



VIRTUAL CYBER LABS  
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DEVELOPING SECURE CYBER SPACE



## RESEARCH PAPERS - RESOURCES

We understand the need of researchers who are trying hard to get a deep dive into the cybersecurity domain, thus we bring you our free resource of research papers authored by one of our Mentor, Dr. Akashdeep Bhardwaj.

### ABOUT THE AUTHOR



Dr. Akashdeep Bharadwaj is having +26 years IT and Academic experience, working with global organizations (British Telecom, Fiserv, Cvent, Evalueserve, HP, Motricity) securing for client & customers.

### Dr Akashdeep Bhardwaj

With expertise in areas of IT Infra Operations, Cybersecurity & Digital Forensic domains, he is currently with UPES Dehradun working as Professor Cybersecurity & Digital Forensics, teaching engineering students (graduate, masters and doctoral).

He has provided you the ample resource hub of his authored research papers, and books that are focused on cybercrimes and cybersecurity. 'Virtual Cyber Labs' has the vision to develop secure cyberspace and thus accept our contribution.

## **RESEARCH PUBLICATIONS**

### **1. PHISHING/RANSOMWARE**

- [Ransomware Digital Extortion - A Rising New Age Threat.](#) (April 2016). *Indian Journal of Science and Technology (INDJST)*, 9(14). Scopus indexed.
- [Why is Phishing still successful?](#) (September 2020). *Elsevier Computer Fraud and Security, Volume 2020, Issue 9*. Scopus indexed.
- [Hacking Career Jumpstart – OWASP Mobile Top10.](#) (March 2021). *Hakin9 IT Security Magazine, Vol 16, No. 3*, pp 194-208.
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### **2. NETWORK SECURITY**

- [Design a Resilient Network Infrastructure Security Policy Framework.](#) (May 2016). *Indian Journal of Science and Technology (INDJST)*, 9(19). Scopus indexed.
- [Keylogger: Silent Cybersecurity Weapons.](#) (February 2020). *Elsevier Network Security Journal (NSW), Volume 2020(2)*. Scopus indexed.

### **3. THREAT INTEL**

- [Reducing the threat surface to minimize the impact of Cyber-attacks.](#) (April 2018). *Elsevier Network Security Journal (NSW), 2018 (4), 15-19*. Scopus indexed.
- [Framework for Effective Threat Hunting.](#) (June 2019). *Elsevier Network Security Journal (NSW), 2019 (6), 15-19*. Scopus indexed.
- [Cybersecurity Attacks on Robotic Platforms.](#) (October 2019). *Elsevier Network Security Journal (NSW), 2019 (10), 13-19*. Scopus indexed.
- [Capturing-the-invisible \(CTI\): Behavior-based attack recognition in IoT-oriented Industrial Controls Systems.](#) (June 2020). *IEEE Access, Vol 8*. SCI indexed.

### **4. CLOUD SECURITY**

- [Security Algorithms for Cloud Computing.](#) (May 2016). *Elsevier Procedia Science Direct, 85(2016), 535-542*. Scopus indexed.
- [Solutions for DDoS Attacks on Clouds.](#) (July 2016). *IEEE International Conference, 978(1), 4673-8203-8/16*. Scopus indexed.
- [Three Tier Network Architecture to Mitigate DDoS Attacks on Hybrid Clouds.](#) (September 2016). *ACM Digital Library*. Scopus indexed.
- [Review of Solutions for Securing End User Data over Cloud Applications.](#) (October 2016). *International Journal of Advanced Computer Research (IJACR), 6(27)*. Scopus indexed.
- [DDoS Attacks, New DDoS Taxonomy and Mitigation Solutions – A Survey.](#) (October 2016). *IEEE Xplore Digital Library, 78-1-5090-4620-1/16*. Scopus indexed.
- [Designing a Framework for Cloud Service Agreement for Cloud Environments.](#) (December 2016). *International Journal of Cloud Applications and Computing (IJCAC), 6(4), 5*. ESCI indexed.
- [Comparing Traditional Security Solutions with secure Datacenter Architecture to mitigate DDoS.](#) (Sept 2017). *International Journal of Cloud Applications and Computing (IJCAC), 7(3), 3*. Scopus indexed.
- [Security Challenges for Cloud based Email Infrastructure.](#) (November 2017). *Elsevier Network Security Journal (NSW), 2017 (11), 8-15*. Scopus indexed.
- [Novel Taxonomy to Select Fog Products and Challenges faced in Fog Environments.](#) (February 2018). *International Journal of Fog Computing (IJFC), 1(1), 3, 35-49*.
- [Efficient Fault Tolerance on Cloud Environments.](#) (June 2018). *International Journal of Cloud Applications and Computing (IJCAC), 8(3), 2*. ESCI indexed.

- [Algorithm for Secure Hybrid Cloud Design against DDoS attacks.](#) (July 2018). *International Journal of Information Technology & Web Engineering (IJITWE)*, 13(4), 4. Scopus indexed.
- [Unique Taxonomy for Evaluating Fog Computing Services.](#) (October 2018). *International Journal of e-Business Research (IJEER)*, 14(4). ESCI indexed.
- [Framework to define relationship between Cyber Security and Cloud Performance.](#) (February 2019). *Elsevier Computer Fraud and Security (CFS)*, 2019 (2), 12-19. Scopus indexed.
- [Cloud and IoT based Smart Architecture for Desalination Water Treatment.](#) (February 2021). *Environmental Research, Volume 195, 04(2021)*. SCI indexed.

