## 14AS100 Design And Implementation Of An Automatic Measurement System For The Characterization Of Power MOSFETs

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In this paper the design and implementation of an automatic measurement system for the characterization of power MOS-FETs is described. Such system allows to obtain a complete characterization of the MOSFET regardless of the final application, totally automated and thus a fast and cheap response to the industrial requests.
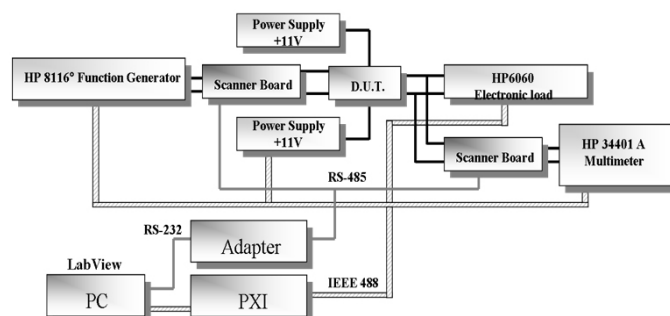
Block diagram of the automatic measurement system.

14AS112 Application of intelligent instruments for the monitoring of thrust reverse noise at airports

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Many airports all over the world have established some kind of restrictions for the use of thrust reverse for slowing down aircraft after landings, especially during the night period, as a way of reducing noise impact and the number of complaints in the vicinity of airports. This is the case of Madrid airport, where the Universidad Politécnica de Madrid, in collaboration with AENA, and the Politecnico di Milano have been researching, and developing intelligent instruments to improve the detection and classification of thrust reverse noise among other noise sources present in the airport.

Based on a traditional approach, the TREND (thrust reverse noise detection) tool detects two consecutive sound events, and applies pattern recognition techniques for the classification of each of them, such as landing and thrust reverse. A second improvement refers to the use of a microphone array linked to a noise monitoring unit, which enables tracking the direction of the arrival of the sound, thus improving the classification rates. By taking the latter, it is also possible to track the location of the aircraft along the runway, which enables sound pressure measurements to be transformed into sound power level estimations, thereby enhancing events and improving their detection. Although TREND must be optimized and customized, the results have shown quite good classification rates (over 90%).