

Development of a Remote Testing System for Performance of Gas Leakage Detectors

Authors : Gyoutae Park, Woosuk Kim, Sangguk Ahn, Seungmo Kim, Minjun Kim, Jinhan Lee, Youngdo Jo, Jongsam Moon, Hiesik Kim

Abstract : In this research, we designed a remote system to test parameters of gas detectors such as gas concentration and initial response time. This testing system is available to measure two gas instruments simultaneously. First of all, we assembled an experimental jig with a square structure. Those parts are included with a glass flask, two high-quality cameras, and two Ethernet modems for transmitting data. This remote gas detector testing system extracts numerals from videos with continually various gas concentrations while LCDs show photographs from cameras. Extracted numeral data are received to a laptop computer through Ethernet modem. And then, the numerical data with gas concentrations and the measured initial response speeds are recorded and graphed. Our remote testing system will be diversely applied on gas detector's test and will be certificated in domestic and international countries.

Keywords : gas leak detector, inspection instrument, extracting numerals, concentration

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