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SUMMARY

- Presently **Associate Professor**, Department of Computer Science and Engineering, Malaviya National Institute of Technology, Jaipur
- **Ph. D. (Computer Science)** from the Department of Electronics and Computer Engineering, Indian Institute of Technology Roorkee, Roorkee, 2012.
- **25+ years of Teaching, Research and Administrative experience** in NIT and UGC / AICTE recognized Engineering Colleges

EDUCATIONAL QUALIFICATIONS

- **Ph. D. (Computer Science)** from Indian Institute of Technology Roorkee, Roorkee, January 2012. Thesis: “*A Framework for Network Forensic Analysis*”.
- **Master of Technology (Computer Science)** with First Class (78.67%) from Birla Institute of Technology, Ranchi, January 2002.
- **Bachelor of Technology (Electronics & Communication Engineering)** with First Class (62.88%) from Nagarjuna University, A. P, June 1996.

TECHNICAL / ACADEMIC EXPERIENCE

- **Associate Professor**, Department of Computer Science Engineering, Malaviya National Institute of Technology, Jaipur from May 2018 till date
- **Assistant Professor**, Department of Computer Science Engineering, Malaviya National Institute of Technology, Jaipur from July 2013 till May 2018
- **Professor**, Department of Computer Science & Engineering, School of Computing, Graphic Era University, Dehradun from July 2011 till July 2013
- **Research Scholar** (Ph. D Full Time Programme) in Department of Electronics and Computer Engineering, I. I. T. Roorkee, from January 2008 to June 2011.
- **Senior Lecturer**, Department of IT in College of Engineering Roorkee, Roorkee, from August 2006 to December 2007.
- **Associate Professor** (Reader), Department of CSE & IT in Guru Nanak Engineering College, Hyderabad, from December 2001 to July 2006.
- **Assistant Professor** (Lecturer) in the Department of CSE in VNR Vignana Jyothi Inst. of Engineering & Technology, Hyderabad, from August 1997 to November 2001.
- **QA Engineer** in Phoenix Telecommunications Limited, Electronic Complex, Hyderabad from August 1996 to March 1997.

ADMINISTRATIVE EXPERIENCE

- **Indian Institute of Information Technology, Kota**
 - ✓ **Co-Coordinator / Dean (Academic Affairs)** from Jan 2023 till date

- **Rajasthan ILD Skills University, Jaipur**
 - ✓ **Honorary Dean**, Faculty of Network & Hardware, from May 2019 till date

- **Malaviya National Institute of Technology, Jaipur**
 - ✓ **Convener, Department PG Committee**, Dept. of CSE, July 2023 till date
 - ✓ Coordinator, Green Committee, MNIT, June 2022 till date
 - ✓ **Associate Dean Research**, MNIT, July 2022 to June 2024
 - ✓ Program Advisor, M. Tech July 2022 to June 2024
 - ✓ **Coordinator, Regional Academic Center for Space (ISRO-RACS)**, July 2021 to July 2022
 - ✓ Coordinator, Timetable, Department of CSE, June 2021 to July 2022
 - ✓ **Head of the Department, Computer Science and Engineering**, June 2019 to June 2021
 - ✓ **Coordinator, Campus Wide Networking and Telephony**, June 2014 to July 2020
 - ✓ Member, Virtual Classroom and Video Conferencing Committee
 - ✓ Member, Online Convocation Committee (Webcasting) 2019-20 and 2020-21 batches
 - ✓ Member, Department PG Committee, Dept. of CSE, June 2014 till June 2023
 - ✓ Member, Accreditation Committee, Dept. of CSE, June 2014 to June 2016
 - ✓ Lab In charge, Cloud and Data Science Lab (earlier Network Lab), July 2014 to 2019
 - ✓ Project Coordinator, B. Tech CSE, July 2015 to May 2016
 - ✓ Program Advisor, B. Tech / M. Tech July 2015 to July 2020
 - ✓ Principal Investigator, NVIDIA CUDA Teaching Center, October 2014 to December 2015
 - ✓ **Warden, Aurobindo Hostel** (900+ seater), July 2015 to October 2019

- **Graphic Era University, Dehradun**
 - ✓ **Dean, School of Computing** from July 2011 to January 2012
Major Responsibilities: Coordinating around 85 faculty and 3200 students of B. Tech CSE, B. Tech IT, M. Tech CS, IT & CNE, MCA, BCA, M. Sc IT, and B. Sc IT.
 - ✓ **Chairman**, Board of Studies, School of Computing (effected Syllabus revision in 2011-12)
 - ✓ **Member**, Academic Council of the University, June 2011 to July 2013
 - ✓ **Member**, University Research and Consultancy Board, February 2011 to July 2013
 - ✓ **Member**, University Ordinance Review Committee, June 2012 to July 2013
 - ✓ **Member**, Doctoral Progress Monitoring Committee [Ph. D students review]
 - ✓ **Member**, Department Research Committee (DRC), Department of CS & IT
 - ✓ **External Expert**, Department Research Committees (ECE, ME, and Management)
 - ✓ External Expert, Board of Studies, Department of CSE and Department of IT, Uttarakhand Graphic Era Hill University (UGEHU).
 - ✓ External Expert, Research Progress Monitoring Committee, Department of CSE, Uttarakhand Graphic Era Hill University (UGEHU).

- **College of Engineering Roorkee, Roorkee**
 - ✓ **Head, Department of IT** from Aug 2007 to Dec 2007.
Major Responsibilities: Faculty Recruitment, Faculty Development and Appraisal, Lab Establishment, Academic Planning, B. Tech Projects Coordinator

- **Guru Nanak Engineering College, Hyderabad**
 - ✓ **Officer-in-charge of Examinations** from November 2001 till July 2006.
Major Responsibilities: Correspondence with University (JNTU), Scheduling and Conduct of Examinations, Result Analysis & Documentation.
 - ✓ **Head of Department, CSE & IT** from Nov 2001 to Aug 2002 & Sept 2005 to July 2006.
Major Responsibilities: Faculty Recruitment, Lab Establishment, NBA Preparation
 - ✓ **Assistant Coordinator, JNTU Spot Valuation Center** from Nov 2005 to Jan 2006
Major Responsibilities: Receiving and Dispatching coded Answer scripts bundles, Arranging Valuers and Chief Examiners, Tabulation of Award Lists, Forwarding of bills
 - ✓ College level Appointments: B. Tech Projects Coordinator, Placement Committee, Discipline Committee, Accreditation (NBA) Committee, Library Committee.

SUBJECTS HANDLED

1. Programming: Pascal, C, C++ and Java
2. Data Structures
3. Computer Architecture
4. Discrete Structures
5. Logic in Computing
6. Theory of Computation
7. Compiler Design
8. Graph Theory
9. Computer Networks
10. Unix and Shell Programming
11. Cryptography and Network Security
12. Selected Topics in Computing
13. Software Engineering
14. Computer Graphics
15. Multimedia Systems
16. Operating Systems
17. Systems Programming
18. Advanced Computing Concepts
19. Client Server Programming
20. Parallel and Concurrent Programming
21. Evolving Architectures
22. Cloud Security
23. Emerging Topics in Computer Science
24. Security Engineering
25. Quantum Computing
26. Python Programming

RESEARCH PROJECTS COMPLETED

- Financial Grant of Rs. 4.60 Lakhs from Data Security Council of India for the Project titled **“ZigBSec - Enhanced Security for ZigBee Networks”** for 6 months [January to June 2023] – extended by four months.
Role: PI
- Financial Grant of Rs. 78.76 Lakhs from Ministry of Electronics and Information Technology for the Project titled **Information Security Education Awareness II** for 4 years [April 2016 to December 2022] Status: Completed;
Role: Co-PI, PI: Prof. Vijay Laxmi
- Financial Grant of Rs 10.13 Lakhs from TEQIP Collaborative Research Scheme for the Project **“Pattern Analysis & Knowledge Discovery in e-Learning platform using Data Mining & Big Data Framework”**, for 2 Years [June 2019 to June 2021] Status: Completed;
Role: Co-PI, PI: Mr. Satish Ray
- Financial Grant of Rs. 55.50 Lakhs from Ministry of Electronics and Information Technology MeitY (E- Security Division) for the Project titled **“Security Analysis Framework for Android Platform (SAFAL)”** for 3 years [Dec 2014 – Dec 2017] Status: Completed;
Role: Co-PI, PI: Prof. Vijay Laxmi
- Financial Grant of Rs. 1.48 Lakhs from Uttarakhand Council for Science & Technology (UCOST) for the Project titled **Investigating the Source of the Spoofed Emails** with No. UCS&T/R&D/PHY SC.-05/12-13/6203/1 [April 2013- March 2016] Status: Completed
Role: Principal Investigator, Co PIs: Mr. Sumit Pundir and Ms. Preeti Mishra
- Financial Grant of Rs. 779.00 Lakhs from Ministry of Electronics and Information Technology for the Project titled **Electronics and ICT Academy** for 4 years with No. 3(6) / 2012 – HRD (Vol.V) (Pt.) dated 09.11.2015 [December 2015 to March 2023]
Role: Co-Chief Investigator, Chief Investigator: Prof. Vineet Sahula

RESEARCH PROJECT IN PROGRESS

- Financial Grant of Rs. 10.05 Crores from Ministry of Electronics and Information Technology for the Project titled **Electronics and ICT Academy Phase II** for 5 years with No. F. No. L-14011/1/2024-HRD dated 26.04.2024 [May 2024 to May 2029] Status: Ongoing;
Role: Co-Chief Investigator, Chief Investigator: Prof. Vineet Sahula
- Financial Grant of Rs. 78.76 Lakhs from Ministry of Electronics and Information Technology for the Project titled **Information Security Education Awareness III** for 4 years [April 2024 to March 2028] Status: Ongoing;
Role: Co- Principal Investigator, PI: Prof. Vijay Laxmi

- Financial Grant of Rs. 30.00 Lakhs from Technology Development Programme (TDP), Department of Science and Technology for the Project titled “***Demand Response Management platform in Smart Grid for Effective Performance***” for 3 years [January 2023 to December 2025]
Role: Co – Principal Investigator, PI: Dr. Namita Mittal
- Financial Grant of Rs. 91.39 Lakhs from IIT Jammu for the Project titled ***Analyzing Vulnerabilities in Applications and Device Drivers in Linux and Windows Platforms using Symbolic Execution*** for 2 years [April 2021 to March 2023]
Role: Co – Principal Investigator, PI: Prof. Vijay Laxmi
- Financial Grant of Rs. 76.71 Lakhs from IIT Jammu for the Project titled ***A simulation and emulation oriented cyber testbed for training and defense in cybersecurity***, for 2 years [April 2021 to March 2023]
Role: Co – Principal Investigator, PI: Dr. Smita Naval
- Financial Grant of Rs. 21.34 Lakhs from Science and Engineering Research board (SERB), Department of Science and Technology, for the Project titled ***Designing Hybrid Introspection enabled VMM-based Security Architecture to protect against attacks*** for 3 years [January 2022 to December 2024]
Role: Co-PI, PI: Dr. Preeti Mishra, Doon University, Dehradun, India.
- Financial Grant of Rs. 21.16 Lakhs from National Supercomputing Mission R&D projects on HPC Applications, for the Project titled ***Disruptive Event Prediction Platform based on Continual Machine Learning*** for 2 years
Role: Co – Principal Investigator, PI: Dr. Satyendra Singh Chouhan.

