

**BATCH NO: 7**

**PROJECT TITLE: A SECURE AND ENERGY EFFICIENT BLOCKCHAIN INFRASTRUCTURE FOR ANONYMOUS WIRELESS SENSOR NETWORKING**

**ABSTRACT:**

The propose a blockchain-based anonymous networking strategy called (BAN) that uses group signatures and unique random identifiers on top of a blockchain network to provide the desirable features. However, security analysis reveals that adopting anonymous signatures on top of blockchains opens the door to other forms of cyber-attacks, such as denial-of-service (DoS), man-in-the-middle (MitM), and traffic analysis attacks. Hence, propose a secure BAN (S-BAN) network that upgrades the BAN to enable secure and privacy preserving DSM. The S-BAN is based on a novel onion routing with blockchain interconnected servers strategy (ORBITS). This approach involves routing messages through multiple intermediary nodes, obscuring their origin and destination, thus providing enhanced anonymity and protection against traffic analysis attacks.

**Keywords :** Blockchain based anonymous networking, Cyber-attacks, Privacy preserving, Nodes, Blockchain, Traffic analysis attacks.