

## Bishwo Prakash Pokharel

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### Education

**Nepal Open University, Nepal | 2025**

**Master of Philosophy (M.Phil)** in Information, Communication, and Technology

CGPA: 3.71/4.0

**Sault College of Applied Arts and Technology, ON, Canada | 2024**

**Postgraduate Diploma in Cyber Security**

CGPA: 4.0/4.0 | *International Academic Excellence Award 2023*

**Indira Gandhi National Open University (IGNOU) | 2017**

**Master of Computer Application (MCA)**

Score: 72%

**Oxford College of Engineering & Management, Pokhara University, Nepal | 2012**

**Bachelor of Computer Application (BCA)**

CGPA: 3.71/4.0 | *Dean's List Award*

### Publications

- Pokharel, B. P., Kshetri, N., Sharma, S. R., & Paudel, S. (2025). blockHealthSecure: Integrating Blockchain and Cybersecurity in Post-Pandemic Healthcare Systems. *Information*, 16(2), 133. <https://doi.org/10.3390/info16020133>
- Pokharel, B. P., & Kshetri, N. (2025). SmartVAST: Vulnerability, attacks, security, and threats on smart cities with impact and ability in blockchain technology. *Deep Learning and Blockchain Technology for Smart and Sustainable Cities*, 203–224. <https://doi.org/10.1201/9781003476047-12>
- Pokharel, B. P., Kshetri, N., Sharma, S. R., Paudel, S. R., & Baral, S. (2025). Blockauth. *Advances in Computational Intelligence and Robotics*, 99–136. <https://doi.org/10.4018/979-8-3373-6481-0.ch004>
- Pokharel, B. P., & Kshetri, N. (2024, October 8). Blocklaw: Blockchain technology for Legal Automation and workflow -- cyber ethics and cybersecurity platforms. arXiv.org. <http://dx.doi.org/10.48550/arXiv.2410.06143>
- Pokharel, B. P., & Koju, R. (2022). Sentiment analysis using Hierarchical Multimodal Fusion (HMF). *World Journal of Advanced Research and Reviews*, 14(3), 296–303. <https://doi.org/10.30574/wjarr.2022.14.3.0549>
- Pokharel, B. P. (2021). A comparative analysis of disk scheduling algorithms. *International Journal for Research in Applied Sciences and Biotechnology*, 8(2), 184–195. <https://doi.org/10.31033/ijrasb.8.2.24>
- Pokharel, B. P. (2020). Twitter sentiment analysis during covid-19 outbreak in Nepal. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3624719>
- Paudel, S. R., Sharma, S. R., & Pokharel, B. P. (2025). Genblock. *Advances in Computational Intelligence and Robotics*, 167–194. <https://doi.org/10.4018/979-8-3373-6481-0.ch006>
- Sharma, S. R., Kshetri, N., Paudel, S. P., & Pokharel, B. P. (2025). Trustchain. *Advances in Computational Intelligence and Robotics*, 137–166. <https://doi.org/10.4018/979-8-3373-6481-0.ch005>
- Osama, O. F., Kshetri, N., Rahman, M. M., & Pokharel, B. P. (2025). healthMLsec: Machine Learning based Vulnerability Assessment in Health Systems: A Framework for Enhancing Cybersecurity and Patient Data. Preprints. <https://doi.org/10.20944/preprints202502.2165.v1>
- Kshetri, N., Prakash Pokhrel, B., Mehedi Rahman, M., Mishra, R., & Hutson, J. (2025). Securemetaend—Endpoint Security in the metaverse. *Defending the Metaverse*, 319–333. <https://doi.org/10.1201/9781003581659-16>
- Mishra, R., Jha, S. K., Kshetri, N., Bhusal, B., Rahman, M. M., Rana, M. M., Eli, A. A., Islam, K. A., & Pokharel, B. P. (2025). NODEWSNSEC: A hybrid metaheuristic approach for reliable security and node deployment in wireless sensor networks. *International Journal of Advanced Computer Science and Applications*, 16(8). <https://doi.org/10.14569/ijacsa.2025.0160814>

- Chapagain, D., Kshetri, N., & Pokharel, B. P. (2025a). Aiscliteracy: Assessing AI and cybersecurity literacy levels and learning needs of students. *Algorithms for Intelligent Systems*, 435–448. [https://doi.org/10.1007/978-981-96-5265-5\\_33](https://doi.org/10.1007/978-981-96-5265-5_33)
- Kshetri, N., Carter, W., Kern, S., Mensah, R., & Pokharel, B. P. (2024, October 26). *HateUS -- analysis, impact of social media use and hate speech over university student platforms: Case study, problems, and solutions*. arXiv.org. <http://dx.doi.org/10.48550/arXiv.2410.20070>
- Osama, O. F., Bhushal, B., Kshetri, N., & Pokharel, B. P. (2024). Blockdads. *Blockchain Technology for Cyber Defense, Cybersecurity, and Countermeasures*, 222–234. <https://doi.org/10.1201/9781003449515-14>
- Rahman, M. M., Pokharel, B. P., Sayeed, S. A., Bhowmik, S. K., Kshetri, N., & Eashrak, N. (2024). *riskAIchain: AI-Driven IT Infrastructure—Blockchain-Backed Approach for Enhanced Risk Management*. *Risks*, 12(12), 206. <https://doi.org/10.3390/risks12120206>

