Press Release

InfraTec GmbH Infrarotsensorik und Messtechnik

Dresden, 2024-01-05

Flow Analysis Using Thermal Imaging

Determine flow properties with infrared cameras

Thermography enables the analysis of flows by visualising characteristically thermal signatures, which are caused by different heat transfer coefficients. Thus, direction and strength but especially the type of flow – turbulent or laminar – can be determined. Therefore, thermography as a non-contact, area-based and imaging temperature measurement method is perfectly suited to detect even the smallest flow-induced temperature gradients of less than 15 mK without influencing the flow behaviour itself.

So, thermography consequently is a good choice to be applied within the field of aerodynamic optimisation, for example in reducing flow resistance on aircraft wings or rotor blades of wind power turbines. Besides this, thermography is also an excellent testing and measuring method in other areas of flow analysis. With its help, disturbing geometric influences on the flow-related heat exchange in convection-based cooling systems can be detected and subsequently eliminated. In the context of environmental and geological studies, the thermographic method enables, among other things, the large-scale analysis of natural or urban microclimates and thus allows conclusions to be drawn about local conditions.

In InfraTec's online event "Flow Analysis Using Thermal Imaging" we will inform you about possible applications of thermography in the context of flow analysis.

Online Event

“Flow Analysis Using Thermal Imaging”

Date: Wednesday, 21 February 2024 / Time: 10:00 AM – 12:00 PM (CET)

Technical Lecture from Thermography Practice

“A Non-Intrusive Particle Temperature Extraction Methodology
Using Infrared and Visible-Image Sequences for High-Temperature Particle Plumes”

by

Jesus D. Ortega, PhD, MSME, MBA
Visiting Research Professor
Anderson School of Business and School of Engineering
The University of New Mexico, USA

Register here for the online event

https://register.gotowebinar.com/register/3075272399416786 82?PR-extern

Information: **1,817 characters (incl. spaces)**

About InfraTec

The InfraTec infrared sensor and measurement technology company was founded in 1991 and has its headquarters in Dresden, Germany. The privately held company employs more than 240 employees and has its own design, manufacturing and distribution capabilities.

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InfraTec GmbH Infrarotsensorik und Messtechnik

With its infrared measurement business unit, InfraTec is one of the leading suppliers of commercial thermal imaging technology. In addition to the high-end camera series ImageIR® and the VarioCAM® High Definition series, InfraTec offers turnkey thermographic automation solutions e.g. for industry processes, non-destructive testing and fire detection and prevention.

The infrared sensor division produces custom-made components on more than 1,600 m² of clean room space – especially pyroelectrical infrared detectors – for clients worldwide. The product range includes analogue single and multi-channel detectors as well as digital multi-channel detectors (PyrIQ). The detectors are used, for example, in gas analysis, fire and flame sensors and spectroscopy.

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Image:

Online Event: “Flow Analysis Using Thermal Imaging”

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