



Universidad
Carlos III de Madrid

To: Whom it may concern

From: Dr. Horacio Lamela Full Professor of the Department of Electronic Technology

Date: July, 2nd, 2024

Re: Andrés Navarro Pedregal Letter of Recommendation for the "Technical Studentship - IT, Mathematics & Robotics 2024/3" Programme at CERN in Geneve, Switzerland.

I know Andrés as Student of Photonics and Electronics Systems at the 3rd year of the Graduate Degree on Telecommunication Engineering where he got theoretical knowledges on the area of Photonics and Optics, Electromagnetic waves and Quantum Oscillators by allow him to get concepts of Optical Amplifiers, Optical Resonators and Laser Emitters. In this wave, he got as well knowledges on Laser Sources in Semiconductors, especially on Diode lasers and LED's (Light Emitting Diodes) and Semiconductor Photodiodes as PIN and APDs that allow him to be involved as well in Laboratory Studies by using PSpice with Diode Lasers and PIN Photodiodes and with Its associated Electronics as Transadmittance and Transimpedance (TIA) Amplifiers within the Area of Communications and real applications by doing a work on Photonics for Methane Sensing with a LIDAR System, where he obtained high grades levels.

Also in Electronic Systems he improved his knowledges on Frequency Analysis of Electronic Feedback Circuits, Oscillators, Real Operational Amplifiers and their Applications, PLLs, Power Supplies and Energy Converters. By applying these new knowledges in the Laboratory, he constructed and measured electronic systems being as well within the area of communications and real applications on the design and testing techniques of RF and microwave devices.

For all these reasons, I highly recommend Andrés for the "Technical Studentship - IT, Mathematics & Robotics 2024/3" Programme at CERN in Geneve. Please, do not hesitate to contact me if you require any additional information.

Signed:

Dr. Horacio Lamela

Full Professor of the Department of Electronic Technology at Carlos III University and Director of the Optoelectronics and Laser Technology Research Group (GOTL).