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5TH ANNUAL CONFERENCE OF YOUNG SCIENTISTS ON ENERGY ISSUES CYSENI 2008 May 29, 2008 Kaunas Lithuania

Morning session (Main Hall) Chairman A. Narkuniene	
8.30-9.00	Registration
9.00-9.20	Welcome
9.20-9.40	A. Bertasiene (Lithuanian Energy Institute). Peculiarities of air velocity measurements. Official reviewer: M. Seporaitis
9.40-10.00	T. Grinys (Kaunas University of Technology, Lithuania), S. Tamulevicius (Institute of Physical Electronics, Lithuania), I. Mockevičius (Kaunas University of Technology, Lithuania), M. Andrulėvicius, I. Prosycevas (Institute of Physical Electronics, Lithuania). Mechanical characterization of vacuum plasma sprayed YSZ-NiO-Ni ceramic coatings. Official reviewer: L. Marcinauskas
10.00-10.20	E. F. Dzenajaviene (Lithuanian Energy Institute). Strategic planning of biomass use for energy needs in regions: problems and opportunities of Kaunas county. Official reviewer: N. Pedisius
10.20-10.40	M. Povilaitis (Vytautas Magnus University, Lithuania). Simulation of plasma interaction with the first wall of thermonuclear reactor. Official reviewer: L. L. Pranevicius

10.40-11.00 Coffee break

Section A

Laikas	Energy efficiency and savings Section A1 (Main hall) Chairman V. Matuzas
11.00-11.20	V. Miseviciute , V. Martinaitis (Vilnius Gediminas Technical University, Lithuania). Exergy efficiency of recuperative air exchanger for summer conditions. Official reviewer: V. Kveselis
11.20-11.40	E. Jaraminiene (Vilnius Gediminas Technical University, Lithuania). Uncertainty analysis of infiltration evaluation from building thermal balance. Official reviewer: R. Alzbutas
11.40-12.00	G. Streckiene , V. Martinaitis (Vilnius Gediminas Technical University, Lithuania). Investigation of the impact of the heat storage size on its operation mode in small-scale cogeneration plants. Official reviewer: R. Gatautis

12.00-13.00 Lunch

Laikas	Energy efficiency and savings Section A2 (Main hall) Chairman A. Hlebnikov
13.00-13.20	L. Latkovskis, L. Grigans (Institute of Physical Energetics, Latvia). A method for estimation of the untapped regenerative braking energy in urban electric transport. Official reviewer: R. Staniulis
13.20-13.40	K. Plamus , T. Pihu (Tallinn University of Technology, Estonia). Firing Estonian oil shale fuel in CFB boilers. Official reviewer: A. Kavaliauskas
13.40-14.00	Z. Budjko (Riga Technical University, Latvia). Research of centralized hot water consumption research in a dwelling house. Official reviewer: G. Siupsinskas
14.00-14.20	R. Jecis (Riga Technical University, Latvia). Underfloor heating influence on thermal comfort by the glazed outside surfaces. Official reviewer: K. Ciuprinskas

14.20-14.40 Coffee break

Laikas	Energy efficiency and savings Section A3 (Main hall) Chairman A. Bertasiene
14.40-15.00	E. Shumskaya (A.V. Luikov Heat and Mass Transfer Institute, Belarus). Development of effective heat pump condenser. Official reviewer: K. Marcinauskas
15.00-15.20	A. Hlebnikov , A. Siirde, A. Paist (Tallinn University of Technology, Estonia). Efficiency of pipes' thermal insulation efficiency in Estonian district heating networks. Official reviewer: D. Strazdas
15.20-15.40	A. Hlebnikov , A. Siirde, A. Paist (Tallinn University of Technology, Estonia). The present water velocities and friction losses in Estonian old district heating networks and their difference from the optimum values. Official reviewer: N. Rasburskis
15.40-16.00	H. D. Mathur (Birla Institute of Technology and Science, India). Dynamic performance enhancement of thermal units with asynchronous tie-lines using intelligent controller. Official reviewer: A. Nemura

16.00-17.30 Final discussion and closure (Main Hall)

