IEC publishes a white paper on the future of safety

Geneva, Switzerland, 11 November 2020 – *The Internet of Things, big data, advanced robotics and artificial intelligence are transforming the connection between technology and people. New and complex safety requirements have emerged with the expansion of intelligent systems. As more machines are integrated into factory and logistic automation, mobility and healthcare processes, the need to ensure safe procedures for people working with machines is increasing.*

It may even be possible that machines gain a characteristic that is traditionally the reserve of humans: intelligence. While the probability of such a scenario is subject to debate, it is known that unforeseen consequences for humans inevitably emerge when new technology is introduced. Consequently, and now more than ever, it is critical to ensure that human safety is placed at the centre of the new human-machine relationship.

A new IEC White Paper
The IEC has published a new white paper, *Safety in the future*, which examines the topic of safety in the new digital environment. It references current social trends and initiatives, such as the UN Sustainable Development Goals, as well as various real-life examples that are pioneering innovative safety solutions for the future.

These solutions share the common understanding that the concept of safety will be delivered in an integrated system in which workers, machines and the environment collaborate. Based on this common understanding, the IEC White Paper introduces a collaborative framework called the tripartite system for safety to provide a systems approach to examining key elements of safety in the future. The collaboration will be made possible by information flows going back and forth between the different intelligent agents of the system: human workers, smart machines, and the IT-enabled environment in which they function.

However, to achieve the goals of the tripartite system for safety will require significant efforts from the standardization community. For example, it will be necessary for standardization organizations to mitigate some of the most pressing challenges related to the decision-making between machines and humans as well as to expand their holistic approaches to safety by gathering insight from the fields of safety psychology, sociology and human behaviour.

The IEC White Paper concludes by formulating recommendations of both a general nature as well as specifically addressed to the IEC and its committees.

Downloading the IEC White Paper
The development of the IEC White Paper *Safety in the future* has been made possible by the efforts of the IEC Market Strategy Board safety in the future project team. It can be downloaded from the IEC website free-of-charge.

Further Information
Gabriela Ehrlich
Tel: +41 22 919 02 78
Mob: +41 79 600 56 72
Email: geh@iec.ch
Skype: gabriela.ehrlich

About the IEC

The IEC (International Electrotechnical Commission) is a global, not-for-profit membership organization that brings together 173 countries and coordinates the work of 20 000 experts globally. IEC International Standards and conformity assessment work underpins international trade in electrical and electronic goods. It facilitates electricity access, and verifies the safety, performance and interoperability of electric and electronic devices and systems, including for example consumer devices such as mobile phones or refrigerators, office and medical equipment, information technology, electricity generation, and much more.

http://www.iec.ch