

**Program Sympozjum Wymiany Ciepła i Masy 2019 r.**

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| **Dzień 1 (poniedziałek 16.09.2019 r.)** |
| **1500 – 2000** | **Rejestracja uczestników** |
| **1800 – 1900** | **Kolacja** |
| **1900** | **Party Powitalne** |
| **Dzień 2 (wtorek 17.09.2019 r.)** |
| **Od 730**  | **Rejestracja uczestników** |
| **730 – 900** | **Śniadanie** |
| **915 – 930** | **Otwarcie Konferencji****JM Rektor Politechniki Koszalińskiej prof. dr hab. inż. Tadeusz Bohdal** |
| **Sesje Plenarne (930 – 1215)** |
| **930 – 1030** | **Sesja Plenarna I*** **Prof. dr hab. inż. Dariusz Mikielewicz:** *Modelowanie podkrytycznej i nadkrytycznej wymiany ciepła w przepływie za pomocą energii dyssypacji*. Politechnika Gdańska.
* **Prof. dr hab. inż. Roman Domański:** *Broń laserowa - Techniki ochrony przed bronią laserową*. Sieć Badawcza Łukasiewicza Instytut Lotnictwa Warszawa
* **Dr Adam Wyszomirski:** *Ciepłownictwo 2020. Problem z diagnozowaniem przyszłości*. Miejska Energetyka Cieplna Koszalin
 |
| **1030 – 1130** | **Sesja Plenarna II - zagadnienia termodynamiczne*** **P. Cyklis, R. Duda:** Analysis of a long-term exploitation of the solar powered hybrid adsorption-compression refrigeration cycle
* **J. Wajs, R. Bochniak, A. Gołąbek:** *Proposal of a mobile medical waste incinerator with automatic waste feeder end heat recovery system*
* **P. Łapka, M. Wasik:** *Analysis of temperature distribution in outlet streams from industrial chimneys*
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| **1130 – 1145** | **Przerwa kawowa** |
| **1145 – 1315** | **Sesja Plenarna III - zagadnienia wymiany ciepła i masy*** **S. Sowa:** *The potential use of solar energy to improve energy efficiency of the facility*
* **K. Wojtasik, J. Koziczak, Z. Krolicki, B. Zajączkowski**: *Experimental study on heat transfer coefficients of a thermosyphon filled with R134a*
* **D. Taler , J. Taler, M. Trojan, P. Dzierwa:** *Performance calculations of plate-fin-and-tube heat exchangers with various heat transfer coefficients on individual tube row*
* **M. Tychanicz-Kwiecień, P. Gil, R. Smusz:** *The design of experimental set-up for testing of heat exchangers*
* **M. Stebel, J. Smołka, M. Palacz, E. Piechnik, W. Adamczyk:** *Experimental and numerical study on the hydrofluidisation food freezing*
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| **1315 – 1500** | **Obiad** |
| **Sesja Posterowa I (1500 – 1645)** |
| **1645 – 1700** | **Podsumowanie Sesji Posterowej I** |
| **1700 – 1900** | **Czas wolny** |
| **1900 – 2400** | **Uroczysta kolacja** |
| **Dzień 3 (środa 18.09.2019 r.)** |
| **730 – 900** | **Śniadanie** |
| **Sesje Plenarne (915 – 1130)** |
| **915 – 1100** | **Sesja Plenarna IV - zagadnienia związane z minikanałami cz. 1*** **K. Strąk, M. Piasecka:** Impact of the surface enhancement with a laser texturing on the FC -72 flow boiling heat transfer in a minichannel
* **S. Halon, B. Zajączkowski, Z. Królicki:** Pressure drop in small-scale channels with R245fa and R235fa as working fluids
* **M. Grabowski, S. Hożejowska, M. E. Poniewski:** *Trefftz method-based identification of heat transfer coefficient and temperature fields in flow boiling in an asymmetrically heated rectangular mini-channel*
* **M. Piasecka, A. Piasecki, S. Hożejowska:** Steady-state flow boiling heat transfer in a minichannel heat sink
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| **1100 – 1115** | **Przerwa kawowa** |
| **1115 – 1300** | **Sesja Plenarna V - zagadnienia związane z minikanałami cz.2*** **R. Kaniowski, R. Pastuszko:** *Investigations of water pool boiling on open microchannel surface*
* **R. Kaniowski, R. Pastuszko:** *Bubble departure diameter during pool boiling from enhanced surface with microchannel*
* **W. Kuczyński, A. Denis, H. Charun:** *Singular pressure instabilities during condensation of R404A and its substitutes inside tubular minichannels*
* **P. Dąbrowski, M. Klugmann, D. Mikielewicz:** Flow maldistribution and its mitigation in mini heat exchangers
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| **1300 – 1400** | **Obiad** |
| **Sesja Posterowa II (1400 – 1515)** |
| **1515 – 1530** | **Podsumowanie Sesji Posterowej II** |
| **1600 – 1800** | **Program socjalny (Rejs statkiem + degustacja regionalnego piwa Colberg Kołobrzeska Fabryka Piwa)** |
| **1900 – 2400** | **Kolacja Grillowa** |
| **Dzień 4 (czwartek 19.09.2019 r.)** |
| **730 – 900** | **Śniadanie** |
| **Sesje Plenarne (915 – 1015)** |
| **915 – 1100** | **Sesja Plenarna V - elektrownie, elektrociepłownie i silniki*** **B. Rutczyk, I. Szczygieł, Z. Buliński:** *Evaluation of internal heat transfer models for stirling engines within a real gas, second order thermodynamic model*
* **D. Piwowarski, S. Anweiler, S. Pochwała,R. Ulbrich:** *Surface defects detection of industrial chimneys with unmanned aerial vehicles and infrared thermography*
* **J. Kapuściński, R. Domański:** *Method for efficient feasibility study of air cooling systems for modern PMSM electric motors in all-electric aviation*
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| **1100 – 1115** | **Podsumowanie sesji plenarnych** |
| **1115 – 1130**  | **Zakończenie Konferencji** |
| **1300 – 1500** | **Obiad** |
| **Od 13.00** | **Wyjazd Uczestników Konferencji** |

