ISESS 2020

Online Proceedings at http://www.isess.net

Orion, Room C1005/C1040

WEDNESDAY   February 5, 2020
Common Program with Wageningen Data Science Wee

09:00	Registration

10:00-11:15	Plenary	The overview	
	10:00	Opening	Jack van der Vorst
	10:15	Keynote: Data Science in Action!	Marleen Stikker
	10:35	Keynote: Engaging Users: how to make decision support systems relevant to real environmental decision makers	Steven Frysinger
	10:55	Keynote: The IBM Way	Dan Wolfson Bruno da Costa Flach

11:15-11:45	Coffee break and poster exhibition

11:45-13:00	Plenary	Applications and Alliances	
	11:45	Pitches from WUR investment theme Digital Twins	Digital Twin Leaders
	12:15	Connecting to OnePlanet	Marcel Zevenbergen
	12:30	The National Economic Perspective	TBC
	12:45	The Netherlands AI Coalition	S. Ruiter

13:00-14:00	Lunch

14:00-16:00	Parallel sessions	Pick one of the three options	
	14:00-16:00	**WUR Campus Data Science Exchange** (Poster pitches and. Company info stands)	PhD students and exhibitors
	14:00-16:00	**Smart Agri Hubs Workshop** Need to register in advance.	Sjaak Wolfert
	14:00	Data Science benchmarking with applications to Environmental Science	Martha Larson
	14:20	Data Management, Infrastructure, and Education: Workshop feedback and challenges ahead	Mon & Tue workshop organizers
	15:00	Panel Discussion: How to Answer Challenges in Data Science in an AI Lab?	All Keynote Speakers
	15:30	Innovation Center for Artificial Intelligence (ICAI) Labs – What, why, how	Maarten de Rijke

16:00-18:30	Drinks & Bites & Posters

19:00-21:00	ISESS 2020 Dinner	Spakers of the day and ISESS 2020 delegates

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THURSDAY February 6, 2020 morning

09:00	Registration/ Morning coffee

09:00-10:40	Session A	Earth observation systems	Chair: G. Schimak
	09:00	Automated processing of Sentinel-2 products for time-series analysis in grassland monitoring	T Hardy
	09:20	Redefining Agricultural Insurance services using Earth Observation data. The case of Beacon project.	M Lekakis
	09:40	Quantifying Uncertainty for Estimates Derived from Error Matrices in Land Cover Mapping Applications: The Case for a Bayesian Approach	Jordan Phillipson
	10:00	Unsupervised learning of robust representations for change detection on Sentinel-2 Earth Observation images	M Aubrun
	10:20	Producing mid-season nitrogen application maps for arable crops, by combining Sentinel-2 satellite images and agro-meteorological data in a decision support system for farmers	M Lekakis

10:40-11:00	Morning tea/coffee

11:00-12:40	Session B	Data infrastructures	Chair: D. Havlik
	11:00	Investigation of common big data analytics and decision-making requirements across diverse precision agriculture and livestock farming use cases	S. Mouzakitis
	11:20	Using virtual research environments in agro-environmental research	R. Lokers
	11:40	Models in the Cloud: Exploring Next Generation Environmental Software Systems.	W Simm
	12:00	ELFIE - The OGC Environmental Linked Features Interoperability Experiment	K. Schleidt
	12:20	Design of a Web-Service for Formal Descriptions of Domain-Specific Data	J. Sidler

12:40-13:40	Lunch

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THURSDAY   February 6, 2020   afternoon

13:40-15:20	Session C	Data-driven methods in action	Chair: K. Schleidt
	13:40	Interoperability of solutions in a Crisis Management environment showcased in Trial-Austria	G. Schimak
	14:00	Computational infrastructure of SoilGrids 2.0	L. de Sousa
	14:20	Mathematical estimation of particulate air pollution levels by multi angle imaging	O. Vernik
	14:40	Interpolation of Data Measured by Field Harvesters: Deployment, Comparison and Verification	T. Reznik
	15:00	Defining and classifying infrastructural contestation: Towards a synergy between anthropology and data science	D. Dalakoglou

15:20-16:00	Afternoon coffee/tea

16:00-17:00	Session D	Food data analytics and intelligence	Chair: S. Osinga
	16:00	Diet modelling: combining mathematical programming models with data-driven methods	A. Ivancic
	16:20	Dietary intake assessment: from traditional paper-pencil questionnaires to technology-based tools	E. Brouwer-Brolsma
	16:40	Machine learning algorithms for food intelligence: towards a method for more accurate predictions	I. Polychronou

17:00-18:00	**IFIP WG 5.11 Meeting**		**Chair: I.Athanasiadis**
17:00-18:00		Small Meal and Drinks	

18:00-19:00	**Documentaire: Data science pioneers: Conquering the Next Frontier**	Lotte de Vos

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FRIDAY February 7, 2020 morning

09:00	Registration/ Morning coffee

09:20-10:40	Session E	Agri-informatics	Chair: S. Frysinger
	09:20	Can we use the relationship between within-field ele tion and NDVI as an indicator of drought-stress ?	B. Maestrini
	09:40	WISS a Java continuous simulation framework for agro-ecological modelling	D. van Kraalingen
	10:00	Predicting Nitrogen Excretion of Dairy Cattle with Machine Learning	H. Mollenhorst
	10:20	AGINFRA+: Running Crop Simulations on the D4Science distributed e-Infrastructure	R. Knapen

10:40-11:00	Morning tea/coffee

11:00-12:00	Session F	Internet of Things	Chair: G. Schimak
	11:00	An environmental sensor data suite using the OGC SensorThings API	H. van der Schaaf
	11:20	Real-time visualization of methane emission at commercial dairy farms	D. Schokker
	11:40	CLARITY Screening Service for Climate Hazards, Impacts and Effects of the Adaptation Options	Denis Havlik

12:00-13:40	Conference closure and lunch