CONSULTANCY IN PROGRESS

- Consultancy of Rs. 8.70 Lakhs from Jaipur Smart City Limited (JSCL) for Third Party Inspection of ICT Material in the Development of Smart Road (ICT Works) in ABD area of Jaipur with No. 485 / JSCL / 2018. Status: Ongoing
Role: Member, PI: Prof. D. Boolchandani

LABORATORIES DEVELOPED

- **Vulnerability Assessment and Penetration Assessment Lab (2022-23)**
Metasploit Pro - Single User Subscription for 3 Years
Nexpose - Subscription License for 3 Years for 128 nodes and up to Three (3) Consoles
- **High Performance Computing Lab (2019-20)**
Workstations with Intel Xeon Silver 4110 8 Core processors - 6 Nos
RTX2080Ti GPUs with 11GB memory - 12 Nos (2 in each workstation)
- **Parallel Computing Lab (2014-15)**
Tyrone Camarero DS200T3R-34 (Workstation Intel Xeon Dual Core CPU) with GPU Tesla K40
Tyrone Camarero SS2R0T3R-34 (Workstation Six Core Intel Xeon Processor) - 4 Nos with GPU Quadro 6000 - 2 Nos and GPU GTX680 - 2 Nos

BOOKS PUBLISHED

- Ramesh C. Joshi and **Emmanuel S. Pilli**, “Fundamentals of Network Forensics – A Research Perspective,” I Ed., London, UK: Springer-Verlag (Computer Comm. & Networks Series), 2016
- Preeti Mishra, **Emmanuel S. Pilli** & R. C. Joshi, “Cloud Security – Attacks, Techniques, Tools, and Challenges,” Taylor and Francis (CRC Press), 2021, ISBN 978-0-3674-3582-0
- Rajeev Agrawal, Jing He, **Emmanuel S. Pilli**, Sanjeev Kumar, “Cyber Security in Intelligent Computing and Comm.” Springer Singapore (Studies in Computational Intelligence), 2022,

BOOK CHAPTERS PUBLISHED

- Avani Sharma, **Emmanuel S. Pilli** and Arka. P. Mazumdar, “Trust Management for Internet of Things,” (chapter 10) *The Internet of Things: Foundations for Smart Cities, eHealth and Ubiquitous Computing*, CRC Press, Taylor & Francis Group, UK, 2017.
- M. Choudhary, S. S. Chouhan, **Emmanuel S. Pilli**, “Credibility Assessment of Healthcare Related Social Media Data,” (chapter 5) *Data Science and its Applications*, Chapman and Hall / CRC Press, Taylor & Francis Group, pp. 87-102, 2021.
- S. Rohilla, M. Jadeja, and **Emmanuel S. Pilli**, “Do more with less: Deep Learning in Medical Imaging,” in *Convolutional Neural Networks for Medical Image Processing Applications*, CRC Press, Taylor & Francis Group, pp. 109 – 132, 2022.

PAPERS PUBLISHED IN INTERNATIONAL JOURNALS

1. S. Rohilla, M. Jadeja, **E. S. Pilli**, P. Vyas, and P. Gehlot, “CC-GCN: A novel Graph-based approach for Identification and Detection of Autism Spectrum Disorder,” *Multimedia Tools and Applications*, (Springer), vol. 83, pp. 1-22, 2024
2. M. Choudhary, S. Patil, S. S. Chouhan, **E. S. Pilli**, “MmDs: Multimodal Benchmark Dataset for Suspicious Profile Detection on Twitter Social Network,” *Social Network Analysis and Mining* (Springer), vol. 14, pp. 1-9, 2024
3. A. Seetha, S. S. Chouhan, **E. S. Pilli**, V. Raychoudhury, and S. Saha, “DiEvD-SF: Disruptive Event Detection using Continual Machine Learning with Selective Forgetting,” *IEEE Transaction on Computational Social Systems (IEEE)*, vol. 11, pp. 4189 – 4201, 2024
4. A. Seetha, S. S. Chouhan, **E. S. Pilli**, V. Raychoudhury, “DiEvD: Disruptive Event Detection from Dynamic Datastreams using Continual Machine Learning: A Case Study with Twitter,” *IEEE Transactions on Emerging Topics in Computing (IEEE)*, vol. 12, pp. 727 – 738, 2024
5. L. Sadineni, **E. S. Pilli** and R. B. Battula, “ProvLink-IoT: A Novel Provenance model for Link-Layer Forensics in IoT Networks,” *Forensic Science International: Digital Investigation*, vol. 46, Article No. 301600, 2023
6. A. Sharma, **E. S. Pilli**, A. P. Mazumdar, A. Jain, “BLAST-IoT: BLockchain Assisted Scalable Trust in Internet of Things,” *Computers and Electrical Engineering*, vol. 109, Article No. 108752, 2023
7. P. K. Keserwani, M. C. Govil, and **E. S. Pilli**, “An effective NIDS framework based on a comprehensive survey of feature optimization and classification techniques,” in *Neural Computing and Applications*, vol. 35, pp. 4993–5013, 2023.
8. A. Sharma, **E. S. Pilli**, and A. P. Mazumdar, “BD-Trust: Behavioral and Data Trust Management Scheme for Internet of Things,” *Journal of Ambient Intelligence and Humanized Computing*, vol. 14, pp. 16195 - 16207, 2023.
9. L. Sadineni, **E. S. Pilli** and R. B. Battula, “ProvNet-IoT: Provenance based network layer forensics in Internet of Things,” *Forensic Science International: Digital Investigation*, vol. 43, Article No. 301441, 2022
10. A. K. Mishra, **E. S. Pilli**, and M. C. Govil, “CONTAIN4n6: A Forensics Architecture for Container Environment,” *Journal of Cloud Computing*, vol. 11, no. 1, Article No 28, 2022
11. G. Sharma, A. M. Joshi, **E. S. Pilli**, “DepML: An efficient machine learning-based MDD detection system in IoMT framework,” *SN Computer Science*, vol. 3, no. 5, pp. 1-9, 2022
12. A. K. Mishra, **E. S. Pilli**, and M. C. Govil, “CONTAIN4n6: A Forensics Architecture for Container Environment,” *Journal of Cloud Computing*, vol. 11, no. 1, Article No 28, 2022
13. A. Choudhary, M. C. Govil, G. Singh, L. K. Awasthi, **E. S. Pilli**, “Energy-Aware Scientific Workflow Scheduling in Cloud Environment,” *Cluster Computing*, vol. 25, no. 6, pp. 3845-3874 2022.
14. P. Mishra, A. Gupta, P. Aggarwal, **E. S. Pilli**, “vServiceInspector: Introspection-Assisted Evolutionary Bag-of-ngram Approach to Detect Malware in Cloud Server,” *Adhoc Networks*, vol. 131, Article No. 394, 2022
15. A. K. Mishra, M. C. Govil, **E. S. Pilli**, and A. Bijalwan, “Digital Forensic Investigation of Healthcare Data in Cloud Computing Environment,” *Journal of Healthcare Engineering*, vol. 2022, pp. 1-11, Article ID 9709101.

16. S. S. Chauhan, **E. S. Pilli**, and R. C. Joshi, "BGSA: Broker Guided Service Allocation in Federated Cloud," *Sustainable Computing: Informatics and Systems*, vol. 32, pp. 1-11, 2021
17. T. Chawla, G. Singh, **E. S. Pilli**, "MuSe - A Multi-Level Storage Scheme for Big RDF Data Using MapReduce," in *Journal of Big Data*, vol. 8, no. 1, pp. 1-26, 2021.
18. M. Choudhary, S. S. Chouhan, **E. S. Pilli** and S. K. Vipparthi, "BerConvoNet: A Deep Learning Framework for Fake News Classification," *Applied Soft Computing*, vol. 110, Article No, 107614, 2021
19. P. K. Keserwani, M. C. Govil, and **E. S. Pilli**, "An Optimal NIDS for VCN using Feature Selection and Deep Learning Technique," *Int'l Journal of Digital Crime and Forensics (IJDCF)*, vol. 13, no. 6, pp. 1-25, 2021
20. S. S. Chauhan, **E. S. Pilli**, R. C. Joshi, G. Singh, and M. C. Govil, "BSS: A Brokering Model for Service Selection using Integrated Weighting approach in Federated Cloud," *Journal of Cloud Computing*, vol. 10, no. 1, pp. 1-14, 2021.
21. P. K. Keserwani, M. C. Govil, and **E. S. Pilli**, "A smart anomaly-based Intrusion Detection System for the Internet of Things (IoT) Network using GWO-PSO-RF Model," *Journal of Reliable Intelligent Environments*, vol. 7, no. 1, pp. 3-21, 2021
22. T. Chawla, G. Singh, **E. S. Pilli**, M. C. Govil, "Storage, Partitioning, Indexing and Retrieval in Big RDF Frameworks: A Survey," *Computer Science Review*, vol. 38, pp. 1-41, 2020
23. P. Mishra, V. Varadharajan, **E. S. Pilli**, and U. Tupakula, "VMGuard: A VMI-based Security Architecture for Intrusion Detection in Cloud Environment," *IEEE Transactions on Cloud Computing*, vol. 8, no. 3, pp. 957-971, 2020.
24. P. K. Keserwani, M. C. Govil, and **E. S. Pilli**, "An Optimal Intrusion Detection System using GWO-CSA-DSAE Model," *Cyber-Physical Systems*, vol. 2020, pp 1-24, 2020
25. A. Sharma, **E. S. Pilli**, A. P. Mazumdar, and P. Gera, "Towards Trustworthy Internet of Things: A Survey on Trust Management Applications and Schemes", *Computer Communications*, vol. 160, pp 475-493, 2020
26. M. Singh, M. C. Govil, **E. S. Pilli**, S. K. Vipparthi, "SOD-CED: Salient Object Detection for Noisy Images using Convolutional Encoder Decoder," *IET Comp. Vision*, vol. 13, no. 6, pp. 578-587, 2019.
27. S. S. Chauhan, **E. S. Pilli**, R. C. Joshi, G. Singh, M. C. Govil, "Brokering in Interconnected Cloud Computing Environments: A Survey," *Journal of Parallel and Dist. Comp*, vol. 133, pp. 193-209, 2019.
28. P. Mishra, V. Varadharajan, **E. S. Pilli**, and U. Tupakula, "Detailed Investigation and Analysis of using Machine Learning Techniques for Intrusion Detection," *IEEE Communication Surveys and Tutorials*, vol. 21, no. 1, pp. 686-728, 2019
29. A. Choudhary, M. C. Govil, G. Singh, L. K. Awasthi, **E. S. Pilli**, "Energy efficient fuzzy based approach for dynamic virtual machine consolidation," *International Journal of Grid and Utility Computing*, vol. 10, no. 4, pp. 308-325, 2019.
30. M. Singh, M. C. Govil, **E. S. Pilli**, "CHACT: Convex Hull enabled Active Contour Technique for Salient Object Detection," *IEEE Access*, vol. 6, pp. 22441-22451, 2018.
31. T. Goyal, R. Rathi, V. K. Jain, **E. S. Pilli** and A. P. Mazumdar, "Big Data Handling Over Cloud for Internet of Things," *International Journal of Information Technology and Web Engineering (IJITWE)*, vol. 13, no. 2, pp. 37-47, 2018.
32. A. Choudhary, M. C. Govil, G. Singh, L. K. Awasthi, **E. S. Pilli**, D. Kapil, "A Critical Survey of Live Virtual Machine Migration Techniques," *Journal of Cloud Computing*, vol. 6, no. 23, pp. 1-41, 2017.
33. P. Mishra, **E. S. Pilli**, V. Varadharajan, and U. Tupakula, "VAED: VMI Assisted Evasion Detection Approach for Intrusion Detection for Cloud Environment," *Concurrency and Computation: Practice and Experience*, vol. 29, no. 12, 2017
34. P. Mishra, **E. S. Pilli**, V. Varadharajan, and U. Tupakula, "Intrusion Detection Techniques in Cloud Environment: A Survey," *Journal of Network and Computer Applications*, vol. 77, pp. 18-47, 2017
35. P. Mishra, **E. S. Pilli**, V. Varadharajan, and U. Tupakula, "PSI-NetVisor: Program semantic aware intrusion detection at network and hypervisor layer in cloud," *Journal of Intelligent & Fuzzy Systems*, vol. 32, no. 4, pp. 2909-2921, 2017.
36. **E. S. Pilli**, R. C. Joshi, and R. Niyogi, "Network forensic frameworks: Survey and research challenges," *Digital Investigation*, vol. 7, no. 1, pp. 14-27, 2010.

