FLOW MEASUREMENT AND INSTRUMENTATION

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DESCRIPTION

Flow Measurement and Instrumentation is dedicated to disseminating the latest research results on all aspects of flow measurement, in both closed conduits and open channels. The design of flow measurement systems involves a wide variety of multidisciplinary activities including modelling the flow sensor, the fluid flow and the sensor/fluid interactions through the use of computation techniques; the development of advanced transducer systems and their associated signal processing and the laboratory and field assessment of the overall system under ideal and disturbed conditions.

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Modelling: the application of mathematical and computational modelling to the interaction of fluid dynamics with flowmeters, including flowmeter behaviour, improved flowmeter design and installation problems. Application of CAD/CAE techniques to flowmeter modelling are eligible.

Design and development: the detailed design of the flowmeter head and/or signal processing aspects of novel flowmeters. Emphasis is given to papers identifying new sensor configurations, multisensor flow measurement systems, non-intrusive flow metering techniques and the application of microelectronic techniques in smart or intelligent systems.

Calibration techniques: including descriptions of new or existing calibration facilities and techniques, calibration data from different flowmeter types, and calibration intercomparison data from different laboratories.

Installation effect data: dealing with the effects of non-ideal flow conditions on flowmeters. Papers combining a theoretical understanding of flowmeter behaviour with experimental work are particularly welcome.

Multiphase behaviour: whether purpose-designed, or adapted from single-phase operation, coverage of systems for single-phase liquid and gas flows, multiphase flows having solid, liquid and gas phases, and slurries and pastes is equally welcome.

Associated measurements and secondary instrumentation: for example, density, viscosity and secondary instrumentation effects.

All contributions are subject to peer review, and additional features include:
Flow Measurement and Instrumentation is essential reading for instrumentation engineers in the oil, gas, power, chemical, food, water and waste treatment industries, manufacturers of flowmeters, and academics involved in research in this area.

AUDIENCE

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Description
Flow Measurement and Instrumentation is dedicated to disseminating the latest research results on all aspects of flow measurement, in both closed conduits and open channels. The design of flow measurement systems involves a wide variety of multidisciplinary activities including modelling the flow sensor, the fluid flow and the sensor/fluid interactions through the use of computation techniques; the development of advanced transducer systems and their associated signal processing and the laboratory and field assessment of the overall system under ideal and disturbed conditions. FMI is the essential forum for critical information exchange, and contributions are particularly encouraged in the following areas of interest:

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Associated measurements and secondary instrumentation: for example, density, viscosity and secondary instrumentation effects.

All contributions are subject to peer review, and additional features include:

- Review articles
- Case studies
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Flow Measurement and Instrumentation is essential reading for instrumentation engineers in the oil, gas, power, chemical, food, water and waste treatment industries, manufacturers of flowmeters, and academics involved in research in this area.

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