Section B

Laikas	Renewable energy sources and their use Section B1 (Room AK-202) Chairman D. Tarvydas
11.00-11.20	S. Orlova , V. Pugachov, N. Levin (Institute of Physical Energetics, Latvia). Magnetic field in toothed zone of an axial inductor machine (AIM). Official reviewer: A. Jonaitis
11.20-11.40	J. Grigoniene , M. Karnauskas (Klaipeda University, Lithuania). Mathematical modeling of optimal angles of tilt solar collector. Official reviewer: E. Perednis
11.40-12.00	B. Holm , K. Heinsoo (Estonian University of Life Sciences, Estonia). Renewable wood biomass production in willow short rotation coppice fertilised with coposted sewage sludge. Official reviewer: S. Vrubliauskas

12.00-13.00 Lunch

Laikas	Investigations in the fields of thermal physics, fluid analysis and metrology Section B2 (Room AK-202) Chairman A. Bertasiene
13.00-13.20	I. Briliute (Lithuanian Energy Institute). Comaparable evaluation of measurement accuracy of different construction water meters. Official reviewer: V. Ilgarubis
13.20-13.40	M. Valincius , M. Seporaitis (Lithuanian Energy Institute). Two phase flow with condensation in nearly horizontal channel experimental study and modeling. Official reviewer: R. Pabarcius
13.40-14.00	S. Gasiunas (Lithuanian Energy Institute). Investigation of steam-water flow in horizontal channel by alternation of condensation rate through interfacial surface. Official reviewer: J. Tonkonogij
14.00-14.20	J. Barzdziukas, E. Maslauskas (Lithuanian Energy Institute). Influence of water flow profile on turbine flowmeters. Official reviewer: M. Seporaitis

14.20-14.40 Coffee break

Laikas	Investigations in the fields of thermal physics, fluid analysis and metrology Section B3 (Room AK-202) Chairman M. Valincius
14.40-15.00	A. D. Chorny (A.V. Luikov Heat and Mass Transfer Institute, Belarus). Modelling of turbulent mixing in confined jet flows. Official reviewer: J. Tonkonogij
15.00-15.20	Yu. Zhukova (A. V. Luikov Heat and Mass Transfer Institute, Belarus), V. Zhdanov (University of Rostock, Germany), S. Isaev (St. Petersburg State University of Civil Aviation, Russia). Heat transfer enhancement in cross-flow past a bundle of in-line tubes with installed guide plates. Official reviewer: B. Cesna
15.20-15.40	B. F. Balunov (JSC „NPO CKTI“, Russia), V. A. Ilyin, E. N. Saykova (Saint-Petersburg State Polytechnic University, Russia). Experimental investigation of flow heat exchange and hydrodynamics in pebble bed consisting of simulators of spherical micro fuel elements Official reviewer: B. Cesna
15.40-16.00	T. A. Baranova , Yu.V. Zhukova (A. V. Luikov Heat and Mass Transfer Institute, Belarus) V.L. Zhdanov (University of Rostock, Germany). Numerical simulation of unsteady cross-flow past a circular cylinder at different Reynolds numbers. Official reviewer: M. Seporaitis

16.00-17.30 Final discussion and closure (Main Hall)

Section C

Laikas	Hydrogen and fuel cells Nanosciences and Nanotechnologies, investigations on multifunction materials Section C1 (Library) Chairman T. Grinys
11.00-11.20	A. Slavickas (Vytautas Magnus University Lithuania). Modeling of hydrogen adsorption and desorption of metal alloys. Official reviewer: A. Galdikas
11.20-11.40	N. V. Primak (A.V. Luikov Heat and Mass Transfer Institute, Belarus). Qualitative analysis of the length of the gas separation membrane unit in separating hydrogen from synthesis-gas. Official reviewer: D. Milčius
11.40-12.00	T. Janulaitis , L. Paulauskas (Kaunas University of Technology Lithuania). Analysis of new thermo insulation material. Official reviewer: R. Levinskas

12.00-13.00 Lunch

Laikas	Smart energy networks Knowledges for energy policy making Section C2 (Library) Chairman D. Meilutyte-Barauskiene
13.00-13.20	A. Kleviene (Lithuanian Energy Institute), V. Bobinaite (Kaunas University of Technology, Lithuania). Conception of knowledge structure in the field of renewable energy technologies financing. Official reviewer: V. Martinaitis
13.20-13.40	I. Laube (Riga Technical University, Latvia). Experimental research of natural gas consumption. Official reviewer: R. Gatautis
13.40-14.00	V. Matuziene (Lithuanian Energy Institute), S. Peciulyte (Vytautas Magnus University Lithuania). Indicators of Security of Energy Supply for Lithuania. Official reviewer: R. Alzbutas
14.00-14.20	V. Radziukynas (Lithuanian Energy Institute). Cross-border cooperation in electricity transmission crisis management. Official reviewer: A. Nemura

