nd IEEE International Conference on Cyber Security and Cloud Computing, New York, USA, pp.62–67,2015.
8. **P. Vijayakumar**, S. Bose, A. Kannan, “Key Distribution for Pay-TV System with Reduced Computation Cost Using XOR Operation”, International Conference on Advanced Computing, Networking and Security (ADCONS’ 11), LNCS-Springer, Vol.7135, pp.477–484, 2012.
9. **P. Vijayakumar**, S Bose, A. Kannan, P.H Himesh, “Key Distribution Protocol for Secure Multicast with Reduced Communication Delay,” International Conference on Active Media Technology, LNCS-Springer, Vol.6890, pp.312-323, September 2011.
10. S. Milton Ganesh, **P. Vijayakumar**, L. Jegatha Deborah, Md. Zakirul Alam Bhuiyan, “Attacks on the Anti-collusion Data Sharing Scheme for Dynamic Groups in the Cloud”, SpaCCS 2017: Security, Privacy, and Anonymity in Computation, Communication, and Storage, Lecture Notes in Computer Science book series (LNCS-Springer), Vol.10658, pp.457-467, January 2017.
11. Arish Ali, Muhammad Faheem Mushtaq, Muhammad Umer, Maqsood Ahmad, Saima Sadiq, Michele Nappi, and **P. Vijayakumar**, “Smart Stove Automation Using Wireless Network and Mobile Application”, First International Conference on Industrial IoT, Big Data and Supply Chain (IIoTBDSC) 2020, China, Springer, Singapore, Vol.218, pp.369–388, April 2021.
12. Shangde Gao, Xin Liao, Sujin Guo, Xiong Li, **P. Vijayakumar**, “Forensic Detection for Image Operation Order: Resizing and Contrast Enhancement”, SpaCCS 2017: Security, Privacy, and Anonymity in Computation, Communication, and Storage, Lecture Notes in Computer Science book series (LNCS-Springer), Vol.10658, pp. 570-580, January 2017.
13. Rajendran Karthika, Lazarus Jegatha Deborah, **Pandi Vijayakumar**, Sivaraman Audithan, “Grouping Users for Quick Recommendations of Text Documents Based on Deep Neural Network”, SpaCCS 2017: Security, Privacy, and Anonymity in Computation, Communication, and Storage, Lecture Notes in Computer Science book series (LNCS-Springer), Vol.10658, pp.617-626, January 2017.
14. Niranchana Radhakrishnan, Marimuthu Karuppiah, **Pandi Vijayakumar**, Md Zakirul Alam Bhuiyan “A Lightweight Authentication Scheme with User Untraceability”, SpaCCS 2017: Security,

Privacy, and Anonymity in Computation, Communication, and Storage, Lecture Notes in Computer Science book series (LNCS-Springer), Vol.10658, pp.489-496, January 2017.