PAPERS COMMUNICATED TO INTERNATIONAL JOURNALS

1. A. K. Prajapati, **E. S. Pilli**, R. B. Battula, V. Varadharajan, A. Verma, and R. C. Joshi, "A Comprehensive Survey on RPL Routing-based Attacks, Defenses and Future Directions in Internet of Things," *Computer and Electrical Engineering* (Under Review) – Manuscript ID: COMPELECENG-D-24-06615.
2. L. Sadineni, **E. S. Pilli**, R. B. Battula, and S. Rudrakar, "FGL-IoT: Federated Graph Learning based Internet of Things Forensics," *IEEE Internet of Things Journal* (Under Review) – Manuscript ID: IoT-40085-2024.
3. D. Chavala, R. B. Battula, A. K. Prajapati, **E. S. Pilli**, P. Subbarao, "DEFT: An efficient GAN-based multi-class Intrusion Detection System using Federated Transfer Learning," *Ad Hoc Networks* (Under Review) – Manuscript ID: ADHOC-D-24-01656.

SELECTED PAPERS PUBLISHED IN INTERNATIONAL CONFERENCES

1. A. Jain and **E. S. Pilli**, "LibMultiSig – a Multisignature Transaction Library for Bitcoin," *International Conference on Intelligent Systems and Security (ICISS 2024)*, Shibpur, India, 2024.
2. A. K. Prajapati, **E. S. Pilli**, R. B. Battula, and K. P. Singh, "Securing RPL-Based IoT Networks: A Hyperparameter based Deep Learning Approach for Intrusion Detection," *2024 International Symposium on Networks, Computers and Communications (ISNCC-2024)*, 2024 (Accepted)
3. K. P. Singh, **E. S. Pilli** and V. Laxmi, "Honeypot-Based Data Collection for Dark Web Investigation using Tor Network," *20th IFIP WG 11.9 International Conference on Digital Forensics (ICDF 2024)*, New Delhi, India, 2023 (Accepted)
4. A. Jain and **E. S. Pilli**, "SoK: Digital signatures and Taproot transactions in Bitcoin." *19th Int'l Conference on Information Systems Security (ICISS 2023)*. Raipur, India, 2023, pp. 360-379
5. M. Choudhary, S. S. Chouhan, **E. S. Pilli**, and N. Singh, "MSPIS: Multimodal Suspicious Profile Identification System in Online Social Network," *10th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2023)*, Kolkata, India, 2023, pp. 621-628.
6. A. K. Prajapati, **E. S. Pilli**, R. B. Battula, and A. Verma, "Defense Solution to Secure Low-Power and Lossy Networks Against DAO Insider Attacks," *2023 IEEE Region 10 Conference (TenCon)*, Chiang Mai, Thailand, 2023, pp. 261-266
7. S. C. Kumain, M. Singh, M. C. Govil, **E. S. Pilli**, "An Efficient Salt and Pepper Noise Reduction Approach for Video(s) Using Optimized Filter Approach," *2nd Int'l Conference on Emerging Frontiers in Electrical and Electronic Technologies (ICEFEET)*, Patna, India, 2022, pp. 1-6.
8. V. Agarwal, P. Mishra, S. Kumar, **E. S. Pilli**, "A Review on Attack and Security Tools at Network Layer of IoT," *Optical and Wireless Technologies*, Jaipur, India, 2022, pp. 497-506.
9. G. Sharma, A. M. Joshi, and **E. S. Pilli**, "An Automated MDD Detection System Based on Machine Learning Methods in Smart Connected Healthcare," *2021 IEEE International Symposium on Smart Electronic Systems (iSES)(Formerly iNiS)*, Jaipur, India, 2021, pp. 27-32.
10. M. Choudhary, S. S. Chouhan, and **E. S. Pilli**, "CbPIS: Cyberbullying Profile Identification System with Users in Loop", *13th International Conference on Contemporary Computing (IC3)*, Noida, India, 2021, pp. 203-208.
11. L. Sadineni, **E. S. Pilli** and R. B. Battula, "Ready-IoT: a Novel Forensic Readiness Model for Internet of Things," *IEEE 7th World Forum on Internet of Things (WF-IoT)*, New Orleans, Louisiana, USA, 2021, pp. 89-94.
12. P. Mishra, S. Kumar, U. Garg, **E. S. Pilli**, and R. C. Joshi, "Security Perspectives of Various IoT Cloud Platforms: A Review & Case Study," in *2021 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS)*, Greater Noida, India, 2021, pp. 727-731.
13. P. K. Keserwani, V. Jha, M. C. Govil, and **E. S. Pilli**, "Clickedroid: A Methodology Based on Heuristic Approach to Detect Mobile Ad-Click Frauds," *International Conference on Paradigms of Computing, Communication and Data Sciences: PCCDS 2020*, Kurukshetra, India, pp. 853-864.
14. P. K. Keserwani, M. C. Govil, and **E. S. Pilli**, "Evidence Building for Ad Click or Web Access on Cloud," in *International Conference on Machine Learning, Image Processing, Network Security and Data Sciences (MIND 2020)*, *Communications in Computer and Information Science, vol 1241*. Springer, Singapore, pp. 486-500.

15. A. K. Mishra, **E. S. Pilli**, and M. C. Govil, "A Taxonomy of Hypervisor Forensic Tools," in *Advances in Digital Forensics XVI*, G. Peterson and S. Shenoi, Eds. Cham: Springer International Publishing, 2020, pp. 181-199.
16. P. Mishra, A. Negi, **E. S. Pilli**, R. C. Joshi, "VMProtector: Malign Process Detection for Protecting Virtual Machines in Cloud Environment," in M. Singh, P. Gupta, V. Tyagi, J. Flusser, T. Ören, R. Kashyap, Eds., *Advances in Computing and Data Sciences, Communications in Computer and Information Science*, vol 1045, Singapore, Springer, 2019, pp. 360-369
17. H. Godara, M. C. Govil, **E. S. Pilli**, "Performance Evaluation of Tree Ensemble Classification Models Towards Challenges of Big Data Analytics," in A. Somani, S. Ramakrishna, A. Chaudhary, C. Choudhary, B. Agarwal, Eds., *Emerging Technologies in Computer Engineering: Microservices in Big Data Analytics, Communications in Computer and Information Science*, vol 985, Singapore, Springer, 2019, pp. 141-154.
18. A. Sharma, **E. S. Pilli**, A. P. Mazumdar, "RraR: Robust Recommendation Aggregation Using Retraining in Internet of Things," *IEEE 5th World Forum on Internet of Things (WF-IoT)*, Limerick, Ireland, 2019, pp. 76-80.
19. L. Sadineni, **E. S. Pilli** and R. B. Battula, "HFM-IoT: A Holistic Forensic Model for Internet of Things," in G. Peterson and S. Shenoi, Eds., *Advances in Digital Forensics XV, IFIP Advances in Information and Communication Technology*, vol 569, Cham, Springer, 2019, pp. 3-18.
20. T. Chawla, G. Singh, **E. S. Pilli**, "HyPSo: Hybrid Partitioning for Big RDF Storage and Query Processing," in *ACM India Joint International Conference on Data Sciences and Management of Data (CoDS-COMAD) (6th ACM iKDD CoDS and 24th COMAD)*, Kolkata, India, 2019, pp. 188-194
21. S. S. Chauhan, **E. S. Pilli**, R. C. Joshi, and G. Singh, "UPB: User Preference based Brokering for Service Ranking and Selection in Federated Cloud," in *2018 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)*, Indore, India, 2018, pp. 1-6.
22. M. Singh, M. C. Govil and **E. S. Pilli**, "V-SIN: Visual Saliency detection in noisy Images using convolutional neural Network," *Conference on Information and Communication Technology (CICT)*, Jabalpur, India, 2018, pp. 1-6.
23. M. Singh, M. C. Govil and **E. S. Pilli**, "SOD-CHIEF: Salient Object Detection using Convex Hull with multi-scale Energy Functions," *Conference on Information and Communication Technology (CICT)*, Jabalpur, India, 2018, pp. 1-6.
24. V. K. Asati, **E. S. Pilli**, S. K. Vipparthi, S. Garg, S. Singhal and S. Pancholi, "RMDD: Cross Layer Attack in Internet of Things," *International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, Bangalore, India, 2018, pp. 172-178.
25. A. Choudhary, M. C. Govil, G. Singh, L. K. Awasthi and **E. S. Pilli**, "Task Clustering-Based Energy-Aware Workflow Scheduling in Cloud Environment," *IEEE 20th International Conference on High Performance Computing and Communications; IEEE 16th International Conference on Smart City; IEEE 4th International Conference on Data Science and Systems (HPCC/SmartCity/DSS)*, Exeter, United Kingdom, 2018, pp. 968-973.
26. P. Hiranandani, **E. S. Pilli**, N. Chand, C. Ramakrishna and M. Gupta, "Big Data Analytics Using Multi-Classifer Approach with Rhadoop," *8th International Conference on Cloud Computing, Data Science & Engineering (Confluence)*, Noida, India, 2018, pp. 478-484.
27. A. K. Mishra, **E. Pilli**, and M. Govil, "A taxonomy of cloud endpoint forensic tools," in *Advances in Digital Forensics XIV*, G. Peterson and S. Shenoi, Eds. Cham: Springer International Publishing, 2018, pp. 243–261.
28. D. Mittal, **E. S. Pilli** and M. Gupta, "Efficient entity resolution using multiple blocking keys for bibliographic dataset," *International Conference on Intelligent Communication and Computational Techniques (ICCT)*, Jaipur, India 2017, pp. 108-113.
29. A. Sharma, **E. S. Pilli** and A. P. Mazumdar, "Obviating capricious behavior in internet of things," *International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, Udupi, India 2017, pp. 480-486.
30. T. Chawla, G. Singh and **E. S. Pilli**, "A shortest path approach to SPARQL chain query optimisation," *2017 International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, Udupi, India, 2017, pp. 1778-1778.
31. A. Kashyap, G. S. Kumar, S. Jangir, **E. S. Pilli** and P. Mishra, "IHIDS: Introspection-based hybrid intrusion detection system in cloud environment," *International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, Udupi, India, 2017, pp. 687-693.

