



Safety of Industrial Automated Systems – SIAS 2024, June 12-13, 2024, Tampere, Finland, Program

Tuesday 11.6.2024 at 18.00 Get-together at Vapriikki				Registration (Ilves 15-17, Vapriikki 17.30-18)
Wednesday 12.6.2024	Presentation	Speaker	Chair	
8:00				Registration + coffee
9:00	Introduction to the topic, program introduction	Johannes Hyrynen VTT	Timo Malm	Welcome
9:20	Machinery safety: Insights from the automation provider	Keynote speaker Minna Kettunen, Fastems Oy Ab		Plenary session
10:00	1. Balancing intended collaboration and safety requirements during the design and implementation of an industrial cobot application - A case study	Damien Burlet-Vienney, Sabrina Jocelyn, Chantal Gauvin, Chun Hong Law, Bertrand Galy and Seyed Hossein Haj Zargarbashi	Jyrki Latokartano, Nicholas Hall	Collaborative robots
10:20	4. Application example: Evaluation of mechanical collisions at workplaces with collaborative robots	Jan Zimmermann, Matthias Clermont, Georg Nischalke-Fehn and Nihad Karacic		
10:40	9. Effects of various factors on Power and Force Limitation function of collaborative robots	David Tihay and Adel Sghaier		
11:00	31. Safety Pilot: Digital Risk Assessment Integrated into Robot Programming	Robert Scharping, Roland Behrens and Norbert Elkmann		
11:20	43. Effects of Interspace and Safety2.0 implementation on safety and well-being in human-robot collaborative environment	Takayoshi Shimizu, Masaki Nobuhiro and Masao Dohi		
11:40	Company presentation: Klinkmann Automation Oy – Smart Safety Solutions	Riku Lemmetty, Klinkmann Automation		
12:00				Lunch
13:00	47. RAS Safety Framework: A Digital Twin-Based Approach to Assurance of Complex Systems	Nikita Johnson Needle, James Douthwaite, Yunus Emre, James Law and Nicholas Hall	Nicholas Hall Timo Malm	Collaborative robots Mobile machinery

13:20	14. EU safety regulations and standards for autonomous mobile machinery	Timo Malm, Risto Tiusanen and Josepha Berger		
13:40	Company presentation: Bowtie methodology and the BowTie Suite	Bilyana Konstantinova, Wolters Kluwer		
14:00				Poster session + coffee
15:20	7. Defeating of Protective Devices: Results of a Recent Survey	Stefan Otto	Jean-Christophe Blaise Timo Malm	Protective devices and safety systems
15:40	32. Design and Development of a Roaming Wireless Safety Emergency Stop	Henry Beuster, Thomas Doebbert, Christoph Cammin, Dmytro Krush and Gerd Scholl		
16:00	12. How can functional AI be safely integrated into a machine?	Michaël Sarrey		
16:20	13. Towards Safer Supervisor-Machine Shared Decision-Making for Runtime Hazard Mitigation in Highly Automated Off-road Machinery	Marea de Koning, Tatiana Minav, Willie L. Brown, Reza Ghabcheloo		
16:40	Guidelines to dinner location			
17:30	Ferry cruise to Viikinsaari	ms Silver Sky / Suomen automaatioseura SIAS 2024		
21:00	Ferry back to the town			
Thursday 13.6.2024				
9:00	The upcoming European Machinery Regulation. A critical review	Keynote speaker Otto Goernemann, SICK AG	Timo Malm	Plenary session
9:30	20. Machine safety with collaborative press brake application	Juho Pirttilahti and Juha Hirvonen	Frans Nilsén Damien Burlet-Vienney	Protective devices and safety systems
9:50	24. A Study of Safety Radar As a Three-Dimensional Electro-Sensitive Protective Equipment	Reiji Nishigaki, Atsunori Hirano and Takeshi Nomura		
10:10	25. Innovative assistance system to prevent accidents on sliding table saws	Thomas Seifen		
10:30	41. The study of design and operation of collaborative machines - risk assessment and communication	Hiroo Kanamaru		
10:50				Coffee
11:10	8. Assessing an automated mining operation with STPA	Josepha Berger, Risto Tiusanen and Timo Malm	Risto Tiusanen, Tsuyoshi Saito	Risk assessment

11:30		23. Proposal of Risk Assessment Method of Collaborative Safety to Improve Safety and Productivity Simultaneously in Manufacturing Field	Shogo Araya, Masaki Nobuhiro, Shoken Shimizu, Hidetoshi Fukui, Tatsuro Mori, Nariaki Murata, Hiroyuki Yano, Rieko Hojo, Yuka Koremura and Nobuyuki Yasui		
11:50		26. Calculating the reliability of a zero energy state system	Pascal Poisson, Sabrina Jocelyn and Yuvin Chinniah		
12:10					Lunch
13:10		16. Towards "Positive Safety" -New trend in occupational safety and health-	Masao Mukaidono, Toshiyuki Kajiya and Toshihiro Fujita	Risto Tiusanen, Tsuyoshi Saito	Risk assessment, safety and cybersecurity
13:30		27. Importance of Education and Qualification Systems to Embrace a Holistic Approach of Human, Technology, Management and Rule Formation for Advancing Safety, Health, and Well-being at Work	Toshihiro Fujita, Masahiko Ariyama and Masao Mukaidono		
13:50		37. Case Study of Conformity Assessment based on ISO 31101 and Safety management systems of Robotic Services	Yoshihiro Nakabo, Kazutsugu Suita, Hiroaki Fujimoto, Hitoshi Kubo, Itsuki Goda, Takeshi Kushibiki, Hayato Ikuma, Matsubayashi Naoto and Takeshima Hiroki		
14:10		50. Tag - and Knowledge-based Standards Documentation	Robert Scharping, Roland Behrens, Jan Zimmermann and Norbert Elkmann		
14:30		6. Cyber risk and machine safety: towards the integration of cyber risk assessment into occupational risk assessment?	Pascal Lamy, Nellie Perrin and Nisrine Ghadban		
14:50		48. New approach to industrial security offers also potential savings	Jonas Stein, Matthias Weitz and Andreas Schmid		
15:10		Discussions between presentations			
15:30					Coffee time
15:50		21. Relation between safety and happiness for worker at work - Introduction of case studies from quantitatively measure and visualize well-being to connect to "KAIZEN"	Rieko Hojo, Keiju Anada, Yuka Koremura and Shoken Shimizu	Toshihiro Fujita, Lien Wioland	Human-machine interaction (Human factors, Education, Work environment)

16:10	36. Examination of unsafe behaviour and conditions causing human errors during human-machine interaction in a collaborative production system	Kazunari Tsukiyama and Rieko Hojo		
16:30	52. A tale of automation safety: Lessons learned from automotive to aviation and beyond	Nadezhda Gotcheva		
16:50	5. Smart mining and emerging occupational health and safety risks in the mining industry: A literature review	Seyedeh Arezoo Baghaei Naeini, François Gauthier and Adel Badri		
17:20	Info about industry visits, Welcome to the next SIAS, Thank you for all			Conclusions
17.40	End of the conference			
Friday 14.6.2024				
	Excursions			
9:00-13.30	Kalmar and Bronto Skylift			
9:00-13.30	Fastems and Tampere University			

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