

POS-D05*PD en Ingeniería Mecánica***IRI PERFORMANCE MODELS FOR RECENTLY CONSTRUCTED LOW AND MEDIUM-TRAFFIC TWO LANE ROADS OF THE PROVINCE OF BISCAY**

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Reliable pavement prediction models are needed for pavement managements systems (PMS), as they are a key component of the PMS to forecast future conditions of the pavement and to prioritize maintenance, rehabilitation, and reconstruction (MR&R) strategies. The International Roughness Index (IRI) is the most used parameter worldwide for calibrating pavement roughness and measures reasonably the ride comfort perceived by occupants of passenger cars. The Regional Government of Biscay also obtains this value from the data collection campaigns on the road network under its control. These campaigns are carried out regularly in the XXI century. Several IRI performance models have been proposed by different authors and administrations, varying greatly in their comprehensiveness, the ability to predict performance with accuracy and input data requirements. The aim of this paper is to develop a roughness performance model for Biscay's roads, based on available IRI data, being able to reflect heavy traffic, age of pavement as well as local characteristics, like normally employed pavement sections and weather conditions. Therefore, an IRI performance model has been suggested for regional two lane highways with low and medium heavy traffic constructed in the last 20 years in the province of Biscay. It could be applied in the sustainable and efficient PMS that the Regional Government of Biscay is carrying out. The importance of the rainy climate and the different performance of flexible and semi-flexible pavements must be underlined