15. **P. Vijayakumar**, S. Bose, A. Kannan, V. Thangam, M. Manoji, M. S. Vinayagam, “Error Detection and Correction for Secure Multicast Key Distribution Protocol,” International Conference on Advances in Computing and Information Technology, CCIS-Springer, Vol.198, pp.308-319, 2011.
16. **P. Vijayakumar**, S. Bose, A. Kannan, S. Siva Subramanian, “A Secure Key Distribution Protocol for Multicast Communication,” International Conference on Logic, Information, Control & Computation, CCIS-Springer, Vol.140, pp.249-257, 2011.
17. **P. Vijayakumar**, L. Jegatha Deborah and R. Seshadhri, “Efficient Key Management Scheme for securing data in Cloud”, International Conference on Intelligent Information Technologies, Department of IST, Anna University Chennai, Accepted for Publication, 2014.
18. **P. Vijayakumar**, S. Bose, A. Kannan, S. Siva Subramanian, “An Effective Key Distribution Protocol for Secure Multicast Communication,” Second International Conference on Advanced Computing (ICoAC), IEEE Explorer, pp.102-107, 2010.
19. L. Jegatha Deborah and **P. Vijayakumar**, “Dynamic Ontology Alignment Framework based on Linguistics, Summary”, Eighth International Conference on Data Mining and Warehousing (ICDMW-2014), pp.25–27, July 2014, Accepted for Publication in Elsevier Proceedings.
20. **P. Vijayakumar**, “Efficient Data Storage and Security in Cloud Computing”, Fourth International Conference on Futuristic Trends in Electronics Engineering (ICFTEE2015), TCET, pp.7-8, March 2015.
21. **P. Vijayakumar**, “A Detailed Survey of Security Issues in Cloud Computing”, Second International Conference on Advanced Research in Engineering and Applied Sciences, S.R.I College of Engineering and Technology, pp.21-23, March 2015.
22. Pandiaraja Perumal and **P. Vijayakumar**, “Efficient Multikeyword Search Over Encrypted Data In Untrusted Cloud Environment”, Second International Conference on Recent Trends and Challenges in Computational Models (ICRTCCM '17), 3rd-4th February 2017.
23. R. Kanniga Devi, G. Murugaboopathi and **P. Vijayakumar**, “Graph-based Mathematical Model for an Efficient Load Balancing and Fault tolerance in Cloud Computing”, Second International Conference on Recent Trends and Challenges in Computational Models (ICRTCCM '17), 3rd-4th February 2017 – Accepted for Publication in IEEE Xplore.
24. Milton Ganesh, **P. Vijayakumar** and Jegatha Deborah, “A Secure Gesture Based Authentication Scheme to Unlock the Smart Phones”, Second International Conference on Recent Trends and Challenges in Computational Models (ICRTCCM '17), 3rd-4th February 2017.
25. Akshat Pradhan, Marimuthu Karuppiah, Niranchana Radhakrishnan and **P. Vijayakumar**, “Secure protocol for Subscriber Identity Module”, Second International Conference on Recent Trends and Challenges in Computational Models (ICRTCCM '17), 3rd-4th February 2017 – Accepted for Publication in IEEE Xplore.

26. L. Jegatha Deborah, S.C. Rajkumar, **P. Vijayakumar**, Chapter 4 – “Medical decision support system using data mining: an intelligent health care monitoring system for guarded travel”, Handbook of Computational Intelligence in Biomedical Engineering and Healthcare, Academic Press, Elsevier, 2021, pp.93-119, ISBN 9780128222607.

National Conference Publications

1. L.Jegatha Deborah, **P. Vijayakumar**, “Enhanced Detection of Learners Learning Styles for E-Learning”, National Conference on Computing Techniques (ncct'15), University College of Engineering Villupuram, Vol.7, No.2, pp.176-180, 2015.
2. B. Sivaranjani and **P. Vijayakumar**, “A technical survey on various VDC request embedding techniques in Virtual Data Center”, National Conference on Parallel Computing Technologies (PARCOMPTECH), IEEE Xplore, pp.1-6, 2015.
3. **P. Vijayakumar**, L.Jegatha Deborah, “Tree based key management scheme for secure multimedia multicast”, National Conference on Computing and Applications (NACCA 06), National Engineering College, Kovilpatti, Tamilnadu, Feb 24, 2006.
4. **P. Vijayakumar**, S.Benson Edwin Raj, “Key Distribution for secure multimedia group communication via media dependent channel”, National Conference on Recent Advances & Future Trends in IT, Bharat Institute of Higher Education and Research, Chennai, India, Feb 1-2, 2005.