**Sesja Posterowa I - 17.09.2019 r.**

1. **J. T. Cieśliński:** *Application of nanofluids in thermal technologies*
2. **K. Pietrak, P. Łapka, M. Kujawińska:** *Numerical tests of an inverse method for the characterization of pulsed and continuous laser beams*
3. **R. Matysko, J. Mikielewicz:** *Theoretical model and experimental studies on time response of thermistor temperature sensors during their contact with the skin surface of index finger.*
4. **M. Jaworski, P. Krukowski:** *Experimental and numerical investigation of heat sink with phase change material for electronics cooling*
5. **S. Serbin, A. Kozlovskyi, K. Burunsuz, R.Radchenko:** *Study of burning stability in low emission gas turbine combustor*
6. **Z. Zapałowicz:** *Estimation of reflectivity of roofing material on the basis of experimental data*
7. **S. Duer:** *Diagnostic of a low-capacity hybrid power station equipment with four-valued logic*
8. **S. Duer:** *Functional and diagnostic structure of low-capacity hybrid power station equipment*
9. **K. Dutkowski, J. Fiuk, M. Kruzel, M. Witczak:** *Experimental investigation on the rheological properties of microencapsulated PCM slury*
10. **M. Ciałkowski, A. Olejnik, A. Frąckowiak, N. Lewandowski**: *Monitoring of thermal loads as the cauchy problem*
11. **T. Bohdal:** *One – dimensional model of bubble boiling in channel flow*
12. **K. Zajkowski:** *Decomposition of current’s physical compacts in a flow – wires, three-phase systems for non-sinusoidal periodic waveforms*
13. **D. Konovalov, M. Radchenko, H. Kobalava, A. Andreev, V. Maksymov:** *Improvement of ejector refrigeration machine cycles by using thermopressor*
14. **D. Konovalov, H. Kobalava, R. Radchenko, A. Andreev, M. Pyrysunko, A. Dzhurynska:** *Research of the aerothrtmopressor cooling system of cyclic air of marine internal combustion engine under variable climatic conditions of operation*
15. **M. Orłowska:** *Laboratory stand for flow and energetic experimental research vertical heaters with free convection and the possibility of intensification*
16. **K. Rojcewicz, Z. Oksiuta:** *Design of a vertical convection dryer with analysis of the process parameters of drying the wood-based waste*
17. **W. Kuczyński, K. Wolniewicz, A. Zagubień:** *Evaluation of wind resources for horizontal and vertical wind turbine*
18. **I**. **Wiśniewska, W. Kuczyński:** *The investigation of filtrosorption process on model sewages*
19. **A.** **Sachajdak, Z. Buliński, I. Szczygieł, A. Fic, M. Rojczyk, A. Mańka:** *Experimental investigation and modelling of mechanical aeration system*
20. **Dorsz, A. Rusowicz, A. Prawdzik:** *Numerical investigation of fire resistance class of ventilation fans*
21. **A. Grzebielec**, **A.** **Szelągowski:** *Experimental verification of desiccant evaporative cooling system model*
22. **M. Klugmann, P. Dąbrowski, D. Mikielewicz:** *Flow boiling visualization in a minigap plate heat exchanger*

