

Biosystems Engineering 2015, SCHEDULE

Day	Time				
Thursday 7.05.15	9.00 – 10.00	REGISTRATION and morning coffee (Estonian University of Life Sciences, Institute of Technology, 56 Kreutzwaldi Str., Tartu)			
	10.00 – 10.15	OPENING: Rector Prof. Mait Klaassen (Institute of Technology, room A204) Opening remarks and welcome: Director of Institute of Technology Margus Arak			
		PLENARY SESSION (Institute of Technology, room A204):			
	10.15 – 10.40	Biogas: Research needs and the potential contribution to European targets – Prof. Charles J. Banks , Department of Biotechnology, University of Southampton, Great Britain			
	10.40 – 11.00	Soil compaction from different perspectives – Ass. Prof. Endla Reintam , Estonian University of Life Sciences, Estonia			
	11.00 – 11.20	Bioenergy and valuable products from microalgal biomass produced on industrial side streams – Prof. Martin Romantschuk , University of Helsinki, Finland			
	11.20–11.40	Internet of things in manufacturing – Prof. Alvo Aablo , University of Tartu, Estonia			
	11.40 – 12.00	Salt Reduction in Meat Products: Theory and Practice – Emer. Prof. Eero Puolanne , University of Helsinki, Finland			
	12.00 –12.10	GROUP PHOTO			
	12.10 – 13.00	LUNCH at the main building of Estonian University of Life Sciences, 1a Kreutzwaldi Str., Tartu			
Thursday 7.05.15		AGRICULTURAL ENGINEERING (Institute of Technology, room B136)	VEHICLES AND FUELS (Institute of Technology, room B200)	RENEWABLE ENERGY (Institute of Technology, room A204)	FOOD SCIENCE AND TECHNOLOGY (Institute of Technology, room A402)
	13.00 – 15.00	Chair: Prof. Marek Gaworski	Chair: PhD Risto Ilves	Chair: Prof. Andres Annuk	Chair: Prof. Eero Puolanne
		Comparison of tyres for self-propelled sprayers – J. Čedík , R. Pražan: Czech Republic	Determination of the phase separation temperature and the water solubility in the mixtures of gasoline with biobutanol and bioethanol – V. Hönig , Z. Linhart, J. Táboršký, J. Mařík: Czech Republic	Influence of lammas shoots on productivity of Norway spruce in Latvia – U. Neimane , M. Zadina, L. Sisenis, B. Dzerina, A. Pobiarsens: Latvia	Glyphosate attachment on aminoactivated carriers for sample stabilization and concentration – E. Viirlaid , R. Riiberg, U. Mäeorg, T. Rinke: Estonia
	The influence of a system with permanent traffic lanes on physical properties of soil, soil tillage quality and surface water runoff – D. Gutu , J. Hůla, P. Kovaříček, P. Novák: Czech Republic	The analysis of the influence of biobutanol and bioethanol mixture with ethers on the vapor pressure of gasoline – V. Hönig , M. Orsák, J. Táboršký: Czech Republic	Profitability of hybrid aspen breeding in Latvia – J. Smilga, M. Zeps , L. Sisenis, J. Kalnins, A. Adamovics, J. Donis: Latvia	Analysis of mechanical behaviour of <i>Jatropha curcas</i> L. bulk seeds under compression loading with aid of reciprocal slope transformation method and tangent curve method – D. Herak : Czech Republic	

		Evaluation of measuring frame for soil tillage machines draught force measurement – P. Procházka, P. Novák, J. Chyba, F. Kumhála : Czech Republic	The distillation characteristics of automotive gasoline containing biobutanol, bioethanol and the influence of the oxygenates – V. Hönig , M. Orsák, M. Pexa, Z. Linhart: Czech Republic	Formation of height increment of hybrid aspen in Latvia – M. Zeps , L. Sisenis, S. Luguza, M. Purins, B. Dzerina, J. Kalnins: Latvia	Upgrading the technology of functional dairy products by means of fermentation process ultrasonic intensification – B. Shershenkov , E. Suchkova: Russia
