Research on self-healing and self-calibration for a new intelligent vehicle detector

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Abstract: To acquire traffic status of roads, self-healing and self-calibration techniques for a new intelligent vehicle detector were studied. The vehicle detector uses geomagnetic sensors as their sense organ. By pulsing a large current through the set/reset strap in geomagnetic sensor the selfhealing of the detector sensitivity was implemented. By driving a defined current through offset strap in geomagnetic sensor the self-calibration was brought to success. Experiments on self-healing and self-calibration were carried out, experiments results show that the techniques above mentioned can solve self-healing and self-calibration problems for the intelligent vehicle detector. © 2011 IEEE.
Author Keywords: Geomagnetic sensor; Intelligent instrument; Self-calibration; Selfhealing

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