

**12th Conference on „IR Thermography and thermometry – TTP”
„JAWOR” Wczasowa 51, 43-450 Ustroń/Jaszowiec, tel. 33 854 23 93**

September 27-29, 2017

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| Tuesday 26.09.2017 r. – Registration | |
| 18⁰⁰-21⁰⁰ | Registration |
| 19³⁰-21⁰⁰ | Dinner |
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| Wednesday 27.09.2017 – The School of Thermography | |
| 8⁰⁰-8⁴⁵ | Breakfast |
| 8⁰⁰-9⁴⁵ | Registration for the School of Thermography |
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| 10⁰⁰-10¹⁰ | Opening |
| 10¹⁰-11¹⁰ | Thermography measurements in practice M. Kałuża, R. Olbrycht Politechnika Łódzka |
| 11¹⁰-11⁴⁰ | Coffee break |
| 11⁴⁰-12⁴⁰ | Spectrometry in infrared spectrum using IR cameras R. Olbrycht, M. Kałuża Politechnika Łódzka |
| 13⁰⁰-14⁰⁰ | Lunch |
| 14³⁰-15³⁰ | Thermography in NDT – new trends B. Więcek Politechnika Łódzka |
| 15³⁰-16³⁰ | Practical exercises with IR cameras R. Olbrycht, M. Kałuża, R. Strąkowski Politechnika Łódzka |
| 16³⁰-18⁰⁰ | Exhibition of thermography equipment and software |
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| 19⁰⁰-22⁰⁰ | Dinner under the grill tent |

| Thursday 28.09.2017 – 1st day | |
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| 8⁰⁰-8⁴⁵ | Breakfast |
| 8⁰⁰-9⁰⁰ | Registration |
| 9⁰⁰-9¹⁰ | Opening |
| 9¹⁰-10³⁰ | Keynote lectures |
| | 9¹⁰-9⁵⁰ 25 years of TTP Conference P. Pręgowski, B. Więcek |
| | 9⁵⁰-10³⁰ Applications of Raman scattering in biomedicine, telecommunication and thermometry H. Abramczyk, M. Kopeć |
| 10³⁰-11³⁰ | Session 1 – Measurements and methods |
| | 10³⁰-10⁵⁰ Distributed Temperature Sensing in Optical Fibers based on Raman Scattering: Theory and Applications I. S. M. Shatarah, R. Olbrycht |
| | 10⁵⁰-11¹⁰ A new software tool for transient thermal analysis based on fast IR camera temperature measurement P. Chatzipanagiotou, M. Strąkowska, G. De Mey, V. Chatziathanasiou, B. Więcek, M. Kopeć |
| | 11¹⁰-11³⁰ Multi-function analysis of hyperspectral data P. Rutkowski, M. Kastek, H. Madura, T. Sosnowski |
| 11³⁰-12⁰⁰ | Coffee break |
| 12⁰⁰-13⁰⁰ | Session 2 – Material characterization |
| | 12⁰⁰-12²⁰ Comparative assessment of heat insulation properties of thermal resistant paints with use of infrared camera T. Kruczek, I. Szczygieł, G. Kruczek, P. Kowalczyk |
| | 12²⁰-12⁴⁰ In-plane and in-depth thermal diffusivity measurement of GaAs wafer using lock-in thermography and photothermal infrared radiometry M. Pawlak, M. Streza, K. Ramza, K. Strzałkowski |
| | 12⁴⁰-13⁰⁰ Evaluation of Selected Thermal Properties of Components of Bonded Joint for Purposes of Active Thermography M. Fidali, T. Kruczek, M. Kurpiński |
| 13⁰⁰-13³⁰ | Poster session – near the lunch room |
| 13³⁰-14³⁰ | Lunch |
| 14³⁰-15³⁰ | Session 3 – Applications |
| | 14³⁰-14⁵⁰ Determining the burnt area based on digital processing and image analysis A. Szajewska |
| | 14⁵⁰-15¹⁰ Image Processing of Leaks Detection in Sequence of Infrared Images B. Bukowska-Belniak, A. Leśniak |
| | 15¹⁰-15³⁰ Work on Developing a Thermal Shooting Target W. Świdorski, P. Hłosta, G. Polak, D. Tymiński |
| 15³⁰-16⁰⁰ | Coffee break – Meeting of KTCP-POLSPAR |
| 16⁰⁰-17³⁰ | Exhibitors' session (presentations and demonstrations) |

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| 17³⁰-19⁰⁰ | <p>Historical session – The beginnings of TTP in the 70s (chairman dr P. Pręgowski)</p> <p>Invited speakers: Prof. A. Nowakowski (Politechnika Gdańska), doc. S. Poloszyk (Politechnika Poznańska), prof. A. Ciołkosz, (IGIK, OPOLIS), dr B. Kajewski (GIG), dr Z. Rymarczyk (WSI Radom), eng. A. Szopa (ENERGOPOMIAR Gliwice)</p> <p>Thematic panels: <u>Pyrometers (GIG), first IR cameras and scanners - pioneer works</u> (Politechnika Gdańska, Politechnika Warszawska, Politechnika Poznańska, WAT). <u>First applications:</u> aerial and satellite thermography in ecology, agriculture and other domains, power and heating systems, applications in industry, medicine and R&D.</p> <p>And also, information on the first camera buyers, conferences, seminars, publications and academic lectures.</p> |
| 20⁰⁰-23⁰⁰ | Dinner |

