

EtherCAT Technology Group  
Members

July 2016

**EtherCAT Technical Training Class &  
Safety over EtherCAT Seminar** on Tuesday, September 27, 2016

Dear ETG Member,

we invite you to participate in the **EtherCAT Technical Training Class** or the **Safety over EtherCAT Seminar**, taking place at the Hotel NH Frankfurt Mörfelden Conference Center, conveniently located close to Frankfurt/Main, Germany.

**EtherCAT Technical Training Class (Full Day)**

**Date:** Tuesday, September 27, 2016  
**Location:** NH Frankfurt Mörfelden Conference Center  
**Time:** 10:30 am — 6:00 pm  
Sign up starts at 10:00 am (CET)



You can expect detailed information regarding the EtherCAT technology that puts you in the position to plan your EtherCAT application and/or to start your development afterwards. In the morning the communication protocol is introduced, the afternoon will see hardware implementation related topics as well. Please find the agenda on the next page. The meeting is intended for developers, product managers and all of you that have not attended the ETG Technical Committee meetings in the past. If you are already familiar with EtherCAT, send your colleagues! The agenda can be found on page 2.

**Safety over EtherCAT Seminar (Half Day)**

**Date:** Tuesday, September 27, 2016  
**Location:** NH Frankfurt Mörfelden Conference Center  
**Time:** 12:30 am — 5:00 pm  
Sign up starts at 01:30 pm (CET)



Functional safety is becoming a crucial selling point. Decision makers, product manager as well as R&D engineers who are involved in their companies safety product strategy are invited to this seminar. We will give you a comprehensive overview about today's requirements for safety machine architectures with the focus on safety communication with the Safety over EtherCAT protocol. Learn about the technology and its implementation. The agenda can be found on page 3 of this invitation.

There is no participation fee, only the room costs have to be paid directly to the hotel. Presentations will be held in English, if non-German-speaking members sign up.

Please sign up online as soon as possible in order to help us with the organization:  
[www.ethercat.org/registration\\_tc](http://www.ethercat.org/registration_tc)

**Registration deadline is Friday, September 9, 2016.**

One day later, on September 28, there will be the ETG Technical Committee Meeting. Please have a look at the separate invitation for this event:  
[www.ethercat.org/download/ETG\\_TechnicalCommittee\\_2016\\_09.pdf](http://www.ethercat.org/download/ETG_TechnicalCommittee_2016_09.pdf)

Best regards,  
Your EtherCAT Technology Group Team

## EtherCAT Technical Training Class (Full Day)

Tuesday, September 27, 2016

### »» Agenda

|          |   |
|----------|---|
| 10:00 am | Inscription, Welcome Coffee   |
| 10:30 am | EtherCAT Communication Protocol (I) <ul style="list-style-type: none"><li>– EtherCAT Basics</li><li>– Slave Structure</li><li>– Physical Layer and Device Model</li><li>– Data Link Layer</li></ul>   |
| 12:30 am | Lunch Break, Coffee   |
| 01:30 pm | EtherCAT Communication Protocol (II) <ul style="list-style-type: none"><li>– Application Layer<ul style="list-style-type: none"><li>• State Machine</li><li>• Mailbox Protocols (CoE, SoE, EoE)</li><li>• Slave Information Interface (EEPROM)</li></ul></li><li>– Device Profiles</li><li>– Distributed Clocks</li></ul> |
| 03:30 pm | Coffee Break  |
| 03:45 pm | Tools, Standards and Implementation <ul style="list-style-type: none"><li>– Device Description</li><li>– Tools</li><li>– EtherCAT Master</li><li>– Standard &amp; References</li></ul>  |
| 05:30 pm | Ask the Experts   |
| 06:00 pm | End of Training Class   |



### »» Online Registration


[https://www.ethercat.org/registration\\_tc](https://www.ethercat.org/registration_tc)

Only ETG members are eligible to participate.

## Safety over EtherCAT Seminar (Half Day)

Tuesday, September 27, 2016

### »» Agenda

|          |                              |  |
|----------|------------------------------|--|
| 12:30 am | Lunch                        |  |
| 01:30 pm | Inscription, Coffee          |  |
| 02:00 pm | Safety over EtherCAT Seminar |  |
| 03:30 pm | Coffee Break                 |  |
| 03:45 pm | Safety over EtherCAT Seminar |  |
| 05:00 pm | End of Seminar               |  |

Safety over  
EtherCAT.

### »» Topics

We will address the following topics:

- What are the relevant standards?
- How to build a safety system compliant to the IEC 61508?
- What are the needs and efforts for your company?
- Are there ready to use solutions available (Make or Buy)?
- How to integrate Safety over EtherCAT in your product?
- Can I still use my standard EtherCAT Master and infrastructure?

**And last but not least:**

- What are the benefits for your company and for the end-user?
- Of course there will be time for Q&A!

### »» Online Registration

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Only ETG members are eligible to participate.

## EtherCAT Technical Training & Safety over EtherCAT Seminar

Tuesday, September 27, 2016

### »» Location

**Hotel NH Frankfurt Mörfelden Conference Center \*\*\*\***

NEW

Hessenring 9,

64546 Mörfelden / Walldorf Frankfurt

[www.nh-hotels.de/hotel/nh-frankfurt-morfelden-conference-center](http://www.nh-hotels.de/hotel/nh-frankfurt-morfelden-conference-center)



The NH Frankfurt Mörfelden Conference Center hotel is ideally situated for business travelers, in the center of the Mörfelden Walldorf industrial area and a 15 minutes' drive from Frankfurt airport.

Please note that travel and lodging have to be arranged by the participants themselves.

#### How to get there

[www.nh-hotels.com/hotel/nh-frankfurt-morfelden-conference-center/map](http://www.nh-hotels.com/hotel/nh-frankfurt-morfelden-conference-center/map)

### »» Accomodation

ETG has blocked some rooms for 27-28th of September for a special rate of € 107,10 (incl. Breakfast). If you are interested, please contact the hotel directly via +49 30 2238 0233 or +800 0115 0116 and mention 'EtherCAT'. All rooms are air-conditioned and with free Wi-Fi.

[www.nh-hotels.com/hotel/nh-frankfurt-morfelden-conference-center/rooms/standard-room](http://www.nh-hotels.com/hotel/nh-frankfurt-morfelden-conference-center/rooms/standard-room)