Virtual event - ICLS 2020-2021
15th International Congress on Logistics and SCM Systems
28-29 September 2021, Poznan, Poland

Conference Programme

Hour	28th September 2021		Hour	29th September 2021
9.00-9.30	**Official opening** link to event		8.15-9.00	**Welcome & keynote** Session Chair: Paulina Golinska-Dawson, DSc. PhD link to event
9.30-10.45	**Keynote speeches** Session Chair: Paulina Golinska- Dawson, DSc. PhD link to event		9.00- 11.00	**Parallel sessions: III.A&III.B&III.C**
10:45-11:00	**Coffee break**		11.00 -11.15	**Coffee break**
11.00- 13.15	**Parallel sessions:** **I.A&I.B&I.C**	**IFLS Board Meeting** **11.00-12.00**	11.15-13.15	**Parallel sessions: IV.A**
13.15-14.00	**Lunch Break**		13.15-13.30	**Coffee break**
14.00-16.00	**Parallel sessions: II.A&II.B&II.C**		13.30 – 14.55	**Keynote speech& Industrial Keynote** Session Chair: Łukasz Hadaś, DSc. PhD link to event
			15.00-15.10	**Conference closing**

All the times are indicated in time zone: Warsaw CEST (GMT+1h)

The ICLS2020-2021 Keynote speakers

Date &Time	Topic	Speaker
Tue, 28th September 9.30-10.05	**Sustainable e-commerce – why deal with it?**	**Arkadiusz Kawa**, **DSc., PhD**, a director of Research Network Łukasiewicz – Institute of Logistics and Warehousing, professor at Poznan School of Logistics, Poland.
Tue, 28th September 10.05-10.45	**Seaport container handling and conflict-Free crane scheduling**	**Erwin Pesch, DSc., PhD,** a full professor at the Faculty of Economics and Business Administration of the University in Siegen and director of the Center for Advanced Studies in Management (CASiM) at the HHL Leipzig Graduate School of Management, Germany.
Wed, 29th September 8.15-9.00	**Covid-fuelled digital transformation in traditional industries and NGOs**	**Adam Olszewski,** BDM at Poznan Supercomputing and Networking Center, Lead of HPC4Poland DIH and PSNC Future Labs, Poznan, Poland
Wed, 29th September 13.30-14.10	**Expanding Boundaries of Global Logistics and Supply Chain Management:** **In Pursuit of Peace and Prosperity in the Post Pandemic World**	**Paul Hong**, **PhD., CMA** Distinguished University Professor; John and Lillian Neff College of Business and Innovation, The University of Toledo, Toledo, OH, 43606, USA
Wed, 29th September 14.10-14.55	**How digitization makes the supply chain more computerized and automatic against COVID-19**	**Hope Chen, PhD, CPSM,** Senior Manager as the Chief of Product Planning and Material Purchasing VP office at ASE, Taiwan

POZNAN UNIVERSITY OF TECHNOLOGY

FACULTY OF ENGINEERING MANAGEMENT

The I.F.L.S./The A.P.F.L.S./The J.S.L.S.

Contribution To World Prosperity Through Logistics / SCM

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Tuesday 28th September 2021

Parallel sessions I - All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	Session I.A	„Sustainability in Logistics and supply chain management" Session chair: Agnieszka Stachowiak, DSc., PhD		Session I.B	"IT solutions for SCM, logistics and operations management" Session Chair: Paweł Pawlewski, DSc. Phd		Session I.C	„Modelling, simulation and optimization in logistics and SCM" Session chair: Taih-cherng Ted Lirn, PhD	
	ID paper	Title	Author/Authors	ID paper	Title	Authors	ID paper	Title	Authors
11:00-11:20	4	Resilience analysis for integrated planning of selective harvesting and post-harvest operations	Thanaphorn Sornprom, Voratas Kachitvichyanukul and Kanokporn Kungwalsong	108	A Proposed Framework for Designing Blockchain Solutions for Logistics in post-Covid scenario and future pandemics	Javed Aslam, Aqeela Saleem, Nokhaiz Tariq Khan and Yun Bae Kim	148	Market area analysis for in-store online order fulfillment: a data driven approach	Tianmin Liu and Hyunwoo Lim
11:20-11:40	136	A financial feasibility study of zero waste manufacturing: Opportunity and value added of agricultural products on the R9 route	Supattraporn Saisomboon, Arunrat Sawettham and Sumalee Ngeoywijit	156	Impact of Internet of Things on Food Supply Chains	Elkafi Hassini, Mohamed Ben-Daya and Zied Bahroun	114	Challenges of the food sector supply chains during the implementation of biosafety measures against COVID-19: A case study of MSEs in Ecuador.	Clara Orellana-Rojas, Carolina Chavez-Campuzano, Andrea Herrera-Cervantes, Yereth Romero, Yndira Guevara and Mario Chong
11:40-12:00	133	Environmental and Economic Value Prediction of Waste Electrical and Electronic Equipment Recycle Using Reverse Logistics: The Case of China's Waste Mobile Phones	Sung Woo Kang and Quan Yu	130	Simulation-based Application for Improving Carton Production Process	Nara Samattapapong and Thiti Mhoraksa	150	Analyzing consumer preference on online grocery fulfillment services: pure online versus omnichannel retailers	Liu Su and Hyunwoo Lim
12:00-12:20	64	Application of the MAC method for risk assessment during manual transport works	Adam Górny	75	Collaborative Automated Picking: A System Evaluation and Control Approach	Mathias Rieder and Richard Verbeet	159	Lean inventory management of the industrial tool distributor in Thailand through data visualization tool	Tuchcha Garrett, Sompop Saengphueng and Nattapong Kongprasert
12:20-12:40	32	Robust reverse logistics network design	Peter Egri, Tamás Kis, Balázs Dávid and Miklós Krész	22	The combination of independent and dependent demands using a material requirements planning (MRP) system for chemotherapy drugs	Victor Suhandi and Ping-Shun Chen	154	Two Echelon Vehicle Routing Problem for Disaster Mapping Process using Cooperated Vehicles Assignment	A.A.N. Perwira Redi, Bertha Maya Sopha Sopha, Rahmad Inca Liperda, Anna Maria Sri Asih Asih, Handina Boedhy Astiana and Nandini Niramaya Sekaringtyas
12:40-13:00	37	Electric Vehicle Routing Problem with Time Windows and Cargo Weight	Sina Rastani, Tuğçe Yüksel and Bülent Çatay	113	Determinants of the use of logistic labels by 3PL and 4PL operators - results of studies in Poland	Adam Koliński, Karolina Werner-Lewandowska	153	Mathematical Modelling for Optimizing Tourist Trip Design with Considering Scoring on Arc Visits	Ryo Geoffrey Widjaja, A.A.N. Perwira Redi, Parida Jewpanya, Muhammad Asrol, Nur Layli Rachmawati and Reny Nadlifatin

