

We are proud to invite you to our yearly cEDM event. This year's theme is:

## Security and Reliability of Electronics



Electronics Everywhere, Everything Connected, Internet of Things (IoT), City of Things, Industry 4.0 all imply a distributed network of a large number of electronic devices that must be able to handle confidential, safety critical or other secured data in a reliable way. With 50 billion active devices by 2020 it is likely that security incidents will increase as well as the failure probability of the network. A high level of network availability throughout the envisaged operational lifetime is essential. Security and reliability of electronics is key for IoT. The relationship between both will be explored in this event.

We selected four speakers for you to highlight different security and reliability aspects. *Ulrich Seldeslachts, LSEC*, will explain you how to implement security-thinking into electronics design as well as the importance of the supply of qualified components and reliable electronics.

The payment industry is characterized by a high level of security. With the rise of “always connected” devices, the need for the same type of protection is emerging in a lot of other industries. *Peter Timmermans, ATOS Worldline*, will present the attacks against which we have to protect a payment terminal, how this can be realized and what are the consequences of this type of precautions.

Obviously, electronic device failures are unwanted. Surprisingly, the unique features of certain IC transistor failure mechanisms can be exploited to create low cost, high security solutions. *Thomas Kallstenius, imec*, introduces you into the world of security embedding in Integrated Circuits.

Electronics reliability is the main theme in today's cEDM activities. *Geert Willems, imec*, will explain why Physics-of-Failure based Design-for-Reliability is essential for the development of reliably operating secured electronics networks.



## Agenda

13h30 **Doors open**

14h00 **Welcome**

14h10 **Security Design Thinking for Industrializing IoT and Industry 4.0.**  
*Ulrich Seldeslachts, LSEC – Leaders in Security*

14h40 **Hardware Security in the payment industry**  
*Peter Timmermans, ATOS Worldline – Innovation / IoT / System-on-Chip*

15h10 **Failure mechanisms turned into an asset: new ways of embedding key security elements in IC's.**  
*Thomas Kallstenius, imec - Program Director Security and Privacy*

15h40 **Towards Physics-of-Failure based “Reliable-by-Design” electronics**  
*Geert Willems, imec – Electronic Assembly/cEDM*

16h10 **Knowledge-exchange and networking.**

19h00 **Closing**

## Practical information

cEDM event participation:

- Participation is free of charge
- Location: imec, Kapeldreef 75, 3001 Heverlee
- Registration via e-mail: [academy@imec.be](mailto:academy@imec.be)

## Center for Electronics Design & Manufacturing

Interested in member- or partnership of cEDM, or need for more information :  
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More cEDM info: [www.cedm.be](http://www.cedm.be)

The Center for Electronics Design & Manufacturing (cEDM) mission:

*To support industry by means of **knowledge** creation and sharing, **scientifically sound methodologies** and **collaboration** throughout the electronic supply chain, in the development and production of high quality, reliable electronic modules (PBA).*

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