		Application of overlaying material on surface of ploughshare for increasing its service life and abrasive wear resistance – P. Novák , M. Müller, P. Hrabě: Czech Republic	Evaluation of stability of elastomer packing exposed to influence of various biofuels –M. Müller, V. Šleger, J. Mařík, M. Pexa, Č. Mizera : Czech Republic	Factors affecting biochemical composition of lignocellulosic biomass and its effect on selection of pretreatment method and on bioethanol production potential – Marti Tutt : Estonia	The effect of blanching temperature on the quality of microwave-vacuum dried mushroom <i>Cantharellus cibarius</i> – R. Galoburda , M. Kuka, I. Cakste, D. Klava: Latvia
		Production of high quality hemp shives with a new cleaning system – C. Lühr , R. Pecenka, H.-J. Gusovius: Germany	Influence of Butanol and FAME Blends on Operational Characteristics of Compression Ignition Engine – J. Čedík , M. Pexa, J. Mařík, V. Hönig, Š. Horníčková, K. Kubín: Czech Republic	Application of industrial wastes in renewable energy production – K. Rugele , L. Mezule, G. Bumanis, T. Juhna, D. Bajare: Latvia	The role of cyclic amides in the formation of antioxidant capacity of bakery products – L. Nilova , O. Orlova, J. Nasonova: Russia
		Dependency of hop material fall through on the size of gaps between rollers of the roller conveyor in separating machine – M. Krupička , A. Rybka: Czech Republic	Comparison of the operating characteristics of the internal combustion engine using rapeseed oil methyl ester and hydrogenated oil – M. Pexa, J. Čedík , J. Mařík, V. Hönig, Š. Horníčková, K. Kubín: Czech Republic	Seasonal variation in heat collection fluid used in renewable, carbon-free heat production from urban and rural water areas – E. Hiltunen, J. B. Martinkauppi , A. Mäkiranta, J. Rinta-Luoma, T. Syrjälä: Finland	Development of cheese product with hydrolyzed soybean emulsion – L. Nadtochii , L. Zabodalova, M. Domoroshchenkova: Russia
		Field performance and costs at harvesting of short rotation coppices – T. Hoffmann , R. Pecenka: Germany	Energy consumption of commuting of suburban areas – D. Marčev, M. Růžička , M. Lukeš, M. Kotek: Czech Republic	Investigation of fuel effect on biomass gasification process using equilibrium model – V. Kirsanovs, A. Žandeckis : Latvia	Calculation model for the assessment of animal by-product resources in Estonian meat industry – U. Sannik , L. Lepasalu, R. Soidla, A. Põldvere, R. Saar, A. Tänavots, V. Poikalainen: Estonia
		Continuous airflow rate control in a recirculating batch grain dryer – T. Jokiniemi , T. Oksanen, J. Ahokas: Finland	The impact of bioethanol fuel with rapeseed oil additive on the exhaust gas of a two-stroke engine – A. Vlasov : Estonia	Hot-air distribution in the floor heating – P. Kic : Czech Republic	Evaluation of size distribution of fat globules and fat and protein content in Estonian Goat milk – V. Tatar , H. Mootse, A. Sats, T. Mahla, T. Kaart, V. Poikalainen: Estonia

	COFFEE BREAK , room A202
15.00 – 16.30	POSTER SESSIONS (Institute of Technology, 2 nd and 4 th (Food Science) floors)
15.00 – 16.30	AGRICULTURAL ENGINEERING, PRECISION AGRICULTURE (Institute of Technology, 2 nd floor)
	Plant remains distribution quality of different combine harvesters in connection with conservation tillage technologies – Z. Kviz, F. Kumhala, J. Masek: Czech Republic
	Use of pneumatic conveying in the processing of granular waste materials – T. Jehlička, J. Sander: Czech Republic
	Compaction capacity rating of agricultural tyres – P. Prikner, A. Grečenko: Czech Republic