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Parallel sessions II - All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	Session II.A	"Decision making in logistics and SCM In the Post-Covid world " Session chair: Beata Mrugalska, DSc., PhD		Session II.B	"AI in logistics and operations management" Session chair: Yenchun Jim Wu, PhD		Session II.C	„Management of transportation and logistics services" Sesssion chair: Rafał Mierzwiak, PhD	
	ID paper	Title	Author/Authors	ID paper	Title	Author/Authors	ID paper	Title	Author/Authors
14:00-14:20	118	A study on the impact of Covid-19 on global ports	Jia-Jun Guo	126	Solving a Location-Allocation-Sizing Problem using Artificial Multiple Intelligences System: A Case Study of Agricultural Water Resources in Northeastern of Thailand	Rerkchai Srivoramas, Ponglert Sangkaphet, Rapeepan Pitakaso, Chutchai Kaewta and Natthapong Nanthasamroeng	141	Reducing Transportation Costs for Fuel Trucks by Enhancing Fuel Economy	Watcharin Boonyarit, Monchai Prukvilailert and Sirorat Pattanapairoj
14:20-14:40	111	Quantity Flexibility Contract: Robust Decisions with second delivery time under Volatile Supply Chains	Kyunghwan Choi and Seongam Moon	127	Optimizing Ambulance Location for Ageing Society using Artificial Multiple Intelligences System	Ponglert Sangkaphet, Natthapong Nanthasamroeng, Rapeepan Pitakaso, Kiatisak Pranet and Chutchai Kaewta	43	The Simulation for the Ideal Optimum Site Model in the Actual Distance Method	Angela Yy Chen and Yutaka Karasawa
14:40-15:00	115	Strategies to Reduce Blood Shortages in the Regional Blood Supply Network	Zbigniew Pasek	128	A Truncated Artificial Multiple Intelligences System for Solving the Vertical Transportation Problem	Rapeepan Pitakaso, Kanchana Sethanan, Chalermchat Theeraviriya, Natthapong Nanthasamroeng, Kiatisak Pranet and Ponglert Sangkaphet	123	Fleet management insights for shared autonomous bike service: A case study for Magdeburg	Imen Haj Salah, Vasu Dev Mukku and Tom Assmann
15:00-15:20	120	An Agent-Based Approach to Evaluate Freight Consolidation Center Strategy for Last Mile Deliveries in Jaipur City, India	Pankaj Kant and Sanjay Gupta	131	Solving Multi-echelon Location Allocation Problem using Artificial Multiple Intelligences System: A Case Study of Agricultural Products Warehouse in the Greater Mekong Subregion	Kiatisak Pranet, Ponglert Sangkaphet, Thanatkij Srichok, Rapeepan Pitakaso, Natthapong Nanthasamroeng and Peema Pornprasert	98	Towards circular economy transition - developing the innovative sustainable practices in logistics industry	Paulina Golinska Dawson
15:20-15:40	107	A Mathematical Framework for Relief Aid Distribution by Considering Fasting Periods: The Case of Padang City, Indonesia	Rahmad Inca Liperda, Nikorn Sirivongpaisal, Reinny Patrisina and Sirirat Suwatcharachaitiwong	137	Deep learning for prediction the trans-border logistics of patients to Medical Center	Arunrat Sawettham, Sumalee Ngeoywijit and Chitphinan Charoenrungrueang			
15:40-16:00	106	A GIS-Based Optimization for Multi-Period Relief Routing Decisions in The Last Mile Distribution by Considering Path Failures: A Case of Padang City, Indonesia	Rahmad Inca Liperda, Nikorn Sirivongpaisal, Gitiza Erwitie and A. A. N. Perwira Redi	135	The circular economy practices of the Tapioca Starch Industry in Northeastern Thailand	Chitphinan Charoenrungrueang, Arunrat Sawettham, Sumalee Ngeoywijit and Sarun Weesaphen			