## **Ongoing Projects**

- FUSE-VAPT: Fusing OSINT and AI-ML for Intelligent Threat Intelligence in Vulnerability Assessment and Penetration Testing.
- PMLA – Personalized, Multilingual, and Adaptive Learning Analytics for Next-Generation Language Education.
- AutoGuardX: A Comprehensive Cybersecurity Framework for Connected Vehicles
- AI-Driven Clone Detection: An Intelligent Approach to Preventing Mobile Application Replication.
- AgIoT Framework: AI-Driven Cybersecurity Threat Detection for Agricultural IoT Device with Blockchain Integration
- agriTblock – Blockchain for Transparent and Traceable Supply Chain in Agriculture
- Deploying Large Language Models (LLMs) for Cybersecurity: Prospects, Challenges, and Future Directions
- Artificial Intelligence – Powered Vulnerability Identification and Management: A Revolution in Cyber Threat Intelligence
- Hybrid Cryptographic Systems: The Need for Security, Cryptography, and Advancements
- UAVchain: A Study on Blockchain Technology Applications for Unmanned Aerial Vehicles (UAVs) – Safety, Security, Directions, and Challenges
- Blockchain Integration in IT Infrastructure: A Layered Approach to Cybersecurity and System Optimization

## **Teaching Experience**

### **Cybersecurity and Digital Forensics Instructor - Nepal Open University (NOU) | September 2025 – Present**

- Delivered postgraduate courses in Cybersecurity and digital forensics.
- Guided students in digital evidence handling and malware forensics.
- Mentored research projects in emerging cybersecurity domains.

### **BCA Program Coordinator & Instructor - Sungava College, Tribhuvan University | 2018-2022**

- Delivered 7+ undergraduate courses in IT and cybersecurity.
- Mentored 100+ students; 85% secured internships or IT roles.
- Led curriculum development aligned with global standards.

### **Instructor (BBA/MBA) - Presidency College of Management Sciences, Purbanchal University, Nepal | 2016 –2022**

- Taught MIS, E-commerce, and DBMS; developed adaptive lesson plans.
- Implemented interactive modules aligned with diverse learning styles.

### **Instructor (BCA) - Oxford College of Engineering & Management, Pokhara University, Nepal | 2012 – 2022**

- Conducted lectures on Operating Systems, Electrical and Electronics, Microprocessor, Mathematical Foundations of Computer Sciences.
- Led academic workshops and IT project mentorship.

### **Instructor (BSc. CSIT) - Indreni College, Tribhuvan University, Nepal | 2015 – 2018**

- Delivered Programming in C, Digital Logic, Discrete Structures, Operating Systems, Cognitive Sciences, Software Engineering, Project Management, Geographical Information System.
- Integrated real-world cybersecurity case studies into academic instruction.

## Industry Experience:

### **Chief Information Security Officer (CISO) – NYXSentinel | July 2025 – Present**

- Developed security and compliance platform vision aligned with SOC 2, HIPAA, and CCPA by defining roadmaps and collaborating with teams, achieving certifications for 10+ clients.
- Managed service delivery and QA using JIRA workflows, improving deliverable quality by 30% and reducing errors.
- Oversaw contractor relationships through performance reviews, cutting project delays by 25%.
- Integrated security controls with engineering teams, ensuring audit-ready frameworks.

### **Security and Compliance Lead – MyEvaluationPal | June 2025 – Present**

- Designed SOC2 and ISO 27001 protocols by conducting gap analyses, reducing compliance risks by 40%.
- Led risk assessments and incident response with Nessus and Rapid 7, resolving 95% of vulnerabilities.
- Embedded security into SDLC by partnering with developers, shortening review cycles by 20%.
- Delivered training to 50+ employees, boosting phishing detection by 15%.

## Certifications

- **Blue Team Junior Analyst**, Security Blue Team | Nov 2024
- **CompTIA Security+**, CompTIA | Oct 2024
- **Google Cybersecurity Certificate**, Google | Oct 2024
- **Certified in Cybersecurity (CC)**, ISC2 | Nov 2023
- **ISO/IEC 27001:2022**, SkillFront | Dec 2023

## Technical Skills

- **Cybersecurity:** Risk & Vulnerability Management, SIEM, Incident Response, Pen Testing
- **Networking:** Cisco Devices, Windows Server, Active Directory, Linux
- **Programming:** Python, PowerShell, SQL, BASH
- **Tools:** Nmap, Nessus, sqlmap, Burp Suite, OWASP ZAP, Zendesk

## Leadership & Service

**Director**, Cyber Resources Network Global (CRN-Global), Canada | 2024 – Present

**Microsoft Student Partner**, Microsoft Innovation Center Nepal | 2012 - 2013

## References:

- Dr. Naresh Kshetri, Rochester Institute of Technology | [naresh.kshetri@rit.edu](mailto:naresh.kshetri@rit.edu)
- Dr. Gokarna P. Sharma, Kent State University | [gsharma2@knt.edu](mailto:gsharma2@knt.edu)
- Dr. Bhoj Raj Ghimire, Nepal Open University | [bghimire@nou.edu.np](mailto:bghimire@nou.edu.np)
- Muhammad Ali Nadeem, Sault/triOS College | [nadeem133@hotmail.com](mailto:nadeem133@hotmail.com)