Invited talk

1. A seminar on *Data Warehousing* was given to the students at the KLN Memorial Polytechnic College, Madurai on 27.07.2005.
2. Delivered a Guest Lecture on *Emerging Trends in Information Security* in the Department of CSE at Prist University-Kumbakonam Campus on 12-08-2011.
3. Delivered a Guest Lecture on *Information Security* in the Conference ICFTEE (International Conference on Futuristic Trends in Electronics Engineering) at TCET on 28-01-2012.
4. Given a guest lecture on *Network Security* in the department of Computer Science and Engineering, IFET College of Engineering on 19-07-2012.
5. Handled two sessions in the Faculty Development Programme conducted on *Artificial Intelligence* on 03-12-2012 in the department of Computer Science and Engineering, University College of Engineering Tindivanam.
6. Handled two sessions in the Faculty Development Programme conducted on *Cryptography and Network Security* on 05-12-2012 and 06-12-2012 in the department of Information Science and Technology, Anna University Chennai.
7. Handled two sessions in the Faculty Development Programme conducted on *Cryptography and Network Security* on 06-12-2012 in the department of Information Science and Technology, Anna University Chennai.
8. Handled two sessions in the Faculty Development Programme conducted on *Cryptography and Network Security* on 24.06.2013 and 25-06-2013 in the department of Computer Science & Engineering, College of Engineering Guindy, Anna University Chennai.
9. Handled a session on *Group Theory and Its Applications* in the Faculty Development Programme conducted on *Discrete Mathematics* on 27-06-2013 in the Department of Maths, University College of Engineering, Tindivanam.
10. Given a guest lecture on *Cryptography and Network Security* in the Department of CSE at M.R.K

Institute of Technology, on 26-07-13.

11. Handled two sessions in the TEQIP sponsored Faculty Development Programme on *Research Trends in Network Security* on 07-08-2013 in the Department of Information Technology at Anna University Tiruchirappalli, BIT Campus.
12. Handled a session on *Detecting & Preventing Password & SQL Injection Attacks* in the Ethical Hacking & Counter Measures training course on 12-08-2013 in the department of Computer Science & Engineering, CEG, Anna University Chennai.
13. Given a guest lecture on *Network Security* in the Department of CSE and IT, Idhaya Engineering College for Women(IECW), Chinnasalem - 606 201 on 30-09-13.
14. Given a guest lecture on *Machine Intelligence through Logic & Reasoning* in the department of Computer Science and Engineering, IFET College of Engineering on 04-02-2014.
15. Given an invited talk in the national conference *Advanced Methodologies in Information and Communication Engineering (NCAMICE 14)* in the IT department at Mailam Engineering College on 22-03-2014.
16. Delivered a Guest Lecture on *Research Issues in Multicast Security* in the Department of Computer Science and Engineering at Pondicherry Engineering College on 18-11-2014.
17. Handled two sessions on *Key Management Techniques for Internet Security* in the DST sponsored workshop *Recent Techniques in Web Services and Internet Security* conducted at DIST, CEG on 19-02-15.
18. Delivered a Guest Lecture on *Cryptography and Network Security* in the Conference ICFTEE (International Conference on Futuristic Trends in Electronics Engineering) at TCET on 07-03-2015.
19. Delivered a Guest Lecture on *Cryptography and Network Security* in the Conference *Advanced Research in Engineering and Applied Sciences* at S.R.I College of Engineering and Technology on 21-03-2015.
20. Given an invited talk on *Computer Networks and Security* in the National Conference *Ncct 15* at University College of Engineering Villupuram on 31-03-2015.
21. Given an invited talk on *Secure Document Access from Cloud* in the National Conference *NCSCA 15* at University College of Engineering Tindivanam on 30-04-2015.
22. Handled two sessions in the AICTE sponsored 2 week Summer Winter School *Use of Mathematical Complexity and Advanced Cryptographic Techniques in Network Security* on 19-05-2013 in the Department of Computer Science & Engineering, Adhiparasakthi Engineering College, Melmaruvathur.
23. Handled two sessions in the Faculty Development Programme conducted on *Cryptography and Network Security* on 25-05-2015 in the department of Computer Science & Engineering, Anna University Chennai.
24. Handled two sessions in the Faculty Development Programme conducted on *MA 6566 Discrete Mathematics* on 26-05-2015 in the Department of Mathematics, University College of Engineering Villupuram.
25. Handled two sessions in the Faculty Development Programme conducted on *Cryptography and Network Security* on 27-05-2015 in the department of Computer Science & Engineering, Anna University Chennai.
26. Given an invited talk on *Recent Trends in Network Security* at Aksheyaa College of Engineering, on 31-07-2015.
27. Delivered a lecture on the topic *Formulation and Solution of Research Problems* in the FDP conducted by Arunai Engineering College on 12.01.2016.
28. Given a lecture in the FDP on *Cryptanalysis & Internet Security* conducted by Dept. of CSE of Sri Sairam Institute of Technology, Chennai on 27.06.2016.
29. Given the keynote address in the IEEE Sponsored International Conference on Algorithms, Methodology, Models and Applications in Emerging Technologies (ICAMMAET) in Bharath Institute of

Higher Education and Research on 16.02.2017.

