



BPS 2022

PROGRAMME

Monday, May 30, 2022, Congress hall, AgroBioTech Research Centre	
08:00 – 09:00	Registration
09:00 – 09:20	Opening ceremony
I. Session - Photovoltaics 1 st Part	
Chairman:	Assoc. Prof. István Seres
09:20 – 09:35	Keynote speaker – Farkas I.: Status and Perspectives of Photovoltaic Technologies
09:35 – 09:45	Lidyawati L. – Muluk M.D.A. – Rusirawan D. – Farkas I.: Forecasting of Photovoltaic Energy Production with Time Series Modelling (online)
09:45 – 09:55	Fahrizal A. – Lidyawati L. – Rusirawan D. – Farkas I.: Energy Production Modelling 1000 Wp Solar Power Plant Using Naïve Bayes (online)
09:55 – 10:05	Fachrudin H.G. – Lidyawati L. – Rusirawan D. – Farkas I.: Forecasting of PV Energy Production using Support Vector Machine and Machine Learning Modelling (online)
10:05 – 10:15	Anggraeni N.D. – Rusirawan D. – Farkas I.: Scanning Electron Microscopy (SEM) Technique for Dark Lock Thermography (DLIT) Failure Analysis Photovoltaic Module in Solar Panel (online)
10:15 – 10:25	Permana D.I. – Rusirawan, D. – Farkas I.: A Preliminary Design and Modelling Analysis of Solar-Organic Rankine Cycle with Different Type of Solar Collectors
10:25 – 10:45	Coffee break
II. Session - Photovoltaics 2 nd Part	
Chairperson:	Prof. István Farkas
10:45 – 10:55	Negash T. – Seres I. – Farkas I.: Power Quality Issues in Grid-Connected PV Systems
10:55 – 11:05	Almadhhachi M. – Seres I. – Farkas I.: The Importance of Thin-Film PV Modules in Building Integrated Design
10:05 – 11:15	Maytham H. – Machi I. – Buzás J. – Farkas I.: Thermal Performance Modelling of a Single Pass Solar Air Collector
11:15 – 13:00	Lunch (Student’s Residence “ŠD Mladost”)
III. Session - Physical Properties of Plants 1 st Part	
Chairperson:	Prof. István Farkas
13:00 – 13:15	Keynote speaker: Nosalewicz A. – Maksim M.: Plants under Variable Conditions
13:15 – 13:25	Balážová K.: GreenSeeker as a Useful Tool to Identify Crop Vigour of Kabot and Kamut Spring Wheat Varieties (online)
13:25 – 13:35	Pylak M. – Oszust K. – Panek J. – Fraç M.: Changes in the Microbiome of Raspberries as a Result of The Beneficial Bacteria Application (online)

13:35 – 13:45	Wajs J. – Stasiak M.: Determination of Strength of Time-Consolidated Potato Starch Using a New Pulled-Based Caking Tester
13:45 – 13:55	Kutyrieva N. – Leszczuk A. – Zdunek A.: Molecular Studies on Changes of Arabinogalactan Proteins (Agps) during Tomato Ripening Process (online)
13:55 – 14:05	Okoń K. – Zubik-Duda M. – Nosalewicz A.: Regulated Non-Photochemical Quenching under Drought and Fluctuating Light (online)
14:05 – 14:20	Coffee break
IV. Session - Physical Properties	
Chairperson:	Assoc. Prof. Artur Nosalewicz
14:20 – 14:35	Keynote speaker – Horabik J.: Discrete Element Method Modelling of Properties and Processes Important for Storage, Handling and Processing of Agriculture and Food Materials (online)
14:35 – 14:45	Halefom K. – Buzás J. – Farkas I.: Numerical Modelling and Prediction of Flow Behaviour Inside Drying Chamber
14:45 – 14:55	Kunecová D. – Kováčová I. – Vozárová V.: Thermogravimetric Analysis to Describe the Activation Energy in Pyrolysis Products
14:55 – 15:05	Madola V.: Amplitude and Frequency Characteristics of Ultrasonic Signal on Reflection from a Tilted Plane
15:05 – 15:15	Víg P.: Water Drops' Optics at Thin Hydrophobic Layer
15:15 – 15:35	Seres I. – Víg P.: The Wonders of Liquid - Physical Experiments
18:00 – 22:00	Common Diner – Restaurant Media Café (Fraňa Mojtu 18)

