# Job Description

<table>
<thead>
<tr>
<th><strong>Job Title</strong></th>
<th>TLC System Engineer - Ground Segment</th>
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<tbody>
<tr>
<td><strong>Business Line / Function</strong></td>
<td>Products &amp; Solutions (Communication Equipment)</td>
</tr>
<tr>
<td><strong>Location</strong> <em>(site where this job is based)</em></td>
<td>Rome</td>
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<tr>
<td><strong>Reports to</strong> <em>(title of manager’s job)</em></td>
<td>Head of Communication Equipment</td>
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## Mission of the Job

Contribute to design and development of ground communication equipment for satellite services, with particular focus on Internet-Of-Things (IOT) and Machine-to-Machine (M2M) applications.

## Main activities *(list of the main activities to perform the job)*

- Provide support in the design of ad-hoc air-interfaces able to efficiently provide end-to-end communications in satellite M2M / IOT application scenarios.
- Provide support in the design of suitable communication equipment at both base station and user terminal side.
- Provide support for the development and maintenance of the SW tools able to simulate end-to-end telecommunication systems and derive the system performances at both physical and link layer levels.
- Simulate the modem specific signal processing algorithms and contribute to the modem optimization aiming at best trade-off between complexity/costs and performances.
- Support the HW implementation of the specified signal processing algorithms as well as test-benches development, system integration and test phase execution.
- Contribute to the production of the relevant technical documentation in the frame of the various active projects.
<table>
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<th>Competences</th>
<th>Education/Training</th>
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<tr>
<td></td>
<td>• Strong academic background in Communication Systems and Signal Processing.</td>
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<td>• Knowledge of Satellite Communication System is also appreciated with understanding of SatCom ground segment architectures for broadcasting, broadband, trunking, backhauling and mobile applications.</td>
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**Experience**

• Expertise in some of the areas below would be appreciated:
  - communication protocols
  - quality of service aspects
  - upper layer techniques in IP and networking
  - Air interface techniques
  - SW Defined Radio (SDR)

**Tool or product requirements**

• Good knowledge of Matlab/Simulink for communication system modelling.

• Good knowledge of general purpose object-oriented programming languages (e.g. C++).

**Languages**

Fluency in English is essential for the position.

**Behaviours:**

• Strong analytical skills and ability to communicate effectively.

• Creates and encourages effective two way communication.

• Team-worker whose working style is highly collaborative in nature.

• Promotes and demonstrates personal and professional development for self and others.