

ETG Headquarters Ostendstraße 196 D-90482 Nuremberg Germany

Phone: +49 (0) 911 / 54056 - 20 Fax: +49 (0) 911 / 54056 - 29 Web: http://www.ethercat.org E-Mail: info@ethercat.org

August 2010

EtherCAT Technology Group Members

EtherCAT Implementation Training Class Kyoto, Japan, October 25/26, 2010

Dear ETG Member,

we invite you to participate in the two days EtherCAT Implementation Training Class taking place

- on October 25/26, 2010
- in Kyoto, Japan,
- at ETG Office Japan hosted by ASTEM RI.

You can expect detailed information regarding the EtherCAT technology that helps you with your EtherCAT implementation.

The communication technology is introduced in detail on the first day: from the physical layer, the telegram structure and on-the-fly processing up to the application layer protocols for process data mapping and object configuration. On the second day you will get useful information for hardware and software implementation of EtherCAT in your own device. Please find the detailed agenda on the next page.

The practical implementation aspects on the second day of the training class are based on the EtherCAT evaluation kit (EL9820 by Beckhoff) and the Slave Sample Code which comes with the kit. It is helpful (but not indispensible) to obtain this kit in advance.

The meeting is intended mainly for developers. Product manager who want to improve their knowledge about the basic mechanisms of EtherCAT are also welcome.

Participation fee:

JPY 100,000 plus VAT5% per participant. ETG Membership is a pre-requisite for registration.

Please sign up as soon as possible in order to help us with the organization.

Best regards,

EtherCAT Technology Group ETG Office Japan, ASTEM RI



EtherCAT Implementation Training Class

October 25/26, 2010

Monday, October 25th, 2010

Start of the meeting at 09:00 a.m. End of the meeting at 05:00 p.m.

EtherCAT Communication Basics

- EtherCAT Basics
- Slave Structure
- Physical Layer
- Device Model
- Data Link Layer
 - Frame Structure
 - Addressing, Commands
 - Memory/Registers, SyncManager, FMMUs
 - Diagnosis
- Distributed Clocks (DC)
- Application Layer
 - EtherCAT State Machine (ESM)
 - Mailbox (Mailbox Protocols)
 - Slave Information Interface (EEPROM)
- EtherCAT Slave Information (ESI) File in XML

Tuesday, October 26th, 2010

Start of the meeting at 09:00 a.m. End of the meeting at 05:00 p.m.

EtherCAT Communication Basics

- Tools (Configuration Tool, Monitor, ...)
- EtherCAT Master
- Device Profiles
- Modular Devices
- Drives

Implementation Aspects

- Hardware for EtherCAT
- Process Data Interfaces (PDI):
 - 8/16 bit Microcontroller Interface
 - 32 bit Parallel Interface
 - SPI
- PDI Timing
- Slave Sample Source Code (SSC)
- EtherCAT Slave Controller (ESC)
- Network Monitor

Questions and answers



EtherCAT Implementation Training Class

October 25/26, 2010

Location Map:

EtherCAT Office Japan, ASTEM RI 134 Chudoji Minami-machi, Shimogyo, Kyoto 600-8813, Japan

Phone: +81 (75) 366 0161 Fax: +81 (75) 315 2899 Email: info.jp@ethercat.org







Transportation:

Train

Kyoto station/JR - Tanbaguchi station/JR

*JR: Japan Rail Way

Airplane

Kansai International Airport - Airport Express/JR or Airport limousine Bus - Kyoto station/JR – Tanbaguchi station/JR Osaka International Airport - Airport limousine Bus - Kyoto station/JR - Tanbaguchi station/JR *Tanbaguchi station/JR Sagano-line is the next stop from Kyoto station/JR.

Hotel Recommendation:

KYOTO CENTURY HOTEL (http://www.kyoto-centuryhotel.co.jp/cgi-bin/cms/index.cgi)

NEW MITAKO HOTEL KYOTO (http://www.miyakohotels.ne.jp/newmiyako/)
RIHGA Royal Hotel Kyoto (http://www.rihga.com/kyoto/index.html)

*All above within walking distance from Kyoto Station



EtherCAT Implementation Training Class

October 25/26, 2010

Registration Form

Yes, I want to register for the EtherCAT Implementation Training Class, EtherCAT Office Japan, Kyoto on October 25/26.

Company Details

• •		
Company		
Street, Number P.O. Box		
Country Code ZIP City		
Company Phone		
Number of Participants		JPY 100,000 plus 5% VAT per participant
	Total fee	
Participant Details	Participant #1	Participant #2 (Optional)
Name		
Position		
Direct Phone		
Fax		
E-Mail		
Remarks		
Please provide your comments		
EtherCAT Evaluation Kit available	☐ Yes ☐ No	
Signature		

Please register as soon as possible due to space constraints.

Send registration form via e-mail to <u>info.jp@ethercat.org</u>. In case of problems with email (e.g. spam filter issues), please fill in, print and fax to +81 (75) 315 2899.