

## Small Vibration Measurement of Plant Equipment Using Sampling Moire Camera

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**Abstract:** A sampling moire camera was developed by authors to measure the displacement of large structures effectively. The sampling moire camera was applied to small vibration measurement of a plant equipment in this paper. An algorithm of a sampling moire method is assembled into the sampling moire camera. It is very convenient to use the sampling moire camera in a practical field outdoors because any calibration is not necessary. This camera can measure the 2-D displacement in real-time. An experiment to measure small vibration of a moving conveyor belt to carry materials in a steel plant was performed. A frequency analysis and of the object was also performed.