

From: Prof. Adriano CAMPS, IEEE Geoscience and Remote Sensing Society Past-President

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Subject: Evaluation of student internship at the UPC NanoSat Lab.

To whom it may concern,

Serve this letter to certify that Mr. Mario Mendez Soto, student of MSc in Computational Mechanics Universitat Politècnica de Catalunya/Stuttgart University has completed a minimum of 450 hours within the framework of the internship, developing a suite of software tools to design an analyze deployable parabolic reflectors for cubesats and small satellites in general. These include:

- 1. different types of reflector geometries and mesh, and the telescopic mast.
- 2. an error analysis has also been conducted to pre-assess in quantitative manner its electromagnetic performance.
- 3. the interfaces to connect directly the outputs of his matlab codes into ANSYS and MSC Adams mechanical analysis software tools, and CST electromagnetic analysis software tool.

Mr Méndez is a really brilliant student, and he has performed in an outstanding manner, working very diligently and independently, looking for solutions himself in a very professional and mature manner.

Sincerely,

Prof. Adriano Camps Universitat Politècnica de Catalunya-Barcelona Tech July 12th, 2019