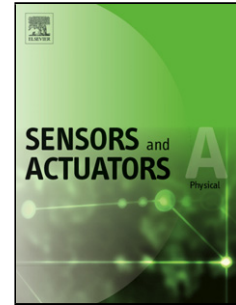


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Authors: Durga Nand Mahaseth, Lokesh Kumar, Tarikul Islam



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An efficient signal conditioning circuit to piecewise linearizing the response characteristic of highly nonlinear sensors

Durga Nand Mahaseth¹, Lokesh Kumar¹, Tarikul Islam*

¹Electrical Engineering Dept. F/O Engg. & Technology, Jamia Millia Islamia (University), Jamia Nagar, New Delhi – 110025, India,

*corresponding author, Email:tislam@jmi.ac.in, Phone: +91 011 26982574 Fax: +91 011-26982651.

Highlights

- A new and simple piecewise linearizing circuit was developed to compensate highly nonlinear response of the sensor.
- The basic principle of this technique is to compensate nonlinear response through a mixed signal conditioning unit including 2 bits flash type ADC.
- Humidity sensor was fabricated by graphene oxide thin film.
- The proposed scheme was verified with response of second order polynomial, thermistor-based temperature sensor and graphene oxide-based humidity sensor.
- Less than 1% of nonlinearity has been achieved through this proposed scheme.

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