30. Given a guest lecture on the topic *Advanced Research in Engineering & Applied Sciences* in 4th International Conference(ICARES' 17) conducted by S.R.I. College of Engineering & Technology, Vandavasi on 22.03.2017.
31. Delivered a keynote address in the International Conference on *Newer Engineering Concepts and Technology (ICONNECT2K17)* on 28.03.2017 and 29.03.2017 in K.Ramakrishnan College of Technology, Trichy.
32. Delivered a guest lecture on *Network Performance Analysis* in the Departments of CSE and IT of Arunai Engineering College on 19.01.2018.
33. Delivered a keynote address in the Dept. of Bio Technology Ministry of Science & Technology, Govt. of India sponsored eight days National Workshop on Modernization in Bioinformatics and Bigdata (MIBAB-16) conducted by Dept. of Computer Applications, Anna University BIT Campus, Tiruchirappalli.
34. Delivered a lecture on *Network Security* on 30-09-2013 in Department of CSE and IT, Idhaya Engineering College for Women(IECW), Chinnasalem - 606 201.

Training Programs Conducted

1. FDP program on *Artificial Intelligence and Cryptography* at Sethu Institute of Technology, From 23.01.2006 To 23.01.2006
2. FDP program on *Artificial Intelligence* at UCET, From 03.12.2012 To 09.12.2012
3. FDP program on *Programming and Data Structures II* at UCET, From 08.06.2015 To 14.06.2015
4. FDP program on *Mobile Computing* at UCET, From 24.11.2016 To 30.11.2016
5. National Level Technical Symposium, *TECHNOVATION* at UCET, From 19.08.2011 To 19.08.2011
6. National Level Technical Symposium, *SERVIDOR2k12* at UCET, From 28.09.2012 To 28.09.2012
7. Intra College Technical Symposium, *UCETROX'13* at UCET, From 11.02.2013 To 11.02.2013
8. National Level Technical Symposium, *INNOVAZZ 13* at UCET, From 27.09.2013 To 27.09.2013
9. National Level Technical Symposium, *Cetana Ranya'14* at UCET, From 12.09.2014 To 12.09.2014
10. A seminar on *Web Services and its Applications* was conducted in the CSE department at UCET, From 16.03.2015 To 16.03.2015
11. FDP program on *Computer Networks* at UCET, From 04.12.2017 To 10.12.2017
12. First *International Conference On Recent Trends and Challenges In Computational Models (ICRTCCM'16)*, From 11.02.2016 To 13.02.2016
13. Second *International Conference On Recent Trends and Challenges In Computational Models (ICRTCCM'17)*, From 03.02.2017 To 04.02.2017
14. Co-ordinated *Two Weeks Employability Skill Building Programme* jointly organized by CUIC, Anna University, Chennai, From 06.02.2017 To 20.02.2017

List of Seminar / Short Term Course /FDP/ Workshop attended

1. Workshop (2005), *Networking Technologies & Security*, organized by Dept. of CSE, Kamaraj College of Engineering & Technology during 30.08.2005 to 31.08.2005. (**2 days**)
2. DRDO sponsored Three days workshop (2008) on "Image Processing Applications in Remote Sensing and Surveillance"-IPRO'08 organized by P.S.R. Engineering College from 12-06-2008 to 14-06-2008. (**03 days**)
3. D.S.A. sponsored Workshop (2009), *Challenges in Intelligent Web Applications*, organized by Dept. of CSE, CEG, at Anna University, Chennai25 during 09.03.2009 to 10.03.2009. (**2 days**)
4. Workshop (2010), *Cryptography*, organized by University College of Engineering Tindivanam, Tindivanam. During 08.10.2010 to 09.10.2010. (**2 days**)
5. Training Programme (2010), *Rational Application Development*, organized by IBM Academic Initiative India and Anna University of Technology at Anna University of Technology, CPT