Tuesday, May 31, 2022, Congress Hall, AgroBioTech Research Centre	
V. Session - Technologies	
Chairperson:	Assoc. Prof. Ľubomír Kubík
08:00 – 08:15	Keynote speaker – Rusiravan D. – Horabik J. – Hlavacova Z. – Libra M. – Farkas I.: Towards Implementation of Visegrád Four+ Consortium in Academic and Scientific Activities (online)
08:15 – 08:25	Libra M. – Petřík T. – Poulek V. – Kouřím P.: Temperature Changes of Photovoltaic Cell Parameters (online)
08:25 – 08:35	Trisani F.R. – Darlis A.R. – Lidyawati L.: Waste Classification System for Organic and Non-Organic Waste Based on Real Time Artificial Intelligence (online)
08:35 – 08:45	Iskandar A.F. – Rusirawan D. – Taufik A. Offshore Riser Ship Collision Risk Assessment (online)
08:45 – 08:55	Tumpal I.J. – Rusirawan D. – Taufik A. Onshore Pipeline Mechanical Damage Analysis (online)
08:55 – 09:05	Pícha Š. – Štekerová V. – Hartová V. – Kotek M.: Comparison of Annual Emission on Electric Vehicle and on Conventional Vehicle
VI. Session - Physical Properties of Plants 2 nd Part	
Chairperson:	Assoc. Prof. Joanna Wiącek
09:05 – 09:15	Siegieda D. – Panek J. – Frąc M.: Metataxonomy in Organic Strawberry Cultivation – What is the Big Deal? (online)
09:15 – 09:25	Ali M. – Cybulska J. – Frąc M.: Evaluation of <i>Trichoderma Atroviride</i> G79/11 Metabolic Potential and Growth Intensity under Different Additives (online)
09:25 – 09:35	Babiak W. – Czemińska M. – Wilkołazka-Jarosz A. – Krzemińska I.: Effect of Mixotrophic Growth of Microalgae on Extracellular Polymeris Substances (EPS) Production and Biochemical Composition
09:35 – 09:45	Drobek M. – Cybulska J. – Zdunek A. – Frąc M.: Effect of Microbiological Biostimulants on the Quality Parameters of Raspberry (<i>Rubus idaeus</i> L.)
09:45 – 09:55	Chibrikov V. – Pieczywek P.M. – Cybulska J. – Zdunek A.: Effect of Plant Cell Wall Polysaccharides on Mechanical Properties of Bacterial Cellulose-Based Composites (online)
09:55 – 10:15	Coffee break
VII. Session - Physical Properties of Soils and Impact on Plants 1 st Parts	
Chairperson:	Ing. Jitka Edrová
10:15 – 10:25	Zeman A. – Korba J.: Influence of Organic Fertilizers on Physical Parameters of Soil
10:25 – 10:35	Edrová J. – Brož P.: Influence of Organic Fertilizer Intensity on Soil Physical Properties
10:35 – 10:45	Gmur D. – Siebielec G.: Rare Earth Elements (REE) in Waste and Soils in Poland (online)
10:45 – 10:55	Klimczyk M. – Siczek A.: New Formulations of Liquid Urea-Based Fertilizers Containing Additives Influencing the Level of Ammonia Emission (online)
10:55 – 11:05	Mącik M. – Gryta A. – Sas-Paszt L. – Frąc M.: The Investigation of Archaeal Genetic Diversity in the Degraded Soil Amended with Phosphorus Biofertilizer (online)
11:05 – 11:15	Matczuk D. – Siczek A.: The Potential of Plant Extracts as Ureases Inhibitors (online)
11:15 – 11:25	Kaczor M. – Bulak P. – Bieganski A.: Biofertilization Potential of Post-breeding Residue after Bioconversion of Organic Waste by <i>Hermetia Illucens</i> Larvae
VIII. Session Physical Properties Utilization in Food Processing 1 st Parts	
Chairperson:	Ing. Pavel Brož
11:25 – 11:35	Glowacky P. – Nawrocka A. – Bobryk-Mamczarz A.: Textured Vegetable Meat Substitutes Based on Wheat-Based Raw Materials Produced by Extrusion Cooking Techniques