	Effects of the divers olive harvesting systems on oil quality – L.M. Abenavoli, A.R. Proto: Italy
	Determination of power loss of combine harvester travel gear – L. Beneš, P. Heřmánek, P. Novák: Czech Republic
	Investigation of the technological spring harvesting variants of the industrial hemp stalk mass – S. Ivanovs, A. Adamovics, A. Rucins: Latvia
	Taxonomic diversity of bacterial populations inhabiting gametophytes Sphagnum mosses from different geographic region of Russia – A. Shcherbakov, E. Kuzmina, E. Lapshina, E. Shcherbakova, L. Gonchar, V. Chebotar: Russia
	Mulcher energy intensity measurement in dependence on performance – J. Čedík, M. Pexa, R. Pražan, K. Kubín, J. Vondříčka: Czech Republic
	The effect of genotype on table grapes soluble solids content – M. Maante, E. Vool, R. Rätsep, K. Karp: Estonia
15.00 – 16.30	BIOENERGY AND RENEWABLE ENERGY (Institute of Technology, 2 nd floor)
	Effect of lignin content of lignocellulosic material on hydrolysis efficiency – M. Raud, M. Tutt, J. Olt, T. Kikas: Estonia
	Measurement and analysis of temperature changes of ground massif with Slinky heat exchanger - M. Šedová, P. Neuberger, R. Adamovský: Czech Republic
	Direct and indirect energy input in the harvesting of scots pine and norway spruce stump-root systems from areas cleared for farmland – R. Lauhanen, J. Ahokas, J. Esala: Finland
	Green energy from different feedstocks processed under anaerobic conditions – V. Skorupskaitė, V. Makarevičienė, G. Šiaudinis, V. Zajančauskaitė: Lithuania
	Energy use of compost pellets for small combustion plants – K. Skanderová, J. Malafák, J. Bradna: Czech Republic
	Above ground and below ground biomass in grey alder <i>Alnus incana</i> (L.) Moench. young stands on agricultural land in central part of Latvia – A. Bārdulis, D. Lazdiņa, M. Daugaviete, A. Bārdule, U. Daugavietis, G. Rozītis: Latvia
	Economic evaluation of hemp (<i>Cannabis sativa</i>) grown for energy purposes (briquettes) in the Czech Republic – M. Kolarikova, T. Ivanova, P. Hutla, B. Havrland: Czech Republic
	Charcoal production environmental performance – K. Kļaviņa, K. Kārkliņa, D. Blumberga: Latvia
	Conceptual design of experimental solar heat accumulation system with phase change materials - M. Dzikevics; D. Blumberga, A. Blumberga: Latvia
	Hybrid Greenhouse with automated use of Renewable Energy Sources Systems - P.L. Zervas, D. Karamousantas, G. Kiriakos, K. Konstantatou, K. Panousopoulos, A. Dimitrakopoulos, E. Georgopoulos, N.C. Markatos: Greece
	Modeling greenhouse gas emissions from the forestry sector – the case of Latvia – E. Dace, I. Muizniece: Latvia
	Critical technology factors of biogas plants using mixed materials - L. Tóth, J. Beke, Z. Bártfai, I. Szabó, I. Oldal, L. Kátai: Hungary
	A proposition of management of the waste from biogas plant cooperating with wastewater treatment – M. Bloch-Michalik, M. Gaworski: Poland
15.00 – 16.30	VEHICLES AND FUELS (Institute of Technology, 2 nd floor)
	Determination of the optimal injection time for adaptation SI engine on E85 fuel using self designed auxiliary control unit – T. Kotek, M. Kotek, P. Jindra, M. Pexa: Czech Republic
	The Energy Consumption of Public Transit under Rural and Suburban Conditions – M. Lukeš, M. Kotek, M. Růžička: Czech Republic

15.00 – 16.30	PRODUCTION ENGINEERING, ENGINEERING DESIGN AND MODELLING, ENGINEERING EDUCATION (Institute of Technology, 2 nd floor)
	Biochemical oxygen demand sensor arrays – K. Pitman, M. Raud, J. Olt, T. Kikas: Estonia
	Temperature distribution analysis inside the strawberry flower head - M. Pennar, V. Palge, E. Kokin, K. Jürjenson, E. Ideon, A. Annuk: Estonia
