

CURRENT TRENDS IN MINERAL PROCESSING INSTRUMENTATION

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ABSTRACT

Accurate and reliable process measurement is critical to the ongoing productive operation in any mineral processing plant. Key to any successful automation project is the correct application of the most appropriate field devices. Many types of instrumentation and continuous weighing equipment that might be installed in an ordinary process plant are not suitable for the harsh environment encountered in the mining industry. In particular, the industry is recognized as having some of the most difficult level measurement applications to solve given dusty atmospheres in silos/bins as well as turbulence and foam in slurry applications. This presentation addresses the proper application, use, and maintenance of typical field devices and demonstrates these by providing specific examples from the mineral processing industry. It also looks at future trends in smart sensors as well as wireless communications which offer potential benefits to the user.