Job Opening: Automotive Cybersecurity Penetration Testing Consultant

📍 **Location: CIRT Headquarters, Pune, India**
🕐 **Engagement Type: On Temporary basis as consultant (Project-Based)**
🔬 **Mode: On-site & Remote (as per project requirement)**
📋 **Reports To: Head – Automotive Cybersecurity Division, CIRT**

Role Overview

The Central Institute of Road Transport (CIRT) invites applications for the role of Automotive Cybersecurity Penetration Testing Consultant. This position involves conducting advanced penetration testing and vulnerability assessments on modern vehicle systems including ECUs, in-vehicle networks, telematics, and connected vehicle infrastructure. The selected candidate will play a key role in supporting homologation, type approval audits, and the development of national cybersecurity testing frameworks.

Key Responsibilities

- **Execute grey-box and black-box penetration testing on vehicle systems: ECUs, CAN/Ethernet networks, infotainment, TCU, ADAS, and V2X modules.**

- **Identify and exploit vulnerabilities in communication stacks, firmware, wireless interfaces (Wi-Fi, Bluetooth, LTE), and cloud-based components.**

- **Utilize and customize tools such as CANoe, Wireshark, Scapy, Metasploit, Ghidra, and others for testing and analysis.**

- **Ensure compliance with AIS-189, UNECE R155, ISO/SAE 21434 by generating audit-ready test reports.**

- **Support remediation efforts by collaborating with OEM and Tier-1 stakeholders.**

- **Contribute to setting up in-house test environments, benches, and labs.**

- **Assist in training internal teams and developing indigenous automotive cybersecurity testing capabilities.**

Desired Profile

Educational Background:

- **Bachelor's or master's degree in computer science, Electronics, Embedded Systems, Cybersecurity, or a related discipline.**

Experience:

- **2–5 years of experience in penetration testing.**

- **Minimum 2 years in automotive or embedded systems preferred.**

Certifications (Preferred):

- **OSCP, GIAC GPEN, CEH**

- **Automotive Cybersecurity Certifications (e.g., ISO 21434, AUTOSAR Security, TARA methodology)**

Technical Skills:

- **Deep knowledge of automotive protocols: CAN, LIN, FlexRay, Ethernet**

- **Experience with UDS (ISO 14229), DoIP, OBD-II, diagnostics and secure OTA workflows**

- **Proficiency in reverse engineering firmware using tools like Ghidra or IDA Pro**

- **Scripting ability in Python, Bash, C and use of automotive testing frameworks**

- **Understanding of EV systems, keyless entry, and TCU/telematics modules is a plus**

Application Instructions

Interested candidates are requested to submit:

- **An updated CV**

- **A brief cover letter highlighting relevant experience and certifications**

Shortlisted candidates will be invited for a technical evaluation and interview.

📧 **Apply Now & send your CV on below email ID**

pers@cirtindia.com

Deadline: on or before 01st July 2025 at 17.30 hrs.

Join CIRT in advancing national capabilities in vehicle cybersecurity testing and making Indian roads safer and more secure for the future.