

BPS 2023

PROGRAMME

Location: Hungarian University of Agriculture and Life Science
Páter K. u. 1. H-2100 Gödöllő, Hungary
Institute of Technology
Engineering Informatics Centre (Room MIK 25)
(47.59254220146795, 19.3648069886929)

Online access: <https://meet.google.com/uhy-jrfr-ppm>

Thursday, June 15, 2023	
08:00 – 08:40	Registration
08:40 – 09:00	Opening
Session 1 - Energy from renewable sources – Part 1	
Chairman:	Prof. Martin Libra
09:00 – 09:15	Keynote speaker – I. Farkas: Role of photovoltaic technologies transition towards renewable energy
09:15 – 09:25	A.Y. Al-Rabeeah, I. Seres and I. Farkas: Heat transfer enhancement of parabolic trough solar collector by passive methods
09:25 – 09:35	D.I. Permana, D. Rusirawan, I. Farkas: Energy and exergy analysis of organic Rankine cycle based on Tura excess steam
09:35 – 09:45	M. Zholobov, J. Šafránková, M. Libra, V. Poulek, P. Kouřím: Temperature changes of the PV energy conversion efficiency
09:45 – 09:55	D. Mrázek, J. Šafránková, V. Beránek, M. Libra, V. Poulek, J. Sedláček: Monitoring of the energy production in the PV power plant located in the south Moravia region
09:55 – 10:05	Ahssan M.A. Alshibil I. Farkas and P. Víg: Performance comparison of the hybrid photovoltaic thermal modules enhanced by water and glycol as a coolant (online)
10:05 – 10:15	U.A. Albayumi, D. Rusirawan, I. Farkas: Development of solar tracker using microcontroller system (online)
10:15 – 10:25	N. Nugraha, M.A. Putra, D. Rusirawan and I. Farkas: Temperature distribution predetermined classroom without and with air conditioning (online)
10:25 – 10:35	L. Lidyawati, H. Gufron, A. Fahrizal, D. Rusirawan and I. Farkas: Prediction of small-scale solar power plant energy production using machine learning (online)
10:35 – 11:00	Coffee break

Session 2 – Physical properties – Part 1	
Chairman:	Assoc. Prof. Joanna Wiącek
11:00 – 11:15	Keynote speaker – A. Nosalewicz , A. Furtak, K. Okoń: Proton motive force across thylakoid membrane in leaves under variable light conditions
11:15 – 11:25	M. Kaczor, P. Bulak, K. Proc-Pietrycha, M. Kirichenko-Babko, A. Bieganowski: Concentration of selected heavy metals in <i>Hermetia illucens</i> larvae fed on digested sewage sludge
11:25 – 11:35	N. Kutyrieva-Nowak, A. Leszczuk, P. Kalaitzis and A. Zdunek: Prolyl 4 Hydroxylases (P4Hs) affect cell wall changes during the fruit ripening process
11:35 – 11:45	W. Maj, G. Pertile, K. Skic, M. Frąc: Exploring the effects of marigold extract on the morphological alterations of <i>Neosartorya</i> spp (anamorph: <i>Aspergillus</i> spp) using scanning electron microscopy
11:45 – 11:55	M. Marciniak, J. Cieśla, M. Szymańska-Chargot and A. Zdunek: Structural properties of water-soluble cell-wall polysaccharides of two varieties of onion
11:55 – 12:05	A. Kaczmarska, P. M. Pieczywek, J. Cybulska and A. Zdunek: Influence of enzymatic modifications of diluted alkali soluble pectin (DASP) fraction structure on rheological properties (online)
12:05 – 12:15	K. Kłosok, R. Welc-Stanowska and A. Nawrocka: Enhancing biochemical properties of gluten proteins through phenolic acid supplementation (online)
12:15 – 12:25	K. Okoń, M. Zubik-Duda, A. Nosalewicz: Photoprotective function of xanthophylls in unfavourable growth conditions (online)
12:25 – 12:35	P. Pękała, M. Szymańska-Chargot, A. Zdunek: Spectroscopic studies of cell wall polysaccharides of apple at different stages of development (online)
12:35 – 14:00	Lunch

Session 3 – Additional technologies	
Chairman:	Ass. Prof. Lubomir Kubik
14:00 – 14:15	Keynote speaker – P. Hlaváč and V. Madola: Effect of fat content on rheologic properties of cream
14:15 – 14:25	D. Kunecová, P. Hlaváč, V. Vozárová: Use of differential scanning calorimetry in the analysis of tires
14:25 – 14:35	S. Bartha, P.L. Martins, F. Carvalheiro, L.C. Duarte, C. Oliveira, N. Antal: Extraction of added-value compounds from seaweeds from black sea origin (online)
14:35 – 14:45	L. Hartawan, D. Rusirawan and I. Farkas: Comparison of sensors in automatic sprinkler (online)
14:45 – 14:55	T. Hajlich, J. Kumhálová and F. Kumhála: Analysis of BEV energy gain measurement data focusing on battery charge level (online)
14:55 – 15:05	Kisto, D. Rusirawan and I. Farkas: The potential of ocean thermal energy conversion in the North Sulawesi Sea (online)
15:05 – 15:15	R. Kollárik, R. Vitázek and Ľ. Kubík: Presence of solid particles in the vehicle interior (online)
15:15 – 15:25	M. Ridwan, M.P.N. Sirodz, H.A. Rasyied, D. Rusirawan and I. Farkas: Design of condenser with ammonia-water mixture as working fluid at natural hot spring powerplant (online)
15:25 – 15:35	M.P.N. Sirodz, N. Nugraha, R.S. Alam, D. Rusirawan and I. Farkas: Experimental study of continuous gasifier with corn cobs as fuel (online)
15:35 – 16:00	Coffee break