- Campus, Tharamani, Chennai-113. During 28.10.2010 to 31.10.2010. (**4 days**)
6. Workshop (2011), *Grid Computing – WGC 2011*, organized by Department of Science & Technology, New Delhi at Department of Computer Technology, MIT campus, Chennai-44 during 07.02.2011 to 11.02.2011. (**5 days**)
 7. Faculty Development Programme (2011), *Ripple 2011*, organized by Cognizant and Anna University of Technology, Chennai at Cognizant Academy, Chennai during 17.02.2011 to 18.02.2011. (**2 Days**)
 8. Faculty Development Training Programme (2011), *CS2402- Mobile & Pervasive Computing*, organized by Centre for Faculty Development, Anna University, Chennai-25 during 30.05.2011 to 05.06.2011. (**7 Days**)
 9. Workshop (2011), *Simulation of Advanced Networks Using NS-29*, organized by Department of Information Technology, MIT campus, Chennai-44, during 02.12.2011 to 03.12.2011. (**2 days**)
 10. Faculty Development Training Programme (2011), *IT 2352 Cryptography & Network Security*, organized by Centre for Faculty Development, Anna University, Chennai-25 at MIT campus, Anna University, Chennai-44. During 17.12.2011 to 23.12.2011. (**7 Days**)
 11. National Mission on Education through ICT (MHRD)sponsored Workshop (2012), *Writing Effective Conference Papers* , organized by Conducted by IIT Bombay (MHRD), during 18.02.2012 to 19.02.2012. (**2 days**)
 12. Faculty Development Training Programme (2012), *CS 2301 Software Engineering*, organized by Centre for Faculty Development, Anna University, Chennai-25 during 07.05.2012 to 13.05.2012. (**7 Days**)
 13. International Symposium (Short term course) (2014), *First International Symposium on Big data and Cloud Computing Challenges (ISBCC)*, organized by School of Computing Sciences and Engineering at VIT Chennai during 27.03.2014 to 28.03.2014. (**2 days**)
 14. Workshop (2014), *Cyber Security*, organized by ISTE Sponsored workshop under the National Mission on Education through ICT (MHRD, Govt. of India) conducted by IIT Bombay at M.I.T, Anna University, during 10.07.2014 to 20.07.2014. (**11 days**)
 15. Workshop (2014), *Big Data Analytics*, organized by Department of Information Technology, MIT campus, Chennai-44 at M.I.T, Anna University, during 21.11.2014 to 22.11.2014. (**2 days**)
 16. DST-PURSE Sponsored Workshop (2015), *Recent Techniques in Web services and internet security*, organized by Dept. of Information Science and Technology, CEG, Anna University, Chennai, during 18.02.2015 to 19.02.2015. (**2 days**)
 17. Faculty Development Programme (2017), *Context-Aware Recommender System in Cloud Environment*, organized by Dept. of CSE, TCE, Madurai, during 20.11.2017 to 03.12.2017. (**14 Days**)
 18. Faculty Development Programme (2017), *Smart Grid and Clean Energy Technologies (SGCET-2017)*, organized by Dept. of EEE, PEC, during 11.12.2017 to 22.12.2017. (**12 Days**)
 19. Short Term Course (2018), *Application of Micro Grid in Distributed Generation Together with Clean Energy Technology (MGCET – 2018)*, organized by Dept. of EEE, Pondicherry Engineering College, Puducherry, during 29.01.2018 to 02.02.2018. (**5 Days**)
 20. Faculty Development Programme (2018), *Entrepreneurship Development*, organized by Organized by Centre for Entrepreneurship Development (CED), Centre for Intellectual Property Rights (CIPR) in association with Entrepreneurship Development & Innovation Institute (EDII-TN) CEGAIN – CEG Alumni Incubator & I.N.D.I.A Trust at Anna University, Chennai, during 13.02.2018 to 23.02.2018. (**11 Days**)

