

**BATCH NO: 3**

**PROJECT TITLE: SECURING CHANNEL CREATION FOR TASK DELIVERY IN VEHICULAR CLOUD COMPUTING TO AVOID DENIAL OF SERVICE (DoS)**

**ABSTRACT:**

This Project proposes an innovative approach to Vehicular cloud computing (VCC), it's crucial to securely send tasks without interruptions, It sets up secure channels between vehicles and the cloud using strong encryption and authentication methods. This ensures that data sent between them stays private, unaltered, and comes from trusted sources. If it detects any signs of a DoS attack, it reroutes traffic away from affected areas. Also, it uses vehicle-to-vehicle communication for spreading updates about security threats, making the whole network smarter and safer. This keeps critical services running smoothly in VCC environments, even when facing cyber threats. With the rapid development of vehicular cloud computing (VCC), enabling secure and efficient communication channels for task delivery becomes crucial, demonstrating its effectiveness in ensuring secure and timely task delivery while minimizing overhead and latency. Our results indicate that the proposed scheme outperforms existing approaches in terms of security, efficiency, and reliability, making it suitable for real-world deployment in VCC systems. Furthermore, our scheme incorporates mechanisms for adaptability to varying network conditions and vehicular traffic patterns, ensuring resilience to dynamic changes in the environment. By dynamically adjusting channel allocation and encryption parameters based on real-time conditions, our scheme maintains optimal performance even in challenging scenarios such as high congestion or intermittent connectivity. Additionally, we address potential security threats such as eavesdropping and spoofing attacks by employing robust encryption and authentication techniques. Through comprehensive analysis and experimentation, we demonstrate the efficacy of our scheme in providing a secure and efficient channel establishment mechanism for task delivery in VCC, paving the way for enhanced reliability and trust in vehicular cloud computing environments.

**Keywords:** Vehicular cloud computing, cloud computing, Denial of service, vehicle to vehicle communication, threat, Security, Task Delivery, Cyber Threat.