

Lisbon, February 2016

To whom it may concern,

I had the opportunity to know Tiago Moço Ferreira in 2006 when he attended the "Railway Engineering" Course in the Integrated MSc in Civil Engineering at Instituto Superior Técnico (IST). Tiago Ferreira was really an excellent student in this course, obtaining a score of 17 (out of 20) which led me to invite him to complete his MSc dissertation under my supervision.

During his MSc dissertation, Tiago Ferreira revealed an extraordinary aptitude for understanding, formulating and solving complex research problems, along with outstanding work capabilities and sense of responsibility. The quality of the dissertation was truly exceptional (obtaining 18/20 as a final score), with a work that gave rise to the publication of a paper in an SCI (Scientific Citation Index) Journal, a fact that is truly uncommon at this level of study (MSc dissertation).

Furthermore, and thanks to his excellent academic curriculum and his extraordinary research capabilities demonstrated in his MSc dissertation, Tiago Ferreira had the opportunity to continue his research studies on the framework of a PhD Program in Transportation Systems under my supervision, winning a scholarship from the Portuguese Ministry of Science Foundation. Tiago completed his PhD thesis in the domain of railway engineering in 2015, with results that I consider absolutely exceptional, giving rise to the development of an innovative 'step-change' methodological approach for the design of railway track substructures. I have absolutely no doubts that the upcoming dissemination of his PhD results will very soon give rise to a number of important research papers in SCI Journals, that will be among the most

cited references for the forthcoming works in this domain of transport infrastructure design.

During the course of his PhD studies Tiago Ferreira also participated in some important research projects under my supervision, among which the BITURAIL and MODURAIL projects for the Portuguese Ministry of Science and Foundation, and the European Project Capacity4rail, where Tiago has been involved in tasks related to infrastructure design and life cycle cost modelling, being responsible for the whole methodology proposed by this important research project on the domain of the resilience of infrastructures to natural events. Within this European project, Tiago also demonstrated having excellent teamwork and task coordination capabilities, a fact that has been recognized among the partners of the consortium, formed by the most significant industrial players of the railway sector.

Therefore, based on the extraordinary academic and professional capabilities demonstrated by Tiago Ferreira along these years I had the opportunity to work with him, I can definitely acknowledge that he has, without any type of doubts, all the attributes to pursue a brilliant and successful professional career in any field he might be interested in.

I'd like to express my willingness to clarify any points mentioned here or any other topics that may be deemed relevant.

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