

**16th Conference
Infrared Thermography and Thermometry
September 23-25, 2025**

Final program

Tuesday 23.09.2025 – The School of Thermography	
7³⁰-8³⁰	Breakfast
9⁰⁰-10⁰⁰	Registration for the School of Thermography/Coffee
10⁰⁰-10¹⁰	Opening
10¹⁰-11¹⁰	Evolution in the development of infrared detector arrays A. Rogalski
11¹⁰-12¹⁰	Thermal modeling and thermal imaging measurements of multilayer structures M. Strąkowska, G. De Mey, B. Więcek
13⁰⁰-14³⁰	Lunch
14³⁰-15³⁰	Review of the Single-Pixel Camera Imaging K. Szajewski, A. Szajewska, S. Urbaś, B. Więcek
15³⁰-16³⁰	Errors and uncertainties in IR techniques R. Olbrycht
16³⁰-17³⁰	Thermography for gas leak detection R. Olbrycht, M. Kałuża
17³⁰-18⁰⁰	Coffee
19⁰⁰-21⁰⁰	Dinner

Wednesday 24.09.2025 – 1 st day	
7 ³⁰ -8 ³⁰	Breakfast
8 ⁰⁰ -9 ⁰⁰	Registration
9 ⁰⁰ -9 ¹⁰	Opening
9 ¹⁰ -9 ⁵⁰	Keynote lecture
	Infrared HOT detectors in the next decade A. Rogalski, M. Kopytko, P. Martyniuk
9 ⁵⁰ -11 ¹⁰	Session 1 – Measurements and methods
	9 ⁵⁰ -10 ¹⁰ High-temperature calibration of thermal imaging camera over a wide spectral range T. Sosnowski, S. Gogler
	10 ¹⁰ -10 ³⁰ Measurements of the emissivity of flat surfaces in the mid and long infrared range S. Gogler, T. Sosnowski, A. Ligienza
	10 ³⁰ -10 ⁵⁰ Determination of the NETD parameter value of the imaging system with a single MWIR detector for CO ₂ detection S. Urbaś, R. Olbrycht, B. Więcek
	10 ⁵⁰ -11 ¹⁰ Determination of the thermal diffusivity of solids using the long pulse method by fitting the temperature curve to a theoretical model T. Kasprzak, S. Gryś
11 ¹⁰ -11 ³⁰	Coffee break
11 ³⁰ -12 ⁵⁰	Session 2 – Applications
	11 ³⁰ -11 ⁵⁰ The use of thermal cameras to detect and track visual markers in conditions of limited visibility using artificial intelligence methods M. Leplawy, J. Zdanowicz – Zasidko, P. Lipinski, B. Morawska
	11 ⁵⁰ -12 ¹⁰ Detection and localization of objects using area scanning with a low-resolution thermal camera K. Erd, K. Sawicki,
	12 ¹⁰ -12 ³⁰ Radio and Optical Communication of Unmanned Aerial Vehicles: A Review of Solutions K. Szajewski, A. Szajewska, D. Celejewski
	12 ³⁰ -12 ⁵⁰ Loss-resilient Thermal Image Fragmentation for LoRaMesh IoT Networks K. Sawicki, T. Sosnowski, M. Mścichowski
12 ⁵⁰ -14 ¹⁰	Lunch
14 ¹⁰ -15 ³⁰	Session 3 – Gas detection, imaging and measurement
	14 ¹⁰ -14 ³⁰ Detection and quantification of undesirable methane emissions - analysis of the possibilities of hyperspectral technology M. Kastek
	14 ³⁰ -14 ⁵⁰ Thermal contrast model for optical gas imaging performance analysis R. Olbrycht
	14 ⁵⁰ -15 ¹⁰ Measurement of Methane Combustion Products in Industrial Degassing Flares A. Ligienza, M. Kastek, K. Firmanty, J. Holewa-Rataj M. Rataj, S. Rzydzik
	15 ¹⁰ -15 ³⁰ Non-destructive testing of composite helmets using ultrasonic thermography W. Świderski
15 ³⁰ -16 ³⁰	Exhibitors session
18 ⁰⁰ -19 ³⁰	Guided walk along Piotrkowska street
19 ³⁰ -22 ⁰⁰	Dinner

Thursday 25.09.2025 – 2 nd day		
7 ³⁰ -8 ³⁰	Breakfast	
9 ⁰⁰ -10 ²⁰	Session 4 – Biomedical applications	
	9 ⁰⁰ -9 ²⁰	The use of thermography in the assessment of physical therapy devices in racehorses M. Soroko-Dubrovina, P. Zielińska, K. Śniegucka, K. Nawrot, M. Drewka
	9 ²⁰ -9 ⁴⁰	The role of terminography in monitoring skeletal adaptation in young racehorses K. Śniegucka, M. Soroko-Dubrovina, P. Zielińska, K. Dudek
	9 ⁴⁰ -10 ⁰⁰	Analysis of dual-phase lag heat transfer in a skin tissue using multilayer analytical and compact models M. Strąkowska, G. De Mey, B. Więcek
	10 ⁰⁰ -10 ²⁰	Thermal mapping of a reconstructed 3D human foot using machine learning algorithms B. Sztylek, B. Torzyk
10 ²⁰ -10 ³⁵	Coffee break	
10 ³⁵ -12 ¹⁵	Session 5 – Applications to electronics	
	10 ³⁵ -10 ⁵⁵	Selected Resonant Topologies for Non-wireless and Wireless Power Transfer R. Kasikowski
	10 ⁵⁵ -11 ¹⁵	Review of Common Power Factor Correction Topologies in Switch-Mode Power Supplies R. Kasikowski
	11 ¹⁵ -11 ³⁵	Measurement of the Junction Temperature of Light-Emitting Diodes Based on Thermographic Measurement of the Case Temperature A. Hulewicz, K. Dziarski
	11 ³⁵ -11 ⁵⁵	Verification of the die temperature of a SiC transistor based on thermal imaging and machine learning K. Dziarski, A. Hulewicz
11 ⁵⁵ -12 ¹⁵	Heat generation during discharging of PEDOT:PSS cells deposited on textile substrates G. De Mey, M. Łoniewski, S. Odhiambo, C. Hertleer, L. Vanlangenhove	
12 ¹⁵ -12 ³⁰	Coffee break	
12 ³⁰ -13 ⁵⁰	Session 5 – Applications	
	12 ³⁰ -12 ⁵⁰	Investigation of the influence of alloy additions and processing on electromagnetic properties and readings from an eddy current flaw detector M. Milczarek
	12 ⁵⁰ -13 ¹⁰	Application of the IREC system for cooling power electronics in conditions of high ambient temperatures M. Felczak, D. Levchenko, M. Kałuża, R. Olbrycht, B. Więcek
	13 ¹⁰ -13 ³⁰	Review of recent advancements in PINNs for solving complex thermodynamic problems J. Piskozub
13 ³⁰ -13 ⁵⁰	Thermal imaging as a tool for monitoring the movement of metallurgical slag on the surface of liquid metal M. Borecki, R. Zybala, M. Dudek, G. Krawiec	
13 ⁵⁰ – 14 ⁰⁰	Closing address	
14 ⁰⁰	Lunch	

Posters

Detection of early stages of diseases in pigs using a mobile thermal imaging camera

P. Kielanowski, D. Kamińska

Detecting early stages of disease in cows using an infrared camera

P. Kielanowski, D. Kamińska