Session 4 – Quality issues	
Chairman:	Assoc. Prof. Artur Nosalewicz
16:00 – 16:15	Keynote speaker – J. Wiącek: The effect of the grain size heterogeneity on the bulk solids handling and processing technology
16:15 – 16:25	J. Horabik: DEM modelling of the impact of stress state in bulk of particles on mass discharge rate from a flat bottom silo (online)
16:25 – 16:35	W. Ciempiel, D. Wiącek and I. Krzemińska: The effect of pH on sorption capacity of mixotrophic EPS synthesised by microalgae
16:35 – 16:45	S. Kukowska, P. Nowicki and K. Szewczuk-Karpisz: Comparison of physicochemical parameters of activated carbons prepared from Aronia melanocarpa using conventional and microwave heating
16:45 – 16:55	V. Madola, P. Hlaváč, V. Cviklovič and S. Paulovič: Measurement of distance as aspect of precision agriculture
16:55 – 17:05	A. Wnuk, O. Goncharuk and K. Szewczuk-Karpisz: Removal of hazardous pesticides from aqueous media using carbon-mineral composites with metallic elements
17:05 – 17:15	M. Kafarski, M. Budzeń, A. Szyplowska, A. Wilczek, A. Lewandowski, J. Majcher, W. Skierucha: System for complex permittivity spectrum measurements in the radio and microwave frequency range for powdery, liquid and solid materials (online)
17:15 – 17:25	K. Szpilska, K. Oszust, A. Gryta, J. Panek, M. Pylak, M. Frąc: Biocontrol of Neofabraea sp. using bacteria isolated on a medium specific to bacillus and pseudomonas genera: an investigation of antagonistic properties (online)
17:25 – 17:35	I. Seres, P. Víg: Biophysical experiments under low temperature
19:00 –	Cultural programme and Common Dinner – Restaurant

Friday, June 16, 2023
Session 5 – Modelling and measurements

Chairman:	Assoc. Prof. Peter Hlaváč
09:00 – 09:15	Keynote speaker – Ľ. Kubík , M. Szentesi, M. Božiková, M. Bilčík: Texture properties of pyrolyzed wheat straw biomass
09:15 – 09:25	A. Gryta, P. Boguta, K. Skic, A. Adamczuk, G. Józefaciuk: Does post-fermentation sludge affect soil structure and porosity
09:25 – 09:35	K. Gibala, M, Beczek: The effects of soil splash phenomenon
09:35 – 09:45	I.R. Nikolényi, Z. Gémesi: Educational benefits of European Union projects
09:45 – 09:55	G. Géczy, I. Seres: The possibilities of the RadNano dosimeters in medical devices and biological experiments
09:55 – 10:05	Cs. Mészáros and Á. Bálint: New applications of the variational methods in the convective fluid flow
10:05 – 10:15	M. Budzeń, M. Kafarski, A. Szyplowska, A. Wilczek, A. Lewandowski, J. Majcher, W. Skierucha: Complex dielectric permittivity spectrum of different type of soil and selected agricultural raw material in relation to density and moisture content (online)
10:15 – 10:25	A. Furtak, A. Szafranek-Nakonieczna, K. Kagan, and A. Pytlak: Effect of glyphosate on respiratory activity of agricultural soils (online)
10:25 – 10:35	D. Gmur, G. Siebielec: Efficiency assessment of selected plant species in REE phytoextraction (online)
10:35 – 11:00	Coffee break

Session 6 - Energy from renewable sources – Part 2

Chairman:	Prof. Istvan Farkas
11:00 – 11:15	Keynote speaker – Rusirawan D. and I. Farkas: Solar energy research activities at ITENAS Bandung (online)
11:15 – 11:25	M. Almadhhachi, I. Seres and I. Farkas: Productivity enhancement of PV module based on a solar tree
11:25 – 11:35	H. Kidane, J. Buzás and I. Farkas: The role of soft computing approach for analysing solar drying systems
11:35 – 11:45	Maytham H. Machi, J. Buzás and I. Farkas: CFD modelling of channel depth effect on the solar air collector efficiency
11:45 – 11:55	T. Negash, I. Seres and I. Farkas: Decarbonising the electricity sector in the context of Eritrea
11:55 – 12:05	Q.K. Zhu, J. Buzás and I. Farkas: Predicting the thermal performance of a solar dryer using artificial neural network
12:05 – 12:15	A.T. Altaye, P. Víg and I. Farkas: Effects of various environmental factors on photovoltaic-thermal systems
12:15 – 12:25	N.D. Anggraeni, I. Seres and I. Farkas: Monthly average solar energy generated by semi-transparent solar modules
12:25 – 12:35	A.M. Ajeena, P. Víg and I. Farkas: Improving the performance of flat plate solar collector by using nanofluid (online)
12:35 – 12:45	Closing
12:45 – 14:00	Lunch