

**Target Group:**

Occupational health and safety managers and experts, Designers of control systems, machine/production line builders, robot system designers and any kind of engineers. Test and certification bodies concerned about the risks associated with machines.

**Participation:**

Free of charge  
Language: English

**Registration at:**

<https://shop.wsps.ca/collections/functional-safety-and-validation-seminar>

**Place of the seminar:**

Workplace Safety & Prevention Services  
5110 Creekbank Rd,  
Mississauga, ON L4W 0A1  
Canada  
Phone: +1 877-494-9777

**Hotels recommended:** Please book directly

**Courtyard by Marriott Mississauga-Airport Corporate Centre West**

5050 Creekbank Rd, Mississauga, ON L4W 5R2  
<https://www.marriott.com/hotels/fact-sheet/travel/yyzmq-courtyard-mississauga-airport-corporate-centre-west/> - Phone: (905) 625-3555

**Residence Inn by Marriott Mississauga Airport Corporate Centre West**

5070 Creekbank Road, Mississauga, ON L4W 5R2  
<https://www.marriott.com/hotels/travel/yyzmu-residence-inn-mississauga-airport-corporate-centre-west/> - Phone: 905-602-777

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manufacturing Safety Alliance of BC

<https://safetyalliancebc.ca/>



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THE SPIRIT OF SAFETY

[www.pilz.com](http://www.pilz.com)

This seminar is organized by Workplace Safety & Prevention Services (WSPS) and the ISSA-Section Machine and System Safety.

WSPS is a not-for-profit organization committed to protecting Ontario workers and businesses. A proud partner in Ontario's occupational health and safety system and a trusted safety advisor since 1917, WSPS has a rich history of making Ontario workplaces safer. WSPS serves the manufacturing, agricultural and service sectors. As the largest health and safety association in Ontario, we support over 167,000 member firms and 4.1 million workers.

[www.wsps.ca](http://www.wsps.ca)

The ISSA was founded in 1927 with its headquarters in Geneva. Today it is active in 158 countries with 330 member institutions worldwide.

The Section on Machine and System Safety is committed to improving safety and health at work in the field of machine and system safety.

The mission of the Section for Electricity, Gas and Water is the protection of workers against electrical accidents and occupational diseases due to electricity and ionizing radiation.

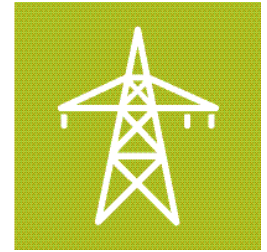
[www.issa.int](http://www.issa.int)



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Section on Machine and System Safety



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Section for Electricity, Gas and Water



# Seminar Functional Safety and Validation

## May 26<sup>th</sup>/27<sup>th</sup>, 2022 Toronto

## About this Seminar:

The objective of the seminar is to give an overview about some international standards for machinery safety and their application. These standards provide manufacturers of machines the basic technical rules for the design of safe machinery. The seminar is intended to transmit the participants the basic knowledge of these standards and their use in the industrial area. The seminar also shows practical application examples. The speakers give information as experts involved in the standardization machinery safety.

### Moderator:

- Klaus-Dieter Becker, German Social Accident Insurance Institution for the energy, textile, electrical and media sectors BGETEM, Cologne (D)

### Speakers:

- Klaus-Dieter Becker, BGETEM, Cologne (D)
- Patrick Gehlen, Siemens AG, Erlangen (D)
- Otto Görnemann, Sick AG, Waldkirch (D)
- Jens Juehling, Head of the BGETEM`s prevention department, Cologne (D)
- Fabio Pera, Italian National Institute for Insurance against Accidents at Work (INAIL), Rome (IT)
- Hossein Sinaei, Manufacturing Safety Alliance of BC, Chilliwack, Canada
- Florian Spitteller, VDE e.V., Frankfurt/M (D)
- Robert Vomiero, WSPS, Toronto, Canada
- Dietrich Warmbier, ROSS Controls, Ferndale, MI (USA)
- Michael Wilson, WSPS, Toronto, Canada

## Program

Thursday, May 26<sup>th</sup>, 2022

10.00 a.m.	Registration	
11.00 a.m.	Welcome Address Lynn Brownell, CEO WSPS Klaus Becker, BGETEM	
11.30 a.m.	Risk assessment using in CSA Z432 - Machine Safeguarding	Hossein Sinaei
12.00 a.m.	ISO 14119 – Understanding Different Types of Interlocking Devices	Michael Wilson/ Robert Vomiero
12.30 p.m.	Lunch Break	
1.30 p.m.	IEC 60204-1 Electrical equipment of machinery	Jens Jühling
2.15 p.m.	ISO 13849-1 „Safety-related part of control systems; Part 1: General	Klaus-Dieter Becker
3.00 p.m.	Coffee Break	
3.30 p.m.	ISO 13849-1 „Safety-related part of control systems; Part 1: General (Continuation)	Klaus-Dieter Becker
4.00 p.m.	Industrial Security – Lessons learned from attacks on industrial control systems	Patrick Gehlen
4.45 p.m.	Discussion	

## Program

Friday, May 27<sup>th</sup>, 2022

9.30 a.m.	Practical Application of ISO 13849-1	Michael Wilson/ Robert Vomiero
10.15 a.m.	Functional safety and cyber security: dependencies, standards and pragmatic approaches	Florian Spitteller
11.00 a.m.	Fluid power safety (Hydraulics / Pneumatics)	Dietrich Warmbier
11.45 a.m.	Discussion	
12.00 a.m.	Lunch Break	
1.00 p.m.	Practical application of machinery safety standards. Example: Industrial robot systems. ISO 10218-2	Otto Görnemann
1.45 p.m.	Example how to apply ISO 13849-1, -2 (SISTEMA) including validation	Fabio Pera/ Klaus Becker
3.00 p.m.	Discussion	