

**Talk Title:** Illicit Accounts in the Cryptocurrency-Based Blockchain: Towards their detection

**Speaker:** Rachit Agarwal

**Abstract:** The decentralization, redundancy, and pseudonymity features have made permissionless blockchains attractive for adoption as technology platforms for cryptocurrencies. However, such adoption has allowed cybercriminals to exploit vulnerabilities in the cryptocurrency-based blockchain platforms and target users through social engineering attacks. Further, they have enabled cybercriminals to carry out illicit activities such as money laundering, gambling, and perform ransomware attacks. Most of the state-of-the-art techniques for detecting illicit actors depend on the transactional behavior of individuals. In this talk, I shall first present the need to analyse user transactions and their behavior. To characterize accounts and their behaviors, I will present our work encompassing temporal features such as burst and attractiveness on top of existing graph properties such as the node degree. Building on these features, I will present the methodology we use to detect illicit accounts across different cryptocurrency-based blockchains and several extensions to this work. Finally, I will conclude the talk by enumerating several extensions that I envision.