	Laboratory research of granular thermal insulation material from coniferous forestry residue – I. Muizniece, L. Vilcane, D. Blumberga: Latvia
	Mechanical behaviour of the polymer composite with fibers of false banana (<i>Ensete ventricosum</i>) – C. Mizera, D. Herak, M. Muller, P. Hrabe: Czech Republic
	Effect of chemical modification of wood flour on the mechanical properties of wood-plastic composites – H. Kallakas, M.A. Shamim, T. Olutubo, T. Poltimäe, T.M. Süld, A. Krumme, J. Kers: Estonia
	Methodology of demand side management study course. experience of case studies - T. Prodanuks, D. Blumberga: Latvia
	Pressure distribution measurement system PLANTOGRAF V12 and its electrodes configuration - J. Volf, J. Svatos, P. Koder, V. Novak, S. Papezova, V. Ryzhenko, J. Hurtecak: Czech Republic
15.00 – 16.30	LIVESTOCK TECHNOLOGY (Institute of Technology, 2 nd floor)
	Forced convection in drying of poultry manure – A. Aboltins, P. Kic: Latvia & Czech Republic
	Security methods for livestock buildings including assessment aspects - J. Hart, Z. Štěrbová, V. Nídllová: Czech Republic
	Cow crowding in waiting yard using mechanical drivers and its influence on productivity of rotary type milking equipment – M. Mangalis, Dz. Jaundžeikars, J. Priekulis: Latvia
15.00 – 16.30	ERGONOMICS (Institute of Technology, 2 nd floor)
	Reliability of biometric identification using fingerprints under adverse conditions – V. Nídllová, J. Hart: Czech Republic
	Team learning and self management for video-display-terminal employees with chronic neck-shoulders pain - I. Roja, Z. Roja, H. Kalkis: Latvia
	An analysis of engineering students' knowledge on the topic of occupational health and safety - J. Paju, S. Kalle: Estonia
	EMG measurements of thumb muscles of nurses and caregivers - J. Sepp, M. Järvis, P. Tint, V. Siirak, K. Reinhold: Estonia
	The comparison study of office workers workplace hazards in different types of buildings - I. Vilcane, V. Urbane, P. Tint, J. Ievins: Estonia & Latvia
15.00 – 16.30	FOOD SCIENCE AND TECHNOLOGY (Institute of Technology, 4 th floor)
	Comparative study of three drying methods: freeze, hot air-assisted freeze and infrared-assisted freeze modes - T. Antal: Hungary
	Optimization of the recipe of yoghurt with additives and control of some quality attributes of new yoghurt recipe– E. Skripleva, T. Arsenyeva: Russia
	Yeast physiological state influence on beer turbidity – T. Meledina, S. Davydenko, A. Dedegkaev: Russia
	Effect of age on composition and quality of <i>Longissimus thoracis</i> muscle of the moose (<i>Alces alces</i> L.) harvested in Estonia - A. Tānavots, A. Pöldvere, R. Soidla, L. Lepasalu, J. Torp: Estonia
	Stability of rapeseed oil with horseradish <i>America rusticana</i> L. and lovage <i>Levisticum officinale</i> L. extracts under medium temperature accelerated storage conditions - L. Tomsone, Z. Krūma: Latvia
	Functional properties of tarhana enriched with nutritional supplement – N. Ertaş, D. Sert, M.K. Demir: Turkey
	Effects of dairy cow diet supplementation with carrots on milk composition, concentration of cow plasma carotenes and butter oil fat-soluble antioxidative substances – U. Antone, V. Šterna, J. Zagorska, A. Bērziņš, D. Ikauniece, A. Jemeljanovs: Latvia
	Rheological properties of whole wheat and whole triticale flour blends for pasta production - S. Kalnina, T. Rakcejeva, D. Kunkulberga, R. Galoburda: Latvia
	Study of functional and technological characteristics of protein concentrates from lupin seeds - L. Kuznetsova, M. Domoroshchenkova, L. Zabodalova: Russia