32. M. K. Gokhroo, M. C. Govil, and **E. S. Pilli**, "Detecting and mitigating faults in cloud computing environment," *2017 3rd International Conference on Computational Intelligence & Communication Technology (CICT)*, Ghaziabad, India, 2017, pp. 1-9.
33. P. Mishra, **E. S. Pilli**, V. Varadharajan, and U. Tupakula, "Out-VM Monitoring for Malicious Network Packet Detection in Cloud," *First ISEA Asia Security and Privacy Conference*, Surat, India, January 2017, 1-10.
34. P. Mishra, **E. S. Pilli**, V. Varadharajan, and U. Tupakula, "Securing Virtual Machines from Anomalies Using Program-Behavior Analysis in Cloud Environment," *18th Int'l Conference on High Performance Computing and Comm. (HPCC)*, Sydney, Australia, 2016, pp. 991-998.
35. R. Grover, C. R. Krishna, A. K. Mishra, **E. S. Pilli**, and M. C. Govil, "A Comparison of Analysis Approaches for Cloud Forensics," *International Conference on Cloud Computing in Emerging Markets (CCEM)*, Bangalore, India, 2016, pp. 131-135.
36. A. Choudhary, M. C. Govil, G. Singh, L. K. Awasthi, **E. S. Pilli**, and N. Kumar, "Improved Virtual Machine Migration Approaches in Cloud Environment," *International Conference on Cloud Computing in Emerging Markets (CCEM)*, Bangalore, India, 2016, pp. 17-24.
37. P. Mishra, **E. S. Pilli**, V. Varadharajan, and U. Tupakula, "NvCloudIDS: A security architecture to detect intrusions at network and virtualization layer in cloud environment," *International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, Jaipur, India, 2016, pp. 56-62.
38. N. Kumar, M. Singh, M. C. Govil, **E. S. Pilli**, and A. Jaiswal, "Salient Object Detection in Noisy Images," *Canadian Conference on Artificial Intelligence*, Victoria, Canada, 2016, pp. 109-114.
39. N. Chand, P. Mishra, C. Ramakrishna, **E. S. Pilli** and M. C. Govil, "A Comparative Analysis of SVM and its Stacking with other Classification Algorithm for Intrusion Detection," *International Conference on Advances in Computing, Communication & Automation (ICACCA)*, Dehradun, India, 2016, pp. 1-6.
40. R. Sharma, P. Sharma, P. Mishra, and **E. S. Pilli**, "Towards MapReduce Based Classification Approaches for Intrusion Detection," *Sixth International Conf. on Cloud System and Big Data Engineering (Confluence)*, Noida, India, 2016, pp. 361-367.
41. A. Sharma, T. Goyal, **E. S. Pilli**, A. P. Mazumdar, M. C. Govil, R. C. Joshi, "A Secure Hybrid Cloud Enabled Architecture for Internet of Things," *2nd World Forum on Internet of Things (WF-IoT)*, Milan, Italy, 2015, pp. 274 – 279.
42. P. Sharma, R. Sharma, **E. S. Pilli**, and A. K. Mishra, "A Detection Algorithm for DoS Attack in the Cloud Environment," *8th Annual ACM India Conference (Compute 2015)*, Ghaziabad, India, 2015, pp. 107-110.
43. S. Jain, **E. S. Pilli**, M. C. Govil, D. V. Rao, "Performance Evaluation of Congestion-Aware Routing Protocols for Underwater Sensor Networks with Multimedia Data", *International Symposium on Underwater Technology (UT 15)*, Chennai, India, Feb. 2015, pp. 1-6.
44. V. Goyal, A. Agarwal, **E. S. Pilli** and S. Mehta, "Information Integration for Movies Data Using Graph Database," *International Conference on Signal Processing, Informatics, Communication and Energy Systems (IEEE SPICES)*, Calicut, India, February 2015, pp. 1-5.
45. A. K. Mishra, **E. S. Pilli** and M. C. Govil, "A Prototype Implementation of Log Acquisition in Private Cloud Environment," *International Conference on Eco-friendly Computing and Communication Systems (ICECCS 2014)*, Surathkal, India, Dec. 2014, pp. 223 - 228.
46. S. Gupta, **E. S. Pilli**, P. Mishra, S. Pundir, and R. C. Joshi, "Forensic Analysis of E-mail Address Spoofing," *Fifth International Conference on Cloud Security and Big Data (Confluence 2014)*, Noida, India, Sept 2014, pp. 898 – 904.
47. D. S. Rathore, D. Bordoloi, **E. S. Pilli**, and M. C. Govil, "Levelsync: A Hierarchical Time Synchronization Mechanism for Wireless Sensor Networks," *7th International Conf. on Contemporary Computing (IC3-2014)*, Noida, India, August 2014, pp. 276-282.
48. P. Tyagi, D. Kapil, **E. S. Pilli** and R. C. Joshi, "Virtual Machine Portability- A Novel Approach," *International Conference on Cloud Computing and Big Data (CloudCom-Asia 2013)*, Fuzhou, China, December 2013, pp. 240-245.
49. H. Chauhan, V. Kumar, S. Pundir, and **E. S. Pilli**, "A Comparative Study of Classification Techniques for Intrusion Detection," *International Symp. on Computational and Business Intelligence (ISCBI)*, August 2013, pp. 40-43.

50. A. Kumar, **E. S. Pilli**, and R. C. Joshi, "An efficient framework for resource allocation in cloud computing," *4th International Conference on Computing, Communications and Networking Technologies (ICCCNT)*, July 2013, pp. 1-6.
51. H. Chauhan, V. Kumar, S. Pundir, and **E. S. Pilli**, "Comparative Analysis and Research Issues in Classification Techniques for Intrusion Detection," *International Conference on Advanced Computing, Networking, and Informatics*, Raipur, India, June 2013, pp. 675-685.
52. D. Kapil, **E. S. Pilli**, and R. C. Joshi, "Live virtual machine migration techniques: Survey and research challenges," *3rd International Advance Computing Conference (IACC)*, Ghaziabad, India, Feb. 2013, pp. 963-969.
53. B. Priya, **E. S. Pilli**, and R. C. Joshi, "A survey on energy and power consumption models for Greener Cloud," *3rd International Advance Computing Conference (IACC)*, Ghaziabad, India, Feb. 2013, pp. 76-82.
54. A. K. Mishra, P. Matta, **E. S. Pilli**, and R. C. Joshi, "Cloud forensics: state-of-the-art and research challenges," *International Symposium on Cloud and Services Computing (ISCOS)*, Surathkal, India, Dec. 2012, pp. 164-170.
55. A. Kumar and **E. S. Pilli**, "University wide M-learning using cloud environment," *International Symposium on Cloud and Services Computing (ISCOS)*, Surathkal, India, Dec. 2012, pp. 118-123.
56. P. Mishra, **E. S. Pilli**, and R. C. Joshi, "Forensic Analysis of E-mail Date and Time Spoofing," *3rd International Conference on Computer and Communication Technology (ICCCT)*, Allahabad, India, Nov. 2012, pp. 309-314.
57. **E. Pilli**, R. Joshi, and R. Niyogi, "Router and Interface Marking for Network Forensics," *Advances in Digital Forensics VII*: Springer, Feb. 2011, pp. 209-220.
58. **E. S. Pilli**, R. C. Joshi, and R. Niyogi, "An IP traceback model for network forensics," *Digital Forensics and Cyber Crime*: Springer, 2011, pp. 129-136.
59. **E. S. Pilli**, R. C. Joshi, and R. Niyogi, "A framework for network forensic analysis," *Information and Communication Technologies*: Springer, 2010, pp. 142-147.
60. A. K. Kaushik, **E. S. Pilli**, and R. C. Joshi, "Network forensic analysis by correlation of attacks with network attributes," *Information and Communication Technologies*, Kochi, India, September 2010, pp. 124-128.
61. A. K. Kaushik, **E. S. Pilli**, and R. C. Joshi, "Network forensic system for port scanning attack," *2nd International Advance Computing Conference (IACC)*, Patiala, India, Feb. 2010, pp. 310-315.

RESEARCH COLLABORATIONS

- Prof. Vijay Varadharajan, Global Innovation Chair in Cybersecurity, School of Information and Physical Sciences, University of Newcastle, Callaghan, Australia
- Prof. Kim-Kwang Raymond Choo, Cloud Technology Endowed Professor, University of Texas at San Antonio, United States

SERVICE TO RESEARCH COMMUNITY

Editorial Board

- Forensic Science International: Digital Investigation (Elsevier)

Reviewer – International Journals

- IEEE Transactions on Information Forensics and Security
- IEEE Transactions on Cloud Computing
- IEEE Systems Journal
- IEEE Access
- ACM Computing Surveys
- Elsevier Computer Networks
- Elsevier Adhoc Networks
- Elsevier Future Generation Computer Systems
- Elsevier Journal of Network and Computer Applications