14.20-14.40 Coffee break

Laikas	Investigations of combustion and plasma processes Section C3 (Library) Chairman D. Meilutyte-Barauskiene
14.40-15.00	M. Milieska , V. Valinius, R. Kezelis (Lithuanian Energy Institute). Synthesis of high temperature mineral fiber in atmospheric pressure plasma jet. Official reviewer: R. Levinskas
15.00-15.20	Z. Kavaliauskas , L. Pranevicius (Lithuanian Energy Institute), L. Pranevicius (Vytautas Magnus University, Lithuania), L. Marcinauskas (Lithuanian Energy Institute). The role of thin NiO ₂ film on the top of carbon electrode on the parameters of supercapacitors. Official reviewer: V. Valincius
15.20-15.40	O. G. Penyazkov, P. P. Khramzov, M. Y. Chernik , I. A. Shikh (A.V. Luikov Heat and Mass Transfer Institute, Belarus). Investigation of boundary layer structure at high frequency dielectric barrier discharge. Official reviewer: R. Kezelis
15.40-16.00	V. V. Leschevich , O. G. Penyazkov (A. V. Luikov Heat and Mass Transfer Institute, Belarus). Autoignition of hydrogen-contained mixtures in rapid compression machine. Official reviewer: D. Milcius

16.00-17.30 Final discussion and closure (Main Hall)

Section D

Laikas	Fusion energy Nuclear fission and radiation protection Section D1 (Room AK-111) Chairman A. Narkuniene
11.00-11.20	T. Kacegavicius (Lithuanian Energy Institute). Development of fusion facility W7-X model for ASTEC code. Official reviewer: L. L. Pranevicius
11.20-11.40	K. Kupciuniene , R. Alzbutas (Lithuanian Energy Institute). Probabilistic modeling of extremes events. Official reviewer: R. Urbonas
11.40-12.00	R. Kilda (Lithuanian Energy Institute). Fuzzy set methodology application to the siting process of the Landfill facility. Official reviewer: R. Urbonas

12.00-13.00 Lunch

Laikas	Nuclear fission and radiation protection Section D2 (Room AK-111) Chairman T. Kaliatka
13.00-13.20	R. Voronov , R. Alzbutas (LEI). Optimisation of testing and reliability of Ignalina nuclear power plant safety systems. Official reviewer: R. Krikštolaitis
13.20-13.40	A. Kontautas , E. Urbonavicius (Lithuanian Energy Institute). Influence of solubility and density parameters on aerosol deposition and distribution in PHEBUS FPT-1 experiment. Official reviewer: A. Kaliatka
13.40-14.00	Z. Skuratovic , R. Plaipaite, V. Jakimaviciute-Maseliene, J. Mazeika, R. Petrosius (Geology and Geography Institute, Lithuania). Tritium and carbon-14 in the Ignalina NPP environment: trends and current situation. Official reviewer: V. Ragaišis
14.00-14.20	A. Brazauskaite (Lithuanian Energy Institute). Uncertainty analysis of the modeling of radionuclide releases from the near field of reference repository for RBMK-1500 spent nuclear fuel disposal in crystalline rocks. Official reviewer: D. Grigaliuniene

14.20-14.40 Coffee break

Laikas	Nuclear fission and radiation protection Section D3 (Room AK-111) Chairman K. Kupciuniene
14.40-15.00	A. Simonis (Lithuanian Energy Institute). Estimation of radiation dose in dismantling pipelines of RBMK reactor emergency core cooling system. Official reviewer: A. Tonkunas
15.00-15.20	E. Narkunas (Lithuanian Energy Institute). Modeling of neutron fluxes in the RBMK - 1500 reactor structures. Official reviewer: R. Pabarcius
15.20-15.40	T. Kaliatka (Lithuanian Energy Institute). Adaptation of FEMAXI-6 code for modelling of RBMK-1500 fuel rod. Official reviewer: V. Vileiniskis
15.40-16.00	A. Juseviciute (Lithuanian Energy Institute). Simulation of RBMK-1500 nuclear fuel rods in case of reactivity initiated accidents. Official reviewer: M. Vaisnoras

16.00-17.30 Final discussion and closure (Main Hall)