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Parallel sessions III- All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	Session III.A	„Logistics & SCM in the Post-COVID world" Session chair: Tony Rim Suk, PhD		Session III.B	„Modelling, simulation and optimization in operations management" Session chair: Hyun-Soo HAN, PhD		Session III.C	" Modelling, simulation and optimization in logistics and SCM" Session chair: Karolina Werner-Lewandowska, PhD	
	ID paper	Title	Author/Authors	ID paper	Title	Author/Authors	ID paper	Title	Author/Authors
9:00-9:20	121	A Trolley Deployment Planning and Replenishment Approach for Airside Trolley Services in Hong Kong International Airport	Eugene Wong and Kev Ling	143	Layout Design of Outpatient Department: Simulation Study and Implementation	Chawis Boonmee, Chompoonoot Kasemset and Tinnakorn Phongthiya	138	The Impact of Tighter Regulations on Export Controls in Global Logistics	Kuninori Suzuki, Yoji Murayama and Yi Xing
9:20-9:40	122	An Overdue Shipment Tracking and Monitoring Framework for Aviation Spare Parts Replenishment	Eugene Wong and Kev Ling	145	Intrahospital Patient Transportation System Planning Using Bi-level Decision Model	Thanawat Maka and Chompoonoot Kasemset	158	Geographical Information System Based Heuristic Approach to the Capacitated Vehicle Routing Problem in the FMCG Sector	BuŞra Baytur and Eren Özceylan
9:40-10:00	157	Measuring the Effects of COVID-19 on Airports in Turkey: A Data Envelopment Analysis Approach	Ceren Naz Bulut and Eren Özceylan	144	Improvement of Craniofacial Patient Treatment Service System in Upper North Network Hospital	Chalisa Paiyarom, Chompoonoot Kasemset and Krit Khwan-Ngern	134	Modeling and simulation of coalition formation for horizontal logistics collaboration	Anna Tatarczak and Grzegorz Grela
10:00-10:20	125	Modified Differential Evolution for Solving Tourist Route Planning with Tourism Service Provider Eligibility Constraints	Pawnrat Thumrongvut, Kanchana Sethanan, Kongkidakhon Worasan and Thitipong Jamrus	129	Relief Logistics Optimization Model for Shelter Site Selection and Allocation Model with Priority Victim	Boonyarit Borormrit and Thitipong Jamrus	102	Validation Study of a New Developed Predictive Maintenance Implementation Framework	Marcel André Hoffmann and Rainer Lasch
10:20-10:40	105	Application of Big Data analytics in modern logistics solutions	Jozef Fras and Waldemar Osmólski	52	Human factor in Industry 4.0 - perception of competences of graduates and employees	Anna Stasiuk-Piekarska			
10:40-11:00	139	Improving the efficiency of information flow within the supply chain in rubber smoked sheet production	Panutporn Ruangchoengchum and Poj Dechkerd	116	Particle Swarm Optimization (PSO) for Solving Vehicle Routing Problem with Time Windows in The Food Chain Industry	Prima Arinda Nurul Islami, A.A.N. Perwira Redi, Mirna Lusiani, Parida Jewpanya, Reny Nadlifatin and Agus Supranartha			

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Parallel sessions IV- All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	Session IV.A	„Modelling and optimization of processes in logisitcs and SCM" Session chair: Vincent F. Yu, PhD	
	ID paper	**Title**	**Author/Authors**
11:15-11:35	**17**	An Auction-based Procurement Approach for the Fright Transportation with Crowdshipping	Chefi Triki
11:35-11:55	146	Self-Adaptive Learning Particle Swarm Optimization for Green Vehicle Routing Problem with Mixed Pickup and Delivery	Nitikorn Srijaroon, Kanchana Sethanan and Thitipong Jamrus
11:55-12:15	149	The multi-product vehicle routing problem with cross-docking: a novel strategy hybrid bat algorithm in food industry	Kongkidakhon Worasan, Karn Moonsri, Kanchana Sethanan and Paulina Golinska-Dawson
12:15-12:35	109	Optimizing cold chain logistics based on hyper-personalization	Chen Xing and Qing Chengling
12:35-12:55	119	An approach to evaluate the performance of leagility in a consumer goods supply chain	Lucas M. dos Santos, Eduardo F. R. Loures and Eduardo A. P. Santos
12:55-13:15	155	Two-Echelon Vehicle Routing Problem for Agricultural Area Mapping Operation with Drone	A.A.N. Perwira Redi, Muhammad Reza Chandra Kusuma, Bertha Maya Sopha, Anna Maria Sri Asih and Rahmad Inca Liperda