CONFERENCES / WORKSHOPS ORGANISED

1. Joint Principal Coordinator of Winter Online FDP on *Blockchain Technology and Applications* under aegis of E & ICT Academy from Jan 3-8, 2022 and facilitated 850+ participants across India.
2. Principal Coordinator of Autumn FDP on *Quantum Computing (in partnership with IBM India)* under aegis of E & ICT Academy from Sept 27 – Oct 8, 2021 and facilitated 150+ participants across India.
3. Principal Coordinator of Autumn FDP on *Quantum Computing (in partnership with Microsoft)* under aegis of E & ICT Academy from August 24-29, 2020 and facilitated 300+ participants.
4. Principal Coordinator of Winter FDP on *Python Programming – An Industry Perspective* (in partnership with IBM) under aegis of E & ICT Academy from Dec 2 - 6, 2019 and coordinated 49 Remote Centers and 1800+ participants across India.
5. Principal Coordinator, EICT Global Summer Faculty Development Programme on *Network Security* at Malaviya National Institute of Technology, Jaipur, May 20 - 24, 2019 and coordinated 20 Remote Centers and 600 participants across India
6. Coordinator, MNIT EICT Academy sponsored One-week Faculty Development Programme on “*Big Data Analytics*” at LNM Institute of Information Technology, Jaipur, on March 17-21, 2018
7. Coordinator, GIAN International Summer Course on “*Advanced Data and Web Analytics*” at Malaviya National Institute of Technology, Jaipur from December 16-20, 2017
8. Coordinator, MNIT EICT Academy sponsored Two-week Faculty Development Programme on *Object Oriented Programming* at MNIT Jaipur, November 20-29, 2017
9. Coordinator, MNIT EICT Academy & NVIDIA sponsored Two Day Faculty Development Programme on *Deep Learning on Parallel Architectures* at Malaviya National Institute of Technology, Jaipur, October 26 – 27, 2017
10. Coordinator, MNIT EICT Academy sponsored Five Day Faculty Development Programme on *Parallel Computing* at Malaviya National Institute of Technology, Jaipur, Sept 28 – Oct 2, 2017
11. Coordinator, MNIT EICT Academy sponsored Two week Faculty Development Programme on *Introduction to Data Structures and Programming in C* at Malaviya National Institute of Technology, Jaipur, July 1-10, 2017
12. Coordinator, MNIT EICT Academy sponsored Two week Faculty Development Programme on *Fundamentals of Computer Networks and Security* at Malaviya National Institute of Technology, Jaipur, May 24 to June 3, 2017
13. Coordinator, MNIT EICT Academy sponsored Five Day Faculty Development Programme on *Parallel Computing* at Malaviya National Institute of Technology, Jaipur, April 8 – 12, 2016
14. Coordinator, Three-day workshop on *Parallel (MPI, OpenMP and POSIX) and GPU (CUDA and OpenCL) Computing* at Malaviya National Institute of Technology, Jaipur, Oct 31 – Nov 2, 2015
15. Coordinator, Intel sponsored Two day workshop on *Code Modernization and Parallel Computing* at Malaviya National Institute of Technology, Jaipur, August 25-26, 2015
16. Coordinator, TEQIP sponsored Two day workshop on *Parallel (CUDA) and Heterogeneous (OpenCL) Computing* at Malaviya National Institute of Technology, Jaipur, Nov 10 – 11, 2014
17. Coordinator, TEQIP sponsored Two Day Workshop on *Application of Wireless Sensor Networks for Disaster Management* at Malaviya National Institute of Technology Jaipur, June 17 – 18, 2014
18. Coordinator, TEQIP sponsored Five Day National Workshop on *Challenges in BIG Data Research* at Malaviya National Institute of Technology, Jaipur, November 9 – 13, 2013
19. Coordinator, Uttarakhand Council for Science and Technology (UCOST) sponsored Two Day Faculty Development Workshop on *Wireless Sensor Networks* at Graphic Era University, Dehradun, August 4 – 5, 2012
20. Coordinator, *One Day Workshop on OpenNebula* (Cloud Computing Software) at Graphic Era University, Dehradun, March 27, 2012
21. Resource Person and Coordinator, Two Day Workshop on *Network Simulator ns-2* at Graphic Era University, Dehradun, February 25 – 26, 2012
22. Student Coordinator, Two Day *Formal Methods Update Meeting* organized by Formal Methods India (FMI) at Indian Institute of Technology, Roorkee, June 13 – 15, 2009
23. Coordinator, *Two Day IBM Workshop on UML using Rational Rose* at College of Engineering (COER) Roorkee, February 23 – 24, 2007
24. Coordinator, Two Day *IBM Certification Course on OOAD using UML with Fundamentals of Rational Rose* at Guru Nanak Engineering College, Hyderabad, December 8 – 9, 2005

25. Convener, *TechnoFest 2005*, State Level Students Technical Paper Contest at Guru Nanak Engineering College, Hyderabad, 2005
26. Coordinator, Seven Day Workshop on *Embedded Systems* at Guru Nanak Engineering College, Hyderabad, November 29 to December 4, 2004

CONFERENCES / WORKSHOPS ATTENDED

1. Two Day Twentieth Annual IFIP WG 11.9 International Conference on Digital Forensics, New Delhi, India, January 4-5, 2024
2. Two Day Research and Development Conclave 2023 at National Institute of Technology, Warangal, India, Dec 15-16, 2023
3. Two Day 25th All India Forensic Science Conference (AIFSC-2023) at National Forensic Sciences University, Gandhinagar, India, Feb 2-3, 2023
4. One Week ACM India Winter School on Quantum Computing at Indian Institute of Technology Madras, Chennai, India, Dec 5-16, 2022
5. Two weeks Seventh IEEE World Forum on Internet of Things (WF-IoT), Hybrid Conference at New Orleans, Louisiana, USA, July 12-24, 2021.
6. Two Day Seventeenth Annual IFIP WG 11.9 International Conference on Digital Forensics, Virtual Meeting, February 1-2, 2021
7. Two Day MHRD Innovation Council Ambassadors Training, Phagwara, India, Jan 16-17, 2020
8. Three Day Sixteenth Annual IFIP WG 11.9 International Conference on Digital Forensics, New Delhi, India, January 6-8, 2020
9. Three Day ACM Compute 2019 Annual Conference with IEEE ACM Computing Curricula 2020 Workshop at International Center Goa from October 10-11, 2019
10. Four Day Online Child Sexual Exploitation Investigations Training Course organized by Sardar Patel Global Centre for Security, Counter Terrorism & Anti Insurgency (GCCT), at Rajasthan Police Academy, Jaipur, from June 3-6, 2019.
11. Two Day Curriculum Development Workshop for UG and PG Programmes of National Institute of Technology, Sikkim, from May 29-30, 2019
12. Two Day Curriculum Development Workshop for UG and PG Programmes of National Institute of Technology, Uttarakhand, from May 17-18, 2019
13. Two Day Fourth Annual Appraisal Workshop of Information Security Education and Awareness Project Phase II, at IIT Bombay, April 22-23, 2019
14. Three Day 2018 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS), Indore, India, December 17-19, 2018
15. Three Day National Conference of Directors of Computer Centers in Higher Educational Institutions, Benaras Hindu University, Varanasi, India, November 15-17, 2018
16. Two Day Forty Sixth All India Police Science Congress, Shimla, India, April 22-23, 2018
17. Three Day Fourteenth Annual IFIP WG 11.9 International Conference on Digital Forensics, New Delhi, India, January 3-5, 2018
18. One Week GIAN International Summer Course on “Incident Response and Forensics” at Malaviya National Institute of Technology, Jaipur from December 11-15, 2017
19. Two Day Tenth International Information Security Conference (c0c0n 2017) at Kochi from August 18-19, 2017.
20. Three Day First IEEE ISEA Asia Security and Privacy Conference at NIT Surat, India from Jan 30 to Feb 1, 2017.
21. One Week GIAN International Summer Course on “Advanced Systems Security: Attacks and Defenses” at Malaviya National Institute of Technology, Jaipur from July 4-10, 2016
22. Two Day Cisco Security Conclave at New Delhi from April 6-7, 2016.
23. Three Day Twelfth Annual IFIP WG 11.9 International Conference on Digital Forensics, at New Delhi from January 4-6, 2016
24. One Day Cloud in India Workshop organized by Cloud Computing Innovation Council of India (CCICI) at CDAC Bangalore on April 29, 2015
25. One Week National Workshop on Nature Inspired Computing and Applications (NICA 2015) at Malaviya National Institute of Technology, Jaipur from April 2-6, 2015
26. Three Day FICCI Higher Education Summit at Federation House, Delhi from Nov 13-14, 2014.

27. Two Day Software Defined Networking Summit 2014 at Hewlett Packard STSD R&D Center, Bangalore from October 9-10, 2014
28. Two Day Curriculum Development Workshop for Undergraduate Programme of Indian Institute of information Technology, Kota, Rajasthan from July 2-3, 2014
29. Three Day Faculty Residency Prog. on Cyber Security at IBM Bangalore from June 4-6, 2014
30. Five Day Advanced Teaching Pedagogy at National Institute of Technical Teachers Training and Research, Chandigarh from May 19-23, 2014
31. Five Day Faculty Development Programme on Entrepreneurship Development at Entrepreneurship Development Institute of India, Ahmedabad from April 14-18, 2014
32. Five Day Technology Workshop on Architecture, Algorithms, Analytics for Big Data using Cloud and Distributed Computing at NIT, Warangal from March 07-11, 2014
33. Two Day IBM Research Digital Learning Workshop at Institute for Studies in Industrial Development, New Delhi from February 27-28, 2014
34. Three Day Second NKN Annual Workshop on "Enhancement of research collaborations through NKN" at Indian Institute of Science, Bangalore from October 17 – 19, 2013
35. One Week Faculty Development Program on Cloud Infrastructure Services at Amity University, Noida from May 7 – 11, 2012.
36. Three Day Academic Leaders (Deans and Principals) Workshop organized by Wipro Technologies Mission 10X at New Delhi, September 25 – 28, 2011
37. Two Week Microsoft Research India Summer School 2011 on Security and Privacy at the Indian Institute of Science, Bangalore, June 18 – 30, 2011
38. Three Day ACM Special Interest Group on Data Communication (SIGCOMM) 2010 Annual Conference in New Delhi, Aug. 30 – Sept. 2, 2010

INVITED TALKS

1. Invited Talk on "Machine Learning and Intrusion Detection System," in AICTE - ATAL Faculty Development Program at Shreeyash College Of Engineering & Technology, Aurangabad, on Nov 26, 2024
2. Invited Talk on "Research Terms and Defining a Technical Problem," Seven-Days Workshop on Scientific Research and Technical Writing Skills at Rajasthan Agricultural Research Institute, Sri Karan Narendra Agriculture University, Jaipur on Nov 26, 2024
3. Keynote on "Dark Web and The Onion Routing (Tor) Network," Third International Conference on Information Security, Privacy and Digital Forensics (ICISPD 2024), Goa, India, on Oct 19, 2024
4. Invited Talk on "Research Terms and Defining a Technical Problem," Faculty Induction Program (FIP) under UGC-Malaviya Mission Teacher Training Centres (MMTTCs), Central University of Jammu (J & K), on Sep 30, 2024
5. Keynote on "Security and Privacy in Blockchain," in 4th International Convention on Green Environment, Technology & Entrepreneurship through Innovation (ICGETEI 2024), at Amity University Jaipur, India, Sep 13, 2024
6. Invited Talk on "Machine Learning and Intrusion Detection System," Short-Term Course (in Hybrid Mode) on Research and Industry Trends in Data Science for Cyber Security (RITDC-2024), at NIT Kurukshetra, on Jun 10, 2024
7. Keynote on "Machine Learning and Big Data Analytics," in 4th International Conference on Machine Learning and Big Data Analytics (ICMLBDA)-2024, at National Institute of Technology Kurukshetra, on May 9, 2024
8. Keynote on "Machine Learning and Big Data Analytics," in 4th International Conference on Data Science & Engineering Applications (DSEA-2024) at Global Institute of Technology, Jaipur, India, on Apr 26, 2024
9. Keynote on "Dark Web and The Onion Routing Networks," in 3rd International Conference on Emerging Trends in Expert Application & Security (ICE-TEAS 2024) at JECRC, Jaipur, India, on Mar 15, 2024
10. Keynote on "Darkweb and The Onion Routing (Tor)," in International Conference on Automation and Computation (AutoCom-2024), at Graphic Era Hill University, Dehradun, India on Mar 14, 2024

