



**International Conference on Recent Developments in Science,
Engineering, Management, and Humanities (ICRDSEMH - 2023)
22nd October, 2023, Hyderabad, Telangana, India.**

CERTIFICATE NO : ICRDSEMH /2023/C1023821

**ANALYSING ZOMBIE ATTACK THREATS IN CLOUD
COMPUTING ENVIRONMENTS**

S M FIRDAUS ZAKI RIZVI

Research Scholar, Ph. D. in Computer Science, Dept. of. Mathematics and Computer Science
Magadh University, Bodh Gaya - Bihar, India.

ABSTRACT

Cloud computing offers numerous benefits including scalability, flexibility, and cost-efficiency, which have driven its widespread adoption. However, with these advantages come significant security challenges. One such challenge is the Zombie Attack, a type of distributed denial-of-service (DDoS) attack where compromised virtual machines (VMs) within a cloud environment are used to launch coordinated attacks. This paper explores the nature of Zombie Attacks in cloud computing, detailing the mechanisms by which VMs are compromised, the impact on cloud services, and the potential risks to data integrity and availability. We review existing detection and mitigation strategies, and propose an enhanced multi-layered defence framework that integrates anomaly detection, machine learning algorithms, and real-time response mechanisms. Through extensive simulations and real-world case studies, we demonstrate the effectiveness of our proposed framework in identifying and neutralizing Zombie Attacks, thereby enhancing the overall security posture of cloud computing environments.