PROGRAM

ICES²D 2019
1st International Conference on Engineering Solutions for Sustainable Development
3-4 October 2019
University of Miskolc, HUNGARY
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Detailed Program of the International Conference on Engineering Solutions for Sustainable Development

University of Miskolc

Hungary

	3 October
	Lecture Hall XXXIV, C2 building
8:30-9:30	***Registration***
9:30-9:40	***Welcome – Prof. Dr. Klára SZITA***
9:40-9:50	***Welcome – Dr. Zoltán SIMÉNFALVI***
9:50–10:00	***Welcome – Dr. Csaba DEÁK, Cancellor***
10:00-10:30	***Keynote speaker: Wahidul K. BISWAS, Ass.Prof. Curtin University, Australia: Life cycle assessment for achieving sustainable engineering solutions***
10:30-11:00	***Keynote speaker: Paolo MASONI, Presidente Ecoinnovazione srl, Italy: Development of a Taxonomy for Sustainable Finance***
11:00-11:30	***Adrienn BUDAY-MALIK, ÉMI Nonprofit Ltd: Sustainability and circularity in building and construction - good practices***
11:30-11:45	***Discussion***
11:45-12:00	**Group picture**
12:00-13:30	**Lunch break**

	3 October	
	Lecture Hall XXXIV (C2 building)	**Lecture Hall XXXV (C2 building)**
	Session 5 **Circular Economy and Life Cycle Approaches** **Chair: Prof. Dr. K. Szita Tóthné** **Secretary: B. GÁL**	**Session 1** **Process Engineering, Modelling and Optimisation** **Chair: Prof. Dr. K. Jármai** **Secretary: A. Erdős**
13:30-13:45	KAOULA Dalel: Influence of urban morphology on the environmental impacts of district. Applied LCA	BELGACEM Mohamed El Ghazali: Estimation of compressive strength of current concrete materials: effect of core diameter and maximum aggregate size
13:45-14:00	LUKÁCS János: Life cycle extension of damaged pipelines using fiber reinforced polymer matrix composite wraps	PETRIK Máté: Heat transfer analysis for finned tube heat exchangers
14:00-14:15	D'SOUZA Flora: Is packaging going circular or in circles? -Ecodesign for Sustainable Packaging	BASSEL Alsalamah: Comparison of the mathematical modellisation and physical simulation of strain induced crack opening
14:15-14:30	HORVÁTH Kádárné Ágnes: Possibilities for adopting the circular economy principles in the EU steel industry	KÁLLAI Viktória: Prediction of distillation plates' efficiency
14:30-14:45	Discussion	NEHÉZ Károly: CAD Tools for Knowledge Based Part Design and Assembly Versioning
14:45-15:00		Discussion
15:00-15:30	**Coffee break**	

	Session 6 **Smart Manufacturing and Smart Buildings** **Chair: Dr. A. Terjék** **Secretary: B. GÁL**	**Session 1** **Process Engineering, Modelling and Optimisation** **Chair: Dr. S. Nagy** **Secretary: R. Szabó**
15:30-15:45	HORNYÁK Olivér: Grouping and analyzing PLC source code for smart manufacturing	CHAHBOUB Yassine: Determination of GTN parameters using artificial neural network for ductile failure
15:45-16:00	ISTVÁN Zsolt: Diassembly strategy for end of life bus	AL-FATLAWI Alaa: Analytical and Numerical Study for Minimum Weight Sandwich Structures
16:00-16:15	ISMAIL Ali Suha: Environmental assessment of buildings in Sudan	SPISÁK Bernadett: Numerical simulation methods of stress corrosion cracking
16:15-16:30	FOUFA ABDESSEMED Amina: Comparative study of the influence of traditional walls with typology and different constructive techniques on the energy performance of the traditional housing of the Kasbah of Algiers.	RAFA Sid Ali: Effect of Soil Reinforcement with Stone Columns on the Behavior of a Monopile Foundation Subjected to Lateral Cyclic Loads
16:30-16:45	Discussion	ROUAZ Idriss: Performance of Cold Formed Steel Shear Wall Panel with OSB Sheathing under lateral load
16:45-17:00	**Session 3** **Waste Management and Reverse Logistics** **Chair: Zs. István** **Secretary: B. Gál**	SZABÓ Martin: Implementation of a customized CAD extension to improve the calculation of center of gravity
17:00-17:15	SZABÓ J. Ferenc: Application of sigmoid curves in environmental protection	GHAFIL Hazim Nasir: Neural networks for learning inverse Kinematics of robots: Review and application
17:15-17:30	AKKAD Mohammad Zaher: Cyber-physical waste collection system: a logistics approach	Discussion
17:30-17:45	AGÁRDI Anita: Vehicle routing in drone-based package delivery services	
17:45-18:00	HARDAI Ibolya: Efficiency improvement of reverse logistics in Industry 4.0 environment	
18:00-18:15	Discussion	
Dinner & Traditional Selmec Party: 19:30-22:00		