11. Invited Talk on “Research Terms and Defining a Technical Problem,” in STTP on Research Methodologies and Scientific Writing using Latex (RMSRL-2024) at NIT Kurukshetra on Jan 8, 2024.
12. Invited Talk on “Investigating the Dark Web and Tor” in Second International Conference on Information Security, Privacy and Digital Forensics 2023 at National Forensic Sciences University, Ministry of Home Affairs, Gandhinagar, India on Dec 16, 2023
13. Invited Talk on “Security and Privacy in Blockchain” in One Week Online Faculty Development Programme on Recent Trends in Blockchain Enabled Internet of Things, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, India on Dec 7, 2023
14. Invited Talk on “ZigBSec: Enhancing Security in Zigbee Protocol” IEEE R10 Teacher In Service Programme on Application of IoT in Industrial Automation, Poornima College of Engineering, Jaipur, Oct 7, 2023
15. Invited Talk on “Multi-Disciplinary Research in Emerging Technologies,” International Conference on Interdisciplinary Fusion - Navigating the Future of Research at Apex University, Jaipur on Oct 7, 2023
16. Invited Talk on “Navigating the Dark Web: Insights, Challenges, and Investigation,” in 3rd International Convention on Green Environment, Technology & Entrepreneurship through Innovation (ICGETEI-2023) at Amity University Jaipur on August 12, 2023.
17. Invited Talk on “Sale and Purchase of Drugs on the TOR Browser: Forensics and Investigation,” in UNODC - International Day against Drug Abuse and Illicit Trafficking at National Forensic Sciences University Delhi (LNJN NICFS) on June 27, 2023.
18. Invited Talk on “Unveiling the Dark Web and TOR: Navigating the Depths of the Internet,” in Short Term Course (Blended Mode) On Emerging Technologies in Cloud, IoT, UAV and Satellite Networks (ETCIUS-2023) at NIT Kurukshetra on June 21, 2023.
19. Invited Talk on “Mobile Governance Standards,” in State Level Awareness Workshop on e-Governance Standards and Guidelines at C-DAC Pune and STQC New Delhi (organized in Jaipur) on March 04, 2023.
20. Invited Talk on “Cloud Security,” in FDP on Cloud Computing and Its Applications: Opportunities and Challenges at NIT Jalandhar on December 18, 2022.
21. Invited Talk on “Creating Quality Figures and Diagrams,” in Capacity Building Programme on ICT Tools for Teaching and Research at IIITDM Jabalpur on December 13, 2022.
22. Invited Talk on “Security and Privacy Issues in Blockchain,” in One Week SERB - Karyashala on lockchain Technology: Architecture Applications at Indian Institute of Information Technology Kota on Dec 01, 2022.
23. Invited Talk on “Security and Privacy in Blockchain,” and “Dark web and Tor,” in ISEA project phase-II at Dr. BR Ambedkar NIT Jalandhar, Punjab on November 07 and 10, 2022.
24. Invited Talk on “Security and Privacy in Blockchain,” in Faculty Development Program (FDP) on Security Aspects in Computer Science and its Applications (SACSA-2022) at Dr B R Ambedkar National Institute of Technology Jalandhar, Punjab on October 13, 2022.
25. Invited Talk on “Security Issues in Blockchain,” in IEEE Day at Sir Padampat Singhania University, Udaipur on October 11, 2022.
26. Invited Talk on “Security and Privacy in Blockchain,” in Faculty Development Program (FDP) on Cyber Security: Managing Risk in the Information Age at Department of Computer Science & Engineering, MNNIT Allahabad on October 18, 2022.
27. Keynote on “Security and Privacy in Blockchain,” in 10th International Conference on Innovations in Computer Science and Engineering (ICICSE-2022) at Guru Nanak Institutions Hyderabad, Telangana on September 16, 2022.
28. Invited Talk on “Cyber Security and Cyber Law,” in Faculty Development Program (FDP) at Centre for Cyber Security Sardar Patel University of Police, Security & Criminal Justice Jodhpur on September 13 - September 19, 2022.
29. Invited Talk on “Research Design and Process,” in five days online Faculty Development Programme (FDP) at Department of CSE, ABES Engineering College on August 22, 2022.
30. Invited Talk on “Writing a Survey Paper & Journal Metrics,” and “Creating quality figures using Dia and Xfig,” in Research Methodology & Authoring and Reviewing Manuscript, jointly organized online programme by EICT Academies- NITP, MNITJ, IIITDMJ, & IITR on August 01 and 03, 2022.

31. Keynote on “Security and Privacy in Blockchain,” in International Symposium on Securing Next-Generation Systems using Future Artificial Intelligence Technologies (SNSFAIT-2022) at Department of Computer Science & Engineering, Maharaja Agrasen Institute of Technology in association with IEEE ComSoc Delhi Chapter on July 29, 2022.
32. Invited Talk on “Cyber Security Technologies and Applications (CSTA-2022),” in two days’ workshop at ABV-IIITM Gwalior (ISEA-Phase-II project) on June 02, 2022.
33. Invited Talk on “Security and Privacy Issues in Blockchain,” in Five Days Online Faculty Development Programme (FDP) at Department of Computer Science & Engineering, NIT, Uttarakhand on March 02, 2022.
34. Invited Talk on “Research Terminologies and Reference Management Using Mendeley,” in seminar organized by the Technical Club Department of Computer Science at Doon University, Dehradun on February 4, 2022.
35. Invited Talk on “Security and Privacy Issues in Blockchain,” and “Atomic Swap between two Blockchains,” in AICTE-ATAL Faculty Development Program on Cyber Security at SRMIST, Ghaziabad, India on January 29 and 31, 2022.
36. Invited Talk on “Security & Privacy Issues in Blockchain,” in Two-week International Winter School on Cyber Security and Threat Intelligence at Cochin University of Science and Technology, Kochi on January 27, 2022.
37. Invited Talk on “Research Challenges in Quantum Computing,” in DRDO Sponsored One Week Workshop on Quantum Computing at IIIT Kota on January 25, 2022.
38. Invited Talk on “How to write a Research paper and the Things to keep in mind,” in seminar organized by ACM SIGBED Student Chapter at Manipal University Jaipur on January 23, 2022.
39. Invited Talk on “Data Analytics through Hadoop Ecosystem and NoSQL Databases,” in AICTE-Sponsored Five Day Faculty Development Program (Online) on Current Trends and Future Prospects in Data Science at Central University of Rajasthan, Kishangarh on January 10, 2022.
40. Invited Talk on “Security and Privacy Issues in Blockchain,” and “Atomic Swap between two Blockchains,” in Joint Online Programme on Blockchain Technologies and Applications at EICT Academy Jabalpur on January 07, 2022.
41. Invited Talk on “Security and Privacy in Blockchain,” in one-week online FDP on Information Security: Issues and Challenges (ISIC-2021) sponsored by ISEA-II at Department of Computer Science & Engineering, MNNIT Prayagraj on December 21, 2021.
42. Invited Talk on “Cloud Security” in AICTE-ATAL Faculty Development Program on Cyber Security: Challenges and Evolving Solutions, NIT Sikkim, India on December 8, 2021
43. Invited Talk on “Cloud Security and Forensics” in AICTE-ATAL Faculty Development Program on Cyber Security and Digital Forensics, IIIT Pune, India on December 7, 2021
44. Invited Talk on “Security and Privacy Issues in Blockchain and variants like Ethereum and Monero” in AICTE - ATAL Faculty Development Program on Cyber Security at SRM Institute of Management, Ghaziabad on October 29, 2021
45. Invited Talk on “Introduction to Cloud Forensics” and “Attribution in Cloud Forensics” in AICTE-ATAL Faculty Development Program on Cloud Forensics: Techniques, Challenges and Research Directions, NIT Sikkim, India on October 18 and 21, 2021
46. Invited Talk on “Security and Privacy Issues in Blockchain and variants like Ethereum and Monero” in AICTE - ATAL Faculty Development Program on Cyber Security at Sardar Patel University of Police, Security and Criminal Justice, Jodhpur on October 12, 2021
47. Invited Talk on “Elements of Game Theory, Crypto Currencies, Security Issues in Blockchain,” in one-week AICTE sponsored online Short-Term Training Program on Blockchain and its Applications at HRD Center, JNTU Hyderabad on October 5, 2021
48. Invited Talk on “Apache Hadoop Ecosystem” in AICTE-ATAL Faculty Development Program on "Data Science", Graphic Era University, Dehradun, India on October 4, 2021.
49. Invited Talk on “Cloud Security” in One-week AICTE Sponsored Online Faculty Development Programme on Information and Cyber Security at Guru Jambheshwar University of Science & Technology, Hisar, India on September 28, 2021.
50. Invited Talk on “Mobile Edge Computing” in AICTE-ATAL FDP on Fog and Edge Computing Challenges and Research Directions, NIT Sikkim, India on Sept 26, 2021.
51. Invited Talk on “Security and Privacy Issues in Blockchain and variants like Ethereum and Monero” in AICTE - ATAL Faculty Development Program on Blockchain Technology and its Applications at MNIT Jaipur on September 7, 2021

52. Invited Talk on “Security and Privacy Issues in Blockchain and variants like Ethereum and Monero” in AICTE - ATAL Faculty Development Program on Blockchain Technology and Cryptocurrency at NIT Arunachal Pradesh on August 26, 2021
53. Keynote address on “Blockchain Technologies” in Second International Conference on Advances in Computer Engineering and Communication Systems (ICACECS-2021), Hyderabad India on August 14, 2021.
54. Invited Talk on “Internet of Healthcare Things (IoHT)” in AICTE - ATAL Faculty Development Program on Internet of Things (Applications to Medical Science) at Govt Women’s Engineering College, Ajmer, India on August 10, 2021.
55. Invited Talk on “Creating Quality Figures using Dia and Xfig,” EICT Academy Online Programme on Digital Tools for Writing Authoring and Reviewing Manuscripts at NIT Patna, India on July 22, 2021
56. Invited Talk on “Intrusion Detection in Cloud” in AICTE - ATAL Faculty Development Program on Cyber Security Oversight for Information Protection at Cochin University of Science and Technology, Kochi, India on July 13, 2021.
57. Invited Talk on “Security and Privacy Issues in Blockchain and variants like Ethereum and Monero” in GUJCOST International Short Term Training Program at Institute of Technology, NIRMA University, Ahmedabad on July 13, 2021
58. Invited Talk on “Blockchain Security” in AICTE - ATAL Faculty Development Program on Cyber Security: A step towards Awareness to Cybercrime at Govt Engineering College, Ajmer, India on June 15, 2021.
59. Invited Talk on “Cloud Security” in AICTE-ISTE Sponsored one-week Online Refresher Programme on Mobile and Cloud Security: Challenges and Direction, AV Parekh Technical Institute, Rajkot, India on June 4, 2021.
60. Invited Talk on “Creating Quality Figures using Dia and Xfig,” EICT Academy Online Programme on ICT Tools for Teaching, Learning Process & Institutes, NIT Patna, India on March 25, 2021
61. Invited Talk on “BlockChain Security” in TEQIP III Faculty Development Program (FDP) on Modern Cryptography, Blockchain & IoT security: Challenges, Solutions and Future Prospects (MCB-IoTs) at UIT Rajiv Gandhi Prodhogiki Vishwavidhyalaya on March 23, 2021
62. Invited Talk on “Motivation for Big Data,” in AICTE Sponsored Short-Term Training Programme on Big Data Security at CoE Karunagappally, Kerala, on March 22, 2021
63. Invited Talk on “Blockchain Security” in MNNIT Faculty Development Program (FDP) on Information Security and Privacy (ISP-2021), Allahabad, India on March 12, 2021
64. Invited Talk on “Recent Techniques of Internet of Things and Big Data”, in NIT Uttarakhand TEQIP sponsored Five Days Online Short-Term Training Programme (STTP) on Next Generation Computing and Networking, Srinagar, India on March 12, 2021
65. Invited Talk on “Protocols and Devices for Internet of Things” in AICTE-ATAL Faculty Development Program on Emerging Trends on Internet of Things with Experimental Learning, NIT Sikkim, India on Feb 24, 2021
66. Invited Talk on “Blockchain, variants like Ethereum, Monero and its Applications” in sponsored online Short Term Training Program on “Real World Applications and Challenges in Internet of Things (IoT) and Blockchain Technologies”, SRM University, Amravati, India on Jan 22, 2020
67. Invited Talk on “Cloud Security” in AICTE Sponsored one-week STTP Programme under AQIS on Research Trends in Computer Science and Engineering, Dharwad, India on Dec 19, 2020.
68. Invited Talks on “Blockchain, variants like Ethereum, Monero and its Applications” and “IoT Trust Management, Health Care and use of Blockchain” in TEQIP-III sponsored online Short Term Training Program on Blockchain Technology and its Applications in Internet of Things, Surat, India on December 9, 2020
69. Invited Talk on “Cloud Security” in AICTE-ATAL Faculty Development Program on Cyber Security, Sikkim, India on December 2, 2020
70. Invited Talks on “Machine Learning Applications for Intrusion Detection” in TEQIP Phase-III Sponsored Five Day Online Short-Term Training Program on Applications of Machine Learning and Deep Learning Techniques in Multidisciplinary Area, Surathkal, India, November 19, 2020
71. Invited Talks on “Internet of Things” and “IoT Architectures and Devices” in Five Days AICTE Training And Learning (ATAL) Sponsored Faculty Development Programme on “IoT based Applied Engineering in Agriculture” Jaipur, India on October 12, 2020.

