

**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:**

See website

**Place of the seminar:**

Workplace Safety & Prevention Services  
5110 Creebank 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 Creebank 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 Creebank 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/>



VDE DIN [www.dke.de](http://www.dke.de)

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.

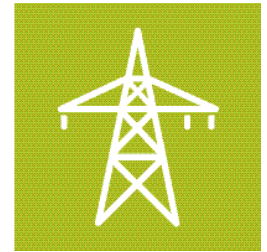
[www.issa.int](http://www.issa.int)



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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**  
**Sept. 22<sup>nd</sup>/23<sup>rd</sup>, 2021**  
**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)
- 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)
- Thomas Schulz, BGHM, Düsseldorf (D)
- Hossein Sinaei, Manufacturing Safety Alliance of BC, Chilliwack, Canada
- Jonas Stein, Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA)
- Robert Vomiero, WSPS, Toronto, Canada
- Dietrich Warmbier, ROSS Controls, Troy, MI (USA)
- Michael Wilson, WSPS, Toronto, Canada

## Program

### Wednesday – September 22<sup>nd</sup>, 2021

2.00 p.m.	Registration	
3.00 p.m.	Welcome Address Lynn Brownell, CEO WSPS Hans-Jürgen Bischoff, ISSA-Section MSS Klaus Becker, BGETEM	
3.30 p.m.	Risk assessment using in CSA Z432 - Machine Safeguarding	Hossein Sinaei
4.00 p.m.	ISO 14119 – Understanding Different Types of Interlocking Devices	Michael Wilson/ Robert Vomiero
4.30 p.m.	Coffee Break	
5.00 p.m.	IEC 60204-1 Electrical equipment of machinery	Jens Jühling
5.30 p.m.	Discussion	
6.00 p.m.	End of the first day	

## Program

### Thursday – September 23<sup>rd</sup>, 2021

9.00 a.m.	ISO 13849-1 „Safety-related part of control systems; Part 1: General principles for design”	Klaus-Dieter Becker
10.15 a.m.	Software requirement ISO 13849-1	Thomas Schulz
10.45 a.m.	Practical Application of ISO 13849-1	Michael Wilson/ Robert Vomiero
11.15 a.m.	Coffee Break	
11.45 a.m.	Safeguarding and complementary measures	Otto Görnemann
12.30 a.m.	Fluid power safety (Hydraulics / Pneumatics)	Dietrich Warmbier
1.15 p.m.	Lunch Break	
2.15 p.m.	Industrial Security – Lessons learned from attacks on industrial control systems	Jonas Stein
3.00 p.m.	Discussion and Coffee Break	
3.30 p.m.	Practical application of machinery safety standards. Example: Industrial robot systems. ISO 10218-2	Otto Görnemann
4.15 p.m.	Example how to apply ISO 13849-1, -2 (SISTEMA) including validation	Fabio Pera/ Klaus Becker
5.00 p.m.	End of the seminar	