**Sesja Posterowa II – 18.09.2019 r.**

1. **Z. Ostrowski:** *Heat transfer and thermoregulation in human tissues*
2. **J. Wilk, S. Grosicki:** *Research difficulties in mass/heat transfer investigations with regard to compact mini-heat exchanger*
3. **R. Radchenko, A. Radchenko, D. Konovalov, A. Zubarev, A. Hrych, A. Andreev:** *Increasing fuel efficiency of gas engine by inlet air chilling*
4. **M. Radchenko, E. Trushliakov, A. Radchenko, S. Kantor, V. Tkachenko:** *Approach to enhance the energetic efficiency of air conditioning systems by cooling load distribution in ambient air procession*
5. **A. Radchenko, M. Radchenko, Y. Zongming, S. Kantor, B. Portnoi:** *Cooling gas turbine inlet air by accumulating and using cooling capacity in booster air cooler*
6. **M. Radchenko, V. Kornienko, R. Radchenko, I. Kalinichenko, M.Pyrysunko:** *Corrosion processes on the condensation surfaces of exhaust gas boilers with water-fuel emulsion combustion*
7. **S. Serbin, K. Burunsuz, N. Goncharova, A. Radchenko, R. Radchenko:** *Investigations of sulfur oxides formation and decomposition in a gas turbine combustor with steam injection*
8. **K. Czernek, S. Witczak:** *Hydrodynamics of gas-very viscous liquid down-flow in the conditions of heat transfer*
9. **A. Frąckowiak, D. Spura, U. Gumpe, M. Ciałkowski:** *Solution of inverse heat conduction problem with rising the trefftz function*
10. **P. Piątkowsk**i: *The impact of intake channel geometry on swirl generation inside-cylinder of internal combustion engine*
11. **M. Sikora:** *Condensation of HFE7100 and Novec649 refrigerant in pipe minichannel*
12. **M. Kruzel:** *An investigation of pressure drop during refrigerants condensation in vertical pipe minichannels*
13. **K. Widomska:** *The analysis of thermal and flow characteristics of the condensation of refrigerant zeotropic mixtures in minichannels*
14. **D. Taler, P. Dziarwa, J. Taler, M. Trojan:** *Optimum heating of pressure trick-walled components with openings*
15. **M. Radchenko, E. Trushliakov, A. Radchenko*:*** *Enhancing heat efficiency of air coolers of air conditioning systems by injector refrigerant circulation*
16. **M. Tychanicz-Kwiecień, P. Gil:** *Heat transfer performance of a special type heat sink with synthetic jet cooling*
17. **P. Ocłoń, P. Cisek, E. Kozak, J. Taler:** *Experimental testing of trucked and cooled PVT system*
18. **M. Pietrzak, M. Płaczek, S. Witczak:** *Loss coefficient for a sudden change of multi-phase flow direction in pipes*
19. **S. Wiśniewski, M. Jankowski, T. Kujawa:** *Influence of application of regenerative heat exchanger on utilization efficiency of heat source in ORC system*
20. **S. Wiśniewski, M. Jankowski:** *Application of genetic algorithm in performance optimization of ORC power plant*
21. **T. Bury:** *Thermal-hydraulic analysis of hydrogen passive autocatalytic recombiners operation by means of lumped parameter approach*
22. **T. Bury, M. Hanuszkiewicz-Drapała**: *FDM and CFD analysis of a cross-flow tube and fin heat exchanger with non-uniform structure of fins*