72. Invited Talk on “Cloud Security and Blockchain Technology,” in EICT Academy Online Faculty Development Programme on Cyber Security, Patna, India on October 10, 2020
73. Keynote Address in International Conference on Cybersecurity in Emerging Digital Era (ICCEDE2020) Greater Noida, India on October 9, 2020,
74. Invited Talks on “Cloud Computing and Virtualization” and “Blockchain Security” in Five Days AICTE Training And Learning (ATAL) Sponsored Faculty Development Programme on “Cyber Security” Jaipur, India on October 7 and 9, 2020.
75. Invited Talk on “Cloud Security” in RTU Kota TEQIP-III sponsored one-week FDP on Cyber Security & Cyber Forensic, Jaipur, India on Sept 24, 2020
76. Invited Talk on “Security in Blockchain” in TEQIP-III Sponsored Online STC on Security & Privacy Challenges in Computing Paradigms (SPCCP) at NIT Jalandhar, India on Sept 1, 2020.
77. Invited Talk on “Creating Quality Figures using Dia and Xfig,” in Online Programme on ICT Tools for Teaching, Learning Process & Institutes at EICT Academy Jaipur on August 20, 2020
78. Invited Talk on “Machine Learning Applications for Intrusion Detection”, in TEQIP-III Sponsored online STC on “Applications of Machine Learning in the Advancements of Computer Science” NIT Jalandhar, India on August 19, 2020.
79. Invited Talk on “Cloud Computing and Virtualization” in Online STC on Cloud of Things: Theoretical and Practical Implications, NIT Jalandhar, India on August 12, 2020.
80. Invited Talk on “AI uses in IoT”, in TEQIP sponsored Five Days Online Short-Term Training Programme (STTP) on Recent Advances in Artificial Intelligence, NIT Uttarakhand, India on July 28, 2020
81. Invited Talk on “Role of IoT for Combating COVID 19 Outbreak”, in NIT Uttarakhand TEQIP sponsored Five Days Online Short-Term Course (STC) on Technological Challenges & Opportunities in COVID-19 Outbreak, Jaipur, India on July 7, 2020
82. Invited Talk on “Introduction to Big Data and its Applications,” in ATAL Academy Sponsored Workshop on Data Science at IIIT Nagpur, India on May 25, 2020
83. Invited Talk on “Introduction to Big Data Analytics” and “Data Lakes”, in IIITDM EICT Academy sponsored One-week Faculty Development Programme on Introduction to Machine Learning and Data Engineering, SGSITS, Jabalpur India on Dec 21, 2019
84. Invited Talk on “Introduction to Blockchain and Security,” and “Introduction to IoT Security” in DST Sponsored Faculty Development Programme on “Cyber Security, Cryptanalysis and Security for Physical Infrastructure” at Guru Nanak Institutions Technical Campus, Hyderabad, India on December 18, 2019
85. Invited Talk on “Introduction to Big Data and its Applications,” and “Big Data Security and Privacy” in ATAL Academy Sponsored Workshop on Data Science at National Institute of Technology, Uttarakhand, India on October 17, 2019
86. Invited Talk on “Internet of Things – Introduction and Architecture” and “Internet of Robotic Things – Concept to Formalization,” in ATAL Academy Sponsored Workshop “Artificial Intelligence Applications in Internet of Things” at NIT Uttarakhand, on Sept 26, 2019
87. Invited Talk on “Digital Forensics” at Adikavi Nannaya University, Rajahmundry, India on July 29, 2019
88. Invited Talk on “Internet of Robotic Things – Concept to Formalization,” in ATAL Academy Sponsored Workshop on Robotics – Theory, Concepts and Implementation at Malaviya National Institute of Technology, Jaipur, on May 25, 2019
89. Invited Talk on “Cloud Computing and Security”, in 5-day course on Information Security Education and Awareness (ISEA) at Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, on March 16, 2019
90. Invited Talk on “Cloud Computing and Security”, in 3-day course on Information Security and Management Course at Harish Chandra Mathur State Institute of Public Administration (Rajasthan), Jaipur on Feb, 2019
91. Invited Lectures on “Virtualization and Cloud Computing” for B. Tech students of International Institute of Information Technology Naya Raipur on November 1-2, 2018, 2018.
92. Invited Talk on “Trust Management in Internet of Things” and “Cross Layer Attacks in IoT and Cloud Security”, in MNIT EICT Academy sponsored One-week Faculty Development Programme on “Smart Electronic Systems & IoT for Smart City” at Malaviya National Institute of Technology, Jaipur, on July 31 and August 2, 2018

93. Invited Talk on “Cloud Computing and Security”, in 3-day course on Information Security and Management Course at Harish Chandra Mathur State Institute of Public Administration (Rajasthan), Jaipur on July 4, 2018
94. Invited Talk on “Network Forensics” and “Cloud Forensics” at Defense Institute of Advanced Technology, Pune, on April 16, 2018
95. Invited Talk on “Introduction to Big Data Analytics and Research Challenges,” in MNIT EICT Academy sponsored One-week Faculty Development Programme on “Big Data Analytics” at LNM Institute of Information Technology, Jaipur, on March 17, 2018
96. Invited Talk on “Research Reference and Bibliography Management” in Bioinformatics Centre, Forest Research Institute, Dehradun on March 16, 2018
97. Invited Talk on “Internet of Things for Disaster Management’, in GIAN Course on Disaster Information Management System at MNIT Jaipur on March 14, 2018.
98. Invited Talk on “Artificial Intelligence and its Impact on Human Life” in the Institutional - Professional Training of RAS (Probationers) on March 12, 2018 at at Harish Chandra Mathur State Institute of Public Administration (Rajasthan), Jaipur
99. Invited Talk on “Cyber Security” in National Science Day organized by Vignana Bharathi at Malaviya National Institute of Technology Jaipur on February 27, 2018
100. Invited Talk on “MOOC” and “Bibliography and Diagrams”, in MNIT EICT Academy sponsored One-week Faculty Development Programme on “ICT Tools & Technologies for Teaching Learning Process” at Malaviya National Institute of Technology, Jaipur, on Feb 3-7, 2017
101. Invited Talk on “Bitcoin Technology – Business Module” in the IETE Student Day – 2018 on February 2, 2018 at Banasthali Vidyapith, Bansthali.
102. Invited Talks on “Hadoop, HDFS and MapReduce”, “No SQL Databases”, and “Spark and RHadoop” in the FDP on Big Data Analytics at NIT Raipur on January 8-9, 2018.
103. Invited Talk on “Cloud Forensic Investigations in India,” in the Fourteenth Annual IFIP WG 11.9 International Conference on Digital Forensics, New Delhi, India, January 5, 2018
104. Invited Talk on “Computer Network and Security”, in Two week Refresher course on Recent Trends in Digital Technologies and its Applications at Govt. R. C. Khaitan Polytechnic College Jaipur on December 22, 2017
105. Invited Talk on “Functional Programming using Scala”, MNIT EICT Academy sponsored Two week Faculty Development Programme on *Object Oriented Programming* at Malaviya National Institute of Technology, Jaipur, on November 29, 2017
106. Invited Talks on “Hadoop, HDFS and MapReduce”, “No SQL Databases”, and “Spark and RHadoop” in the Two Week AICTE Sponsored Faculty Development Programme on Deep Learning in Big Data Analytics on November 8-9, 2017 at Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur
107. Invited Talk on “Big Data Analytics” in the IETE Foundation Day – 2017 on November 2, 2017 at IETE Students Center, Jaipur.
108. Invited Talk on “Cloud Computing and Security”, in 3 day course on Information Security and Management Course at Harish Chandra Mathur State Institute of Public Administration (Rajasthan), Jaipur on Aug 30, 2017
109. Invited Talks on “Basics of Computers: Hardware and Software”, “Basics of Networking and Internet” and “Wireless Security and Internet Protocols” in 10 day course on Investigating Cyber Crime Cases at RPA Jaipur on April 17-18, 2017
110. Invited Talks on “Email Investigation” and “Cloud Computing for Forensic Investigation” in 10 day course on Investigating Cyber Crime Cases at RPA Jaipur on January 27, 2017
111. Invited Talk on “Hybrid Intrusion Detection in Cloud Environments” in Cloud Security Alliance Asia Pacific (CSA APAC) Congress, Bangalore on November 22-23, 2016.
112. Invited Talk on “Cloud Computing and Security” in the Workshop on Cloud Computing at Govt. Women’s Engineering College Ajmer on November 10, 2016.
113. Invited Talk on “Virtualization and Cloud Computing” for B. Tech students of International Institute of Information Technology Naya Raipur on August 30, 2016.
114. Invited Talk on “Cloud Computing, Virtualization and Cloud Security” in Short Term Training Programme on Big Data Processing and Cloud Computing at NIT Raipur on August 29-30, 2016.
115. Invited Talk on “Big Data Analytics and RHadoop” in DST Sponsored Training Programme on Big Data Analytics in Agriculture at National Academy of Agricultural Research and Management (NAARM), Hyderabad on June 14, 2016.

