

EtherCAT®

Technology Group

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The latest meeting of the ETG Semiconductor Working Group took place at Lam Research in Fremont, California.

EtherCAT activities in China: exhibitions and seminars



The ETG booth at the Industrial Automation show in Beijing was well attended and was proof of the Chinese market's great interest in EtherCAT.

At this year's Industrial Automation Beijing Show, the successor event to FA/PA, which took place between June 20 and 22 in Beijing, ETG members from China and abroad exhibited in a joint booth. A total of 12 co-exhibitors had more than 40 different EtherCAT products on display. The booth was well attended, and the