## 5. ARTIFICIAL INTELLIGENCE

- [Health Insurance Claim Prediction Using Artificial Neural Networks.](#) (August 2020). *International Journal of System Dynamics Applications (IJSDA)* 9(3). ESCI indexed.
- [Predicting Annual Rainfall for the Indian State of Punjab Using Machine Learning Techniques.](#) (March 2021). *IEEE 2<sup>nd</sup> International Conference on Advances in Computing, Communication Control & Networking (ICACCCN), India*. Scopus indexed.

## 6. BLOCKCHAIN SECURITY

- [Penetration testing framework for smart contract Blockchain.](#) (September 2020). *Springer Peer-to-Peer Networking and Applications, Volume 5(2020)*. SCI indexed.

## 7. SOCIAL / OTHERS

- [Impact of Social Networking on Indian Youth – A Survey.](#) (September 2017). *International Journal of Electronics and Information Engineering ((IJEIE)*, 7(1), 41-51. EBSCO indexed.
- [Student's Perspective of eLearning and the Future of Education with MOOCs.](#) (October 2018). *International Journal of Computer Science and Engineering (IJCSE)*, 7(5). UGC indexed.
- [Comparing Sequential and Simultaneous Menus for e-commerce Web Portals.](#) (November 2018). *International Journal of Computer Science and Engineering (IJCSE)*, 7(5). UGC indexed.
- [Compressing Effort & Schedule in ERP Implementations with Iterative Methodologies.](#) (March 2020). *International Journal of Innovative Technology and Exploring Engineering*, 9(5). Scopus indexed.

## **BOOK PUBLICATIONS**

1. [Solutions for Securing End User Data over the Cloud Deployed Applications.](#) (March 2016). *Cybersecurity Breaches and Issues Surrounding Online Threat Protection*. Scopus Indexed.
2. [Unique Fog Computing Taxonomy for evaluating Cloud Services.](#) (October 2019). *Advancing Consumer-Centric Fog Computing Architectures*.
3. [Analyzing Ethical Issues of a Patient Information Systems Using the PAPA Model.](#) (February 2020). *Impact of Digital Transformation on Security Policies and Standards*.
4. [Digital Transformation of Diplomacy: The Way Forward for Small Island States.](#) (March 2020). *Impact of Digital Transformation on Security Policies and Standards*.
5. [Network Security Evaluation & Threat Assessments in Enterprise Systems.](#) (April 2020). *Impact of Digital Transformation on Security Policies and Standards*.
6. [Attack Vectors for Smart Contract based Blockchain Technologies.](#) (April 2020). *World Scientific Publishing, Blockchain Technologies, Applications & Cryptocurrencies*. Scopus indexed.
7. [DDoS Attack Mitigation Architecture.](#) (May 2020). *Lambert Academic Publications, EAN: 978620255517*. (Edited Book).
8. [Cybersecurity Incident Planning and Preparation for Organizations.](#) (July 2020). *Google Bookstore*. (Edited Book).
9. [Comparing Single Tier and Three Tier Infrastructure Designs against DDoS Attacks.](#) (July 2020). *Research Anthology on Combating Denial-of-Service Attacks*.
10. [Cloud Computing Security Services to Mitigate DDoS Attacks.](#) (July 2020). *InTech Open Publications. Cloud Computing Security - Concepts and Practice*.

11. [\*\*A Taxonomy of Blockchain Applications.\*\*](#) (September 2020). *World Scientific Publication. Blockchain Technologies, Applications and Cryptocurrencies.*
12. [\*\*Attack Vectors for Blockchain & OWASP Vulnerabilities to Smart Contracts.\*\*](#) (September 2020). *World Scientific Publication. Blockchain Technologies, Applications and Cryptocurrencies.*
13. [\*\*Industrial Internet of Things: Benefit, Applications, and Challenges.\*\*](#) (January 2021). *Innovations in the Industrial Internet of Things (IIoT) and Smart Factory.*
14. [\*\*Analyzing Human Resource Information System in Organizations.\*\*](#) (February 2021). *Enterprise Systems and Technological Convergence – Research & Practice, Information Age Publishing.*
15. [\*\*Big Data and Big Data Analytics: A Review of Tools and its Application.\*\*](#) (March 2021). *Applications of Big Data in Large- and Small-Scale Systems, IGI Global.*
16. [\*\*Big Data Analytics in Healthcare: A Developing Country Survey.\*\*](#) (March 2021). *Applications of Big Data in Large- and Small-Scale Systems, IGI Global.*
17. [\*\*Unique Taxonomy for Evaluating Fog Computing Services.\*\*](#) (March 2021). *Research Anthology on Architectures, Frameworks, and Integration Strategies for Distributed and Cloud Computing. IGI Global.*
18. [\*\*Efficient Fault Tolerance on Cloud Environments.\*\*](#) (March 2021). *Research Anthology on Architectures, Frameworks, and Integration Strategies for Distributed and Cloud Computing. IGI Global.*
19. [\*\*Unique Fog Computing Taxonomy for Evaluating Cloud Services.\*\*](#) (March 2021). *Research Anthology on Architectures, Frameworks, and Integration Strategies for Distributed and Cloud Computing. IGI Global.*
20. [\*\*Novel taxonomy to select fog products & challenges faced in fog environments.\*\*](#) (March 2021). *Research Anthology on Architectures, Frameworks, and Integration Strategies for Distributed and Cloud Computing. IGI Global.*