116. Invited Talk on “Research Challenges in Cloud Computing” in International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016) at Jaipur National University, Jaipur on March 18, 2016.
117. Invited Talk on “Virtualization and Parallel Computing” in Parallel Computing Workshop at National Institute of Technology Warangal on February 14, 2016.
118. Invited Talk on “Big Data Analytics” in One week Workshop on Machine Learning for Data Analytics at Govt. Womens Engineering College Ajmer on January 18, 2016.
119. Keynote Address on “Big Data Analytics – Research Case Studies” in National Conference on Paradigms in Computing (COPIC 2015), MBM Engineering College, Jai Narayan Vyas University, Jodhpur on December 23, 2015
120. Invited Talk on “Virtualization in Cloud Computing” in Faculty Development Workshop on Cloud Computing at Poornima University, Jaipur on December 21, 2015
121. Invited Talk on “Massive Open Online Courses (MOOCs)” and “Modern Teaching Methods” in Faculty Development Programme on Effective Teaching at Malaviya National Institute of Technology Jaipur on December 16, 2015
122. Invited Talk on “Cloud Security” in Joint Workshop of Cloud Computing Innovation Council of India (CCICI) and IEEE Bangalore in IIIT Bangalore on October 31, 2015
123. Invited Talks on “Cloud Computing” and “Big Data Analytics” in One week Workshop for Enlightenment on Advance Research Trends in Computer Technology (WEAR-C- TECH 2015) on September 30, 2015 at Govt. Womens Engineering College Ajmer.
124. Invited Talk on “Cloud Forensics” in Cloud Security Alliance (CSA) Summit, Bangalore on September 11, 2015
125. Invited Talk on “Massive Open Online Courses (MOOCs)” in Workshop on Higher Education at Malaviya National Institute of Technology Jaipur on December 22, 2014
126. Keynote Address on “Emerging Architectures in Computer Science” in National Conference on Recent Engineering Trends in Energy, Environment & Ecology (RETEEE 2014), Rajshree Institute of Management and Technology, Bareilly on Sept 28, 2014.
127. Keynote Address on “Evolving Architectures” in National Conference on Emerging Trends in Computing Technologies (NCETCT 2014), School of Engineering and Technology, Vikram University, Ujjain on August 26, 2014.
128. Invited Talks on “Cloud Computing” and “Big Data” for B. Tech and M. Tech students in Government Engineering College Bikaner on April 21, 2014.
129. Invited Talk on “Defining a Research Problem Statement” for PhD scholars and M. Tech students in Vivekananda Global University, Jaipur.
130. Faculty Development Programme on “Research Issues and Simulation Tools in Wireless Technologies” at Birla Institute of Technology Extension Centre, NOIDA on Sept 24, 2013.

PH. D THESIS SUPERVISED

1. Anchit Bijalwan, A Framework for Botnet Forensic Analysis, Uttarakhand Technical University, November 2016
2. Preeti Mishra, Efficient Techniques for Intrusion Detection in Cloud Environment, Malaviya National Institute of Technology, December 2017 [Co supervised by Prof. Vijay Varadharajan]
3. Maheep Singh, Salient Object Detection in both Clean and Noisy Images, Malaviya National Institute of Technology, August 2019 [Co supervised by Prof. M. C. Govil]
4. Sameer Singh, An Efficient Broker based Framework for Federated Cloud, Malaviya National Institute of Technology, 2021 [Co supervised by Prof. R. C. Joshi]
5. Pankaj Kumar Keserwani, Development of Approaches for Ad Click Fraud and Network Intrusion Detection, National Institute of Technology Sikkim, 2021 [Co supervised by Prof. M. C. Govil]
6. Anand Mishra, Design and Implementation of Forensic Framework for Cloud Computing, Malaviya National Institute of Technology, 2021 [Co supervised by Prof. M. C. Govil]
7. Avani Sharma, Managing Robust and Scalable Trust in Internet of Things, Malaviya National Institute of Technology, 2021 [Co supervised by Dr. A. P. Mazumdar]
8. Tanvi Chawla, A Scalable Framework for Analyzing Big Semantic Web Data, Malaviya National Institute of Technology, 2022 [Co supervised by Dr. Girdhari Singh]
9. Laxminarayana Sadineni, Holistic Forensic Framework for the Internet of Things, Malaviya National Institute of Technology, 2024 [Co supervised by Dr. Ramesh B. Battula]

PH. D THESIS BEING SUPERVISED

1. Anubha Jain, Enhancing Privacy in Blockchain, Malaviya National Institute of Technology, 2018
2. Anil Prajapati, Efficient Defense Mechanisms for RPL Based Routing Attacks, Malaviya National Institute of Technology, 2018 [Co supervised by Dr. Ramesh B. Battula]
3. Shivani Rohilla, A Learning Framework to identify and categorize Brain Disorders using Medical Imaging Techniques, MNIT Jaipur, 2019 [Co supervised by Dr. Mahipal Jadeja]
4. Aditi Seetha, Disruptive Event Identification from Online Social Network, Malaviya National Institute of Technology, 2022 [Co supervised by Dr. Satyendra Singh Chouhan]
5. Krishna Pal Singh, A Forensic Framework for Analysis of Dark Web Activities in Tor Network, MNIT Jaipur, 2022 [Co supervised by Prof. Vijay Laxmi]
6. Ritika Sharma, Tor Security, Malaviya National Institute of Technology, 2023

M. TECH DISSERTATIONS SUPERVISED

1. Preeti Mishra, Forensic Analysis of Email Date and Time Spoofing, 2012
2. Varsha Mittal, Flexible Deterministic Router & Interface Marking for IP Traceback, 2012
3. Jyoti Choudhry, Privacy Protection in Social Networking Sites, 2012
4. Rumisa F, Analysis & Mitigation of Blackhole & Grayhole Attacks in Adhoc Network, 2013
5. Divya Kapil, Performance Enhancement of Live Virtual Machine Migration, 2013
6. Anand Kumar Mishra, Data Acquisition for Cloud Forensics Analysis, 2013
7. Aman Choudhary, EARA: SLA Aware Resource Allocation Framework for Cloud, 2103
8. Bhanupriya, Green (Energy Efficient) Cloud, 2103
9. Sonu Kumar, Security as a Service in Cloud, 2013
10. Anchal Sharma, Android based Smartphone Tracking, 2013
11. Surekha Gupta, Forensics Analysis of Email Sender Address Spoofing, 2014
12. Manoj Nama, Sentiment Analysis of Tweets, 2014
13. Vijayalaxmi Sharma, Privacy Preservation in Big Data, 2015
14. Priyanka Saxena, Energy Consumption in Robust and Fault Tolerant Replication Techniques for Internet of Things, 2015
15. Priya Agrawal, Android Forensics: The Forensic Analysis on Social Instant Messaging Applications on Android Devices, 2015
16. Sandip Darwade, Map-based Approach for Shortest Path Problem, 2015
17. Rachana Sharma, MapReduce based Classification Algorithms for Intrusion Detection, 2015
18. Priyanka Sharma, A Detection Algorithm for DoS attack in Cloud Environment, 2015
19. Madhuri Gupta, Blocking based Entity Resolution in Bibliographic Data using MapReduce, 2016
20. Nanak Chand, A Scalable Multi-Classifer based IDS for Analyzing Network Traffic, 2016
21. Dolly Mittal, MapReduce based Entity Resolution using Multiple Blocking Keys for Bibliographic Data, 2017
22. Kunal Solanki, Enhancing User Experience with Customer Care by Segregating Problems from Reviews and Social Media, 2017
23. Sunita Jangir, Introspection based Hybrid IDS for Cloud Environments, 2017
24. Richa Grover, Cloud Forensic Analysis, 2017
25. Pooja Shinde, Security Analysis of Kerberos in Distributed System, 2018
26. Vikas Choudhary, MADD: Monitoring and Anomaly Detection in Docker, 2018
27. Vivek Kumar Asati, Defense of Cross Layer Attacks in Internet of Things, 2018
28. Ritu Shree, Design and Security Analysis of Bitcoin Infrastructure using Bitcoin Simulator, 2018
29. Amita Kashyap, Hybrid Intrusion Detection System in Cloud Environment, 2018
30. Rohan Mundhey, Improved ASIC Resistance for Multi-Hash Proof-of-Work Mechanism, 2019
31. Yashika Verma, Docker Forensics, 2019
32. Vikas Teotia, Defenses for Attacks against the Machine Learning Algorithms, 2020
33. Mohammed Iqbal, Defense of Cross Layer Attack (Malicious Link Quality) in IoT, 2020
34. Shivankshi Khandelwal, Access Control Policy based on Direct Anonymous Attestation with Attributes on TPM for Secure Hadoop Ecosystem, 2020
35. Mradul Gupta, Robust Classifiers for Website Fingerprinting, 2021
36. Sakshi Shree, Analyzing and Detecting the trends of DNS based Censorship in India, 2021
37. Dheeraj Sekhani, Adronsil: Automatic Android Forensic Tool, 2021

38. Hemant Maurya, Health Care System based on Blockchain: Multisig Attack and Protection, 2021
39. Bhardwaj Valluri, Malicious Hypercall Sequence Detection using Hypervisor Introspection, 2023.
40. Kishor Bhatt, Tor Forensics: Analysis and Traceback of Hidden Services, 2023
41. Ridhhi, on Deep Reinforcement Learning based Approach for Generating Adversarial Attacks to Evade Intrusion Detection, 2023
42. Srishti Raj, Plant Disease Detection and Classification - A Resnet Based Approach, 2023
43. Siddhant Kaushik, Quantum Key Distribution for Satellite Communication, 2024
44. Yogendra Pal, Designing Secure Mechanism for ZigBee Network Vulnerabilities, 2024
45. Ajay Maida, Mitigating Website Fingerprinting Attacks Using Deep Learning, 2024
46. Sumitra Sharma, Atomic Swap between Ethereum and Bitcoin using Point-Time Lock Contracts (PTLC), 2024

M. TECH DISSERTATIONS BEING SUPERVISED

1. Akash Sindhi, Security Implications of Taproot Integration in Lightning Network, 2025
2. Kanika Jain, Kanika: Escrow on Bitcoin using Point Timelock Contracts, 2025
3. J. Radha Krishna, Designing a Quantum based Navigation for Autonomous Vehicle, 2025

AWARDS / GRANTS

- ISEA Fellowship of Rs 15,000/- p.m. (in addition to the MHRD fellowship of 20,000/-) from the Information Security Education and Awareness Project under DeitY for exceptional research..
- Travel and Registration Grant of \$525 for the ACM Annual Conference of Special Interest Group on Data Communication (SIGCOMM), New Delhi, 2010.

PROFESSIONAL AFFILIATION

1. Senior Member, Institution of Electrical Electronics Engineers (IEEE - 41240388)
2. Senior Member, Association for Computing Machinery (ACM – 8648870)
3. Life Member, Computer Society of India (CSI - 00127558)
4. Member, IFIP WG 11.9 on Digital Forensics
5. Member, IEEE Computer Society / Communications Society
6. Member, ACM Special Interest Group on Security, Audit and Control (SIGSAC)
7. Founding Member, Cloud Computing Innovation Council of India (CCICI)
8. Member, Quantum Ecosystem and Technology Council of India (QETCI)

REFERENCES

1. Prof. R. C. Joshi, Chancellor, Graphic Era University Dehradun (Former Professor, Dept of Electronics and Computer Engg, Indian Institute of Technology Roorkee)
Email: chancellor.geu@gmail.com, rcjosfec@iitr.ernet.in, Mob: +91 98970 15946
2. Dr. Rajdeep Niyogi, Professor, Dept of Computer Science and Engineering, IIT Roorkee.
Email: rajdpfec@iitr.ernet.in, Mob: +91 99979 80503

PERSONAL DETAILS

| | | |
|-------------------|---|---|
| Father's Name | : | Late. Prof. P. A. James |
| Date of Birth | : | December 9, 1974 |
| Marital Status | : | Married |
| Passport No | : | Z7209591 (Valid till July 4, 2033) |
| Aadhaar No | : | 851252945331 |
| Permanent Address | : | H. No 16, I Main, Nandi Durga Road, Jayamahal Extension. Bangalore 560046, Karnataka |

Date: December 1, 2024

Place: Jaipur

(Pilli Emmanuel Shubhakar)