| Friday 29.09.2017– 2 nd day | |
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| 8 ⁰⁰ -9 ⁰⁰ | Breakfast |
| 9 ⁰⁰ -10 ³⁰ | Keynote lectures |
| | 9 ⁰⁰ -9 ³⁰ A special place for functional tests in medical diagnostics on the example of thermography S. Z. Górski |
| | 9 ³⁰ -10 ⁰⁰ Review of research on thermal problems in medical thermography A. Nowakowski |
| | 10 ⁰⁰ -10 ³⁰ History of Application of Thermovision in Fire Protection System in Poland A. Szajewska, J. Rybiński |
| 10 ³⁰ -11 ⁰⁰ | Coffee break |
| 11 ⁰⁰ -12 ¹⁰ | Session 4 – IR Systems and thermal image processing |
| | 11 ⁰⁰ -11 ²⁰ Selected chemical substances detection using dual-band thermal imaging camera with microbolometer infrared focal plane array detectors A. Ligienza, G. Bieszczad, S. Gogler |
| | 11 ²⁰ -11 ⁵⁰ Device for Emissivity Estimation in LWIR range R. Olbrycht |
| | 11 ⁵⁰ -12 ¹⁰ Thermal Camera System Integrated into Firefighter Helmet T. Sosnowski, H. Madura, G. Bieszczad, M. Kastek |
| 12 ¹⁰ -13 ¹⁰ | Session 5 – Applications |
| | 12 ¹⁰ -12 ³⁰ Impact of the Fringing Effect on Temperature Distribution in Windings and Physical Properties of Toroidal Ferrite Inductors with a Dual Air Gap R. Kasikowski |
| | 12 ³⁰ -12 ⁵⁰ Method of Tracking of HAZ Properties based on Sequence of Infrared Images M. Fidali |
| | 12 ⁵⁰ -13 ¹⁰ Thermographic Monitoring of the Power Transformers A.Lisowska-Lis |
| 13 ¹⁰ -13 ²⁰ | Closing address |
| 13 ³⁰ -14 ³⁰ | Lunch |
| 14 ³⁰ -20 ⁰⁰ | Excursion to the Adam Malysz ski jumping hill and the Residence of the President of the Republic of Poland "The Castle" – National Heritage Complex in Wisła |
| 20 ⁰⁰ -21 ⁰⁰ | Supper |

| Saturday 30.09.2017 | |
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| 8 ⁰⁰ -9 ⁰⁰ | Breakfast |

Poster session – opened during the whole Conference

- 1. Appointing of topography parameters to describe the diffuse reflective and emissive properties of selected dielectrics**
R. Majchrowski, L. Różański, K. Grochalski
- 2. Detection of material defects in reinforced concrete slab using active thermography**
L. Różański, K. Ziopaja
- 3. Sensitivity analysis of the specific heat and thermal conductivity values on pore pressure and temperature distribution within embankment**
A. Franczyk
- 4. Distributed Temperature Sensing in Optical Fibers based on Raman Scattering: Demodulation Algorithms**
I.S. M. Shatarah, R. Olbrycht
- 5. Spektroskopia Ramana w medycynie, farmacji i meteorytyce**
M. Kopeć, B. Brożek-Płuska, H. Abramczyk
- 6. Gas Leaks Detection Using Passive Thermal Infrared Hyperspectral Imaging**
P. Lagueux, P. Tremblay, V. Morton, M. Chamberland, V. Farley, M.Kastek, K. Firmanty
- 7. High-Speed Infrared Imaging for Analysis of a Diesel Engine Supplied with a Premixed Methane-Air Charge**
P. Lagueux, P. Tremblay, S. Savary, V. Farley, E. Mancaruso, L. Sequino, M. Kastek, K. Firmanty
- 8. A simplified model of parasitic radiation in IR bolometer camera**
R. Strąkowski, B. Więcek
- 9. Convection and Radiation Cooling of Overhead Power Lines - Laboratory Verification using Thermography**
P. Chatzipanagiotou, M. Felczak, G. De Mey, V. Chatziathanasiou, B. Więcek
- 10. Test stand and procedures for estimating parameters of microbolometer detector**
M. Krupiński, K. Chmielewski, J. Bareła, M. Kastek
- 11. An application of a dynamic thermography for studying a relation between thermal and mechanical activities of a skeletal muscle during a static load**
D. Radomski, K. Kruszewski
- 12. Analiza możliwości wykorzystania metody TSR do oceny gojenia ran w Termografii Dynamicznej**
M. Kaczmarek

- 13. Application of infrared thermography for evaluation of patch test results**
B. Tomaka, M. Szwedo
- 14. Compression of High Dynamic Infrared Image using Auto Aggregation Algorithm**
M. Fidali, W. Jamrozik
- 15. Foreground extraction in images obtained in active thermography**
M. Kurpiński, W. Jamrozik
- 16. Recognizing the authenticity of the postal envelopes sealing using IR thermography and thickness measurement**
M. Kopec
- 17. Detection of inner defects in industrial pipelines using transient IR thermography**
M. Kopec, P. Chatzipanagiotou, G. De Mey, B. Więcek
- 18. Industrial pipeline inspection approach with infrared camera and mirror system**
M. Kopec, R. Olbrycht
- 19. Examining the Degradation Process of the Heat/Cold Protecting Insulation Applied for Construction of Cooling Bodies Under the Influence of Water**
T. Rochatka
- 20. Termograficzna ocena rozdzielnic napowietrznej 110 kV izolowanej sześćfluorkiem siarki SF6 (moduł PASS 110 kV)**
G. Dybka
- 21. Badania termowizyjne urządzeń energetycznych**
K. Marciniak, M. Kopec
- 22. The use of IR thermography for testing the operation parameters of plate steel and accumulative wood stoves**
M. Żołądek, K. Sornek, A. Boroń, S. Nabożna, M. Filipowicz
- 23. Rydwany ognia**
A. Szajewska, J. Rybiński, D. Baranowski