Other Participation Programs

1. Participated as a *jury* at the National Level Technical Symposium, V.R.S. College of Engg & Technology, Arasur, Villupuram on 22.09.2010
2. Participated as a *jury* at the National Level Technical Symposium, IFET College of Engineering

- and Technology, Villupuram on 28.08.2011
3. Participated as a *jury* at the National Level Technical Symposium, University College of Engineering Villupuram, Villupuram on Feb 2012
 4. Participated as a *jury* at the International Conference, Thiruvalluvar College of Engineering and technology, Vandavasi on 03.03.2013
 5. Participated as a *jury* at the National Level Conference, IFET College of Engineering and Technology, Villupuram on 06.03.2013
 6. Participated as a *jury* at the Intra Department Project Contest, V.R.S. College of Engg & Technology, Arasur, Villupuram on 04.04.2013
 7. Participated as a *Chief Guest* at the Department Technical Association Valediction Function, Mailam College of Engineering and Technology, Mailam on 30.04.2013
 8. Participated as a *participant* in Python Training at the Thiagarajar College of Engineering, Madurai on 27.11.2017
 9. Participated as a *participant* in the Exhibition on Education, Science, Technology and Innovation (EESTI-2016) at Anna University, Chennai from 24.01.2016 to 26.01.2016
 10. Participated as a *Chief Guest* in the Valedictory function for the association *SAIT-2012* at Mailam Engineering College on 30.04.2012
 11. Participated as a *jury* at the Science & Technology Project Exhibition (GENERIC 2014), Mailam Engineering College on 29.03.2014
 12. Participated as a *jury* at the National Level Technical Symposium (MITILENCE' 14), Dept. of CSE, Manakula Vinayagar Institute of Technology, Puducherry on 06.02.2014
 13. Participated as a *Chief Guest* at the 4th International Conference on Advanced Methodologies in Information and Communication Engineering, Mailam Engineering College on 22.03.2014
 14. Participated as a *Chief Guest* at the College Day Celebrations, Rangaboopathi Engineering College on 30.03.2017
 15. Participated as a *jury* at the Paper presentation of the National Conference – *TECHCON'13*, IFET College of Engineering, Villupuram on 06.04.2013
 16. Participated as a *jury* at the Project Expo for SCIMIT 2015, Manakula Vinayagar Institute of Technology on 28.02.2015
 17. Participated as a *jury* at the Paper presentation for the *ITECHEFEST 09*, Dept. of CSE, IFET College of Engineering on 11.09.2009
 18. Participated as a *participant* in the National Level Technical Symposium *SAHANA – The Battle of Technocrat* organized by CSI Student Branch, Dept. of CSE, Cape Institute of Technology in association of Computer Society of India on 12.09.2009

Editorial Services

1. *Editors-in-Chief*, Cyber Security and Applications (KeAi|Elsevier)
2. *Associate Editor*, International Journal of Communication Systems (Wiley)
3. *Associate Editor*, PLOS ONE
4. *Associate Editor*, International Journal on Semantic Web and Information Systems (IGI Global)
5. *Academic Editor*, Security and Communication Networks (Wiley|Hindawi)
6. *Technical Committee*, Computer Communications (Elsevier)
7. *Associate Editor*, International Journal of Organizational and Collective Intelligence (IGI Global)
8. *Associate Editor*, International Journal of Software Science and Computational Intelligence (IGI Global)
9. *Associate Editor*, International Journal of Cloud Applications and Computing (IGI Global)
10. *Associate Editor*, International Journal of Digital Strategy, Governance, and Business Transformation (IGI Global)
11. *Associate Editor*, SECURITY AND PRIVACY (Wiley)

12. Holding *Reviewer* position in many SCI-indexed journals like IEEE Transactions, Elsevier, Springer, etc...

————— Contact details

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