	4 October	
	Lecture Hall XXXIV (C2 building)	**Lecture Hall XXXV (C2 building)**
	Session 2 **Sustainable and Renewable Energy and Energy Engineering** **Chair: Dr. Z. Siménfalvi** **Secretary: V. Kállai**	**Session 7** **Innovation and Efficiency** **Chair: Prof. Dr. J. Lukács** **Secretary: R. Sisodia**
8:30-8:45	DERRADJI Lotfi: Experimental and numerical study of the thermal behavior of a building in Algeria	TÓTH G. Bence: Redundancy Analysis of the Railway Network of Hungary
8:45-9:00	MATUSZ-KALÁSZ Dávid: Examination the effect of environmental factors on a photovoltaic solar panel	KONCSIK Zsuzsanna: Lifetime analyses of S960M steel grade applying fatigue and fracture mechanical approaches
9:00-9:15	SINGH Buta: Techniques for evaluation of mixing efficiency in an anaerobic digester	SISODIA Raghawendra Pratap Singh: Innovative and efficient production of welded body parts from 6082-T6 aluminium alloy
9:15-9:30	KLAZLY Mohamad Mehi Alddin: Comparison of Sakiadis and Blasius Flows Using Computational Fluid Dynamic	OUKACI Soumia: Improvement of the modern house's energy efficiency in the region of In Saleh
9:30-9:45	AMARA Mohamed: Towards CHP system: Preliminary investigation and integration of an ORC cycle on a simple gas boiler	ALSARAYEFI Saad: The effect of the damaged fibre reinforced polymer machine and vehicle components on the vibration decay rate
9:45-10:00	Discussion	BARTHA Zoltán: The innovation shell, and barriers of disruptive innovation
10:00-10:15		Discussion
10:15-10:30	GÁL Balázs - **Bay Zoltán Nonprofit Ltd**: Better Access of SMEs to Key Enabling Technology services and micro-grants for Clean production	
10:30-11:30	**Poster Session & Coffee break**	

	Session 5 Circular Economy and Life Cycle Approaches Chair: Prof. Dr. J. Szépvölgyi & Dr. V. Mannheim Secretary: D. Matusz-Kalász	Session 7 Innovation and Efficiency Chair: Dr. Zs. Koncsik Secretary: R. Sisodia
11:30-11:45	GÁL Balázs: Life Cycle approach of a new Industrial Symbiosis alternative	DREES Dirk: Introducing a FACTory concept to develop a data base for durability and sustainability of materials
11:45-12:00	SÁRA Balázs: Harmonised environmental and economic assessment of circular solutions with life cycle approach - a Central European collaboration within the CIRCE2020 project	MOBARK Haidar Faisal Helal: Efficient application of S690QL type high strength steel for cyclic loaded welded structures
12:00-12:15	SZITA Klára: Circular economy solutions for industrial wastes	SZÉPVÖLGYI János: Sustainability and Innovation
12:15-12:30	BABCSÁN Norbert: Aluminium infinite green circular economy – theoretical carbon free infinite loop, combination of material and energy cycles	HOANG DING Thien: A short discussion on some influencing factors of an artificial corrosion system and obtained metallic pipe samples
12:30-12:45	Discussion	Discussion
12:45-13:15	**Closing**	
13:15-14:15	**Lunch**	
15:00-18:00	Miskolc sightseeing	

Posters of the
International Conference on
Engineering Solutions for Sustainable Development

University of Miskolc

Hungary

	AUTHORS	TITLE OF POSTER
1	TAKÁCS Ágnes	Rules of environmentally friendly packaging
2	SARKA Ferenc	Applying the linear sliding wear theory for predicting wear of open gear drives that work without lubrication
3	BOUDALI ERREBAI Farid	Discrepancy estimation on simulations of thermal behavior of PCM-gypsum panels using the experimental and the theoretical thermal properties
4	BIHARI János	The Effect of The Gear Wear for The Contact Ratio
5	BARHM Mohamad	A comparison between hybrid method technique and transfer matrix method for design optimization of vehicle muffler
6	VELŐSY András	New approach for characterizing the "naturalness" of building materials
7	NASRY Mohamed	Optimization of an integrated renewable electricity storage system