

# INTERNSHIPS DESCRIPTION FORM



<b>Title: Validation Fleet data Management</b>		<b>Job Code:</b>
<b>Family: Commercial and Special Vehicle – Light (IVECO)</b>	<b>Sub Family: Product Electronic Validation</b>	<b>Task: Data Fleet Management</b>
<b>INTERNSHIPS DESCRIPTION:</b>		
<p>We're looking for an undergraduate or graduate internship to join our Electronic validation team to follow the vehicles' validation and real customers' fleet.</p> <p>The main target is define a process to governance these data: record, collect and manage them.</p> <p>The candidate will work in collaboration with Electronic Validation, Quality and Telematics teams has to be able to analyze the data for: <b>mission profile, time history</b> and <b>ECUs errors</b> recording.</p> <p>This current project is divided in <b>two phases</b>.</p> <p><b><u>Phase 1 (macro outer analysis → Real Customers data Vs Validation Prototypes data)</u></b></p> <p>On validation fleet will be possible take pictures of <b>mission profile</b> by the follow data:</p> <ul style="list-style-type: none"> <li>• public CAN bus (driving style parameters: accelerator pedal, brake, engine/vehicle speed,...),</li> <li>• private CAN Bus (ADAS sensors: radar, camera,...).</li> <li>• GPS coordinate</li> </ul> <p>These data have to be matched with real customers fleet. In fact the candidate will work in collaboration with Telematics Team to include also the data coming from Vehicles' Telematics ECUs (installed on validation prototypes and real customers field vehicles).</p> <p>In this way, it will be possible to use not only the data from validation prototypes, but also from real customers' vehicles running on the field.</p> <p>The main scope for customers' real data analysis is to compare the vehicle real uses cases with standard validation tests cases, by:</p> <ul style="list-style-type: none"> <li>• parameter set analysis</li> <li>• matching between standard mission and real uses</li> </ul> <p><b><u>Phase 2 (micro inner analysis → Governance on Validation data fleet)</u></b></p> <p>Focused on validation fleet the candidate will have to create a process to govern the data for <b>time history</b>:</p> <ul style="list-style-type: none"> <li>• public CAN bus (driving style parameters: accelerator pedal, brake, engine/vehicle speed,...),</li> <li>• private CAN Bus (ADAS sensors: radar, camera,...)</li> <li>• video cam (images and video to record the scenario)</li> <li>• GPS coordinate</li> </ul> <p>About the <b>ECUs errors</b>, the candidate will support the validation of new content by:</p> <ul style="list-style-type: none"> <li>• diagnostic issues recording</li> <li>• trouble shooting in collaboration with systems engineers</li> <li>• data storage</li> </ul> <p>These data can be triggered by automatic trigger (threshold) or manual by driver input.</p>		
<b>ESSENTIAL RESPONSIBILITIES:</b>		
<ul style="list-style-type: none"> <li>• managing validation fleet portfolio matching the vehicles with right HW (data loggers) and SW (strategy to download and reposit the data)</li> <li>• Monitoring the vehicles' validation fleets by remote engineering data loggers and telematics ECUs</li> <li>• Collecting and monitoring errors in memory during functional tests, durability and reliability fleet</li> <li>• Manage and storage the big data coming from our vehicles' validation fleet</li> <li>• Analysing customers' telematics data for mission profile, real use case detection and validation methods updating</li> <li>• Data loggers tools governance (new investment, upgrading, configurations...)</li> </ul>		

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## CANDIDATE PROFILE

### Communication:

- Durability and Reliability external providers: data management requirements (data loggers configurations, data storage...)
- Product Validation Durability: data management requirements (data loggers configurations, data storage...)
- Electronic Engineering: data base sharing
- Chief validation: sharing of technical documentation, open point list, logs file for problem solving
- Validation specialist: to support for data loggers configuration for functional/performances tests
- Quality: data analysis to preventive issues and to confirm reliability growth mileage mission

### Requirements:

- Student or new graduate in MS/BS Degree in Engineering with emphasis in Electronic
- Knowledge of installation and use of measurement equipment as well as signal analysis
- Knowledge of MS Office applications (Excel, Word, PowerPoint,..)
- Knowledge of Vehicle Electronic Architectures and Applications, including CAN communication, SAE J1939 protocol, ISO 14229 - UDS diagnostic protocol, basic knowledge of Vehicle Dynamics principles
- Passion for testing
- Enthusiasm and the ability to handle difficult situations
- Self-starter, able to work under pressure, with flexible working attitude driven by the strong desire to completely achieve objectives
- Ability and discipline to work independently, as well as in a team

### Internship Site:

IVECO, Lungo Stura Lazio n° 49 10156 Torino.

### Contact reference:

**IVECO**

A brand of CNH Industrial

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