		Stability of vitamin A and E in powdered cow's milk in relation to different storage methods – T. Michlová, Š. Horníčková, H. Dragounová, A. Hejtmánková: Czech Republic			
		Detection of bacteriocin-producing lactic acid bacteria from milk in various farms in north-east Algeria by a new procedure – H. Daba, S. Saidi: Algeria			
		The micro-flora of gills, gut and skin of European eels (<i>Anguilla anguilla</i>) in lakes of Latvia – V. Strazdina, M. Terentjeva, I. Eizenberga, A. Novoslavskij, O. Valciņa, J. Ošmjana, A. Bērziņš: Latvia			
		Integrated evaluation of cowpea (<i>Vigna unguiculata</i> (L.) Walp.) and maple pea (<i>Pisum sativum</i> var. <i>arvense</i> L.) spreads – A. Kirse, D. Karklina: Latvia			
		A study of bryophytes as a raw material for food production – L. Klavina: Latvia			
		Effect of degradation preventive agents on storage stability of anthocyanins in sour cherry concentrate – Derya Arslan Danacioglu: Turkey			
		Effect of imported Duroc boars on meat quality of finishing pigs in Estonia – A. Pöldvere, A. Tānavots, R. Saar, T. Torga, T. Kaart, R. Soidla, L. Lepasalu: Estonia			
		Evaluation of biochemical composition of beaver (<i>Castor fiber</i>) meat hunted in Latvia – V. Strazdina, V. Sterna, A. Jemeljanovs, I. Jansons, D. Ikauniece: Latvia			
		The effect of packaging type on quality of cereal muesli during storage – S. Senhofa, E. Straumite, M. Sabovics, D. Klava, R. Galoburda, T. Rakcejeva: Latvia			
		Pigments in the mint leaves and stems – E. Straumite, Z. Kruma, R. Galoburda: Latvia			
		Pork quality of autochthonous genotype Casertana, crossbred Casertana x Duroc and hybrid Pen ar Lan in relation to farming systems – C.M.A. Barone, Di Matteo R., L. Rillo, C.E. Rossetti, F. Pagano, D. Matassino: Italy			
		Expression of myogenesis factors that regulate the differentiation of pigs muscle fibers in two genetic type – F. Pagano, L. Coppola, S. Velotto, G. Miele, C.M.A. Barone, A. Crasto: Italy			
		Effect of aging technologies on some qualitative characteristics of Longissimus dorsi muscle of Marchigiana beef – S. Velotto, F. Pagano, C.M.A. Barone, M. Esposito, G. Civile, A. Crasto: Italy			
Thursday 7.05.15		AGRICULTURAL ENGINEERING & LIVESTOCK TECHNOLOGY (Institute of Technology, room B136)	PRODUCTION ENGINEERING & MODELLING (Institute of Technology, room A310)	BIOENERGY (Institute of Technology, room A204)	ERGONOMICS (Institute of Technology, room A220)
16.30 – 18.30	Chair: Prof. Jukka Ahokas	Chair: PhD Tõnu Leemet	Chair: PhD Timo Kikas	Chair: Prof. Mati Pääsuke	
	Sensitivity of capacitive throughput sensor to the change of material relative permittivity – J. Lev : Czech Republic	Biochemical oxygen demand sensor arrays – K. Pitman , M. Raud, T. Kikas: Estonia	Amount of manure used for biogas production – A. Aboltins , J. Priekulis, A. Laurs: Latvia	Assessment of the impact of the shape of the handle on the ergonomics of operating a handbrake – M. Hruška , J. Kuchař, L. Libich, P. Jindra: Czech Republic	
	Measurement of electrical conductivity of DAP fertilizer – J. Krupička , P. Šařec, P. Novák: Czech Republic	Non-stationary processing center for small and medium sized blueberry farms – K. Soots : Estonia	Lipid production from diverse oleaginous yeasts from steam exploded corn cobs – H. Kahr , M. Pointner, K. Krennhuber, B. Wallner, A. Jäger: Austria	Dust pollution in University offices – P. Kic : Czech Republic	