11:35 – 11:45	Kłosok K. - Welc R. – Szymańska-Chargot M. – Niewiadomski Z. – Nawrocka A.: Gluten Network Aggregation Induced by Selected Phenolic Acids Studied by FT-Raman Spectroscopy
11:45 – 11:55	Krekora M. – Nawrocka A.: Changes in the Secondary and Tertiary Structure of Gluten Proteins Due to the Addition of Selected Flavonoids and Their Glycosides
11:55 – 13:25	Lunch
VII. Session - Physical Properties of Soils and Impact on Plants 2 nd Parts	
Chairperson:	Assoc. Prof. Peter Hlaváč
13:25 – 13:35	Ren T. – Tang S. – Han T. – Wang B. – Smreczak B. – Ukalska-Jaruga A. – Liang G. – Zhou Z. – Cai A.: Tianjing Positive Rhizosphere Effect on Soil Carbon is Dominantly Controlled by Abiotic Rather than Biotic Factors Across Global Agroecosystem (online)
13:35 – 13:45	Wesołowska M. – Mikos-Szymańska M. – Baranowski P.: Ammonia Emissions after Urea-Based Fertilizers Application (online)
13:45 – 13:55	Rymarczyk J. – Rymarczyk K. – Nosalewicz A.: Impact of Urea-Based Fertilizer Modified with NBPT Urease Inhibitor on Growth of Spring Wheat in Pot Experiment (online)
13:55 – 14:05	Góra R. – Stasiak M.: Mechanical Parameters of Urea-Based Fertilizers Modified with NBPT Urease Inhibitor and Biodegradable Coatings (online)
14:05 – 14:15	Smytkiewicz K. – Podleśny J. – Wielbo J. – Kidaj D.: Influence of Nod Factors (LCOs) on Morphological Traits and Yielding of Pea (online)
VIII. Session - Physical Properties Utilization in Food Processing 2 nd Parts	
Chairperson:	Prof. Zuzana Hlaváčová
14:15 – 14:25	Kaczmarska A. – Pieczywek P.M. – Cybulska J. – Zdunek A.: Studies on Changes in the Structure of Enzymatically Treated Rhamnogalacturonan-Rich Pectin from Apple and Carrot (online)
14:25 – 14:35	Krysa M. – Szymańska-Chargot M. – Pertile G. – Frąc M. – Zdunek A.: Influence of the Flavonoids Addition on the Structure and Properties of Microfibrillar Cellulose and Nanocellulose-Based Composites (online)
14:35 – 14:55	Coffee break
14:55 – 15:05	Maj W. – Pertile G. – Frąc M.: The Effect of Conservative Substances on a Group of Fungi Belonging to the <i>Neosartorya</i> Genus (online)
15:05 – 15:15	Pekala P. – Szymańska-Chargot M. – Myśliwiec D. – Zdunek A.: Adsorption in Investigation of Cellulose Interaction with Other Polysaccharides (online)
15:15 – 15:25	Skorupka M.: Analysis of Potential Mitigation of Nitrogen Losses Due to Ammonia Emission (online)
15:25 – 15:35	Vošahlík J. – Hart J.: IoT and Improving the Fermentation Process of Rice Wine (online)
15:35 – 15:45	Kubík Ľ. – Bilčík M. – Csillag J.: Physical Properties of Edible Oils
15:45 – 15:55	Hlaváč P. – Hlaváčová Z.: Comparison of Apparent Viscosity and Density of Some Mustards
15:55	Conclusion and Closing Ceremony of the 21 st International Workshop for Young Scientists "BioPhys Spring 2022"