		Laser scanner based collision prevention system for autonomous agricultural tractor – T. Oksanen : Finland	Development of In-Store Dryer Model for Corn – Varying Inlet Condition – Xu Ma, R.H. Driscoll, G. Srzednicki : Australia	Production of fermentation feedstock from lignocellulosic biomass: application of membrane separation – B. Dajčka , M. Strods, L. Mežule: Latvia	The effect of static magnetic field on heart rate variability – an experimental study – T. Koppel , I. Vilcane, M. Carlberg, P. Tint, R. Priiman, K. Riisik, H. Haldre, L. Visnapuu: Estonia
		Maintenance interval optimization based on fuel consumption data via GPRS monitoring – Z. Aleš, J. Pavlů , V. Jurča: Czech Republic	Influence of dusty micro-particles contamination on adhesive bond strength – A. Krofová , M. Müller: Czech Republic	Environmental consequences of anaerobic digestion of manure with different co-substrates to produce bioenergy: a review of life cycle assessments – S. Pehme , E. Veromann: Estonia	Job specific risk factors, demographic parameters and musculoskeletal disorders among military personnel depending on type of service – E. Merisalu , M. Vähi, S. Kinnas, M. Oja, K. Sarapuu, O. Novikov, M. Pärnapuu, E. Indermitte, K. Lea, H. Orru: Estonia
		Measurement of tensile force at the fundamental tillage using tractor's build-in sensor and external sensor connected between machines and their comparison – M. Kroulik , J. Chyba, V. Brant: Czech Republic	Sandwich wall constructions made of perforated metallic materials – M. Lisicins , V. Mironovs, I. Boiko, V. Lapkovskis: Latvia	Anaerobic digestion of vegetables processing wastes with catalyst metaferm – V. Dubrovskis , I. Plume: Latvia	Workload and health of older academic personnel using telework – R. Arvola , Ü. Kristjuhan: Estonia
		Direct energy saving possibilities in milk production – M. Rajaniemi , J. Ahokas, M. Turunen: Finland	Hybrid composite materials on basis of reactoplastic matrix reinforced with textile fibres from process of tyres recycling – M. Müller, A. Krofova : Czech Republic	Examination of commercial additives for biogas production – P. Kuttner , A.D. Weißböck, V. Leitner, A. Jäger: Austria	Work-related musculoskeletal symptoms in industrial workers and the effect of balneotherapy – V. Pille , V.-R. Tuulik, S. Saarik; P. Tint, T. Vare, R. Sepper: Estonia
		Comparison of dairy potential in Europe and its effect on assessment of milking systems – M. Gaworski , A. Leola: Poland & Estonia	FEM based numerical simulation for heat treatment of the agricultural tools – R. Chotěborský , M. Linda: Czech Republic	Impact of synthetic hormone 17 α -ethinylestradiol on growth of microalgae desmodesmus communis – K. Balina , M. Balode, L. Muzikante, D. Blumberga: Latvia	Estimation of safety performance by MISHA method and the benefits of OHSAS 18001 implementation in Estonian manufacturing industry – Õ. Paas , K. Reinhold, P. Tint: Estonia
		Heating and ventilation in milking parlours – Jan Papez, P. Kic : Czech Republic	Polymeric microparticles composites with waste EPDM rubber microparticles – P. Valášek, A Krofova : Czech Republic	Effect of lignin content of lignocellulosic material on hydrolysis efficiency – M. Raud , M. Tutt, J. Olt, T. Kikas: Estonia	Concept of a low-cost device for quantitative evaluation of MSD risk factors – Märt Reinvee : Estonia
Thursday 7.05.15	Time 19.00	OFFICIAL CONFERENCE DINNER at Restaurant Atlantis , 2 Narva Str., Tartu http://www.atlantis.ee/			
Friday 8.05.15	10.30 11.00 – 13.00 11.00 11.00 – 13.00	EXCURSION: Start at Institute of Technology Estonian Aviation Museum http://www.lennundusmuuseum.ee/index.php?lang=2 Gathering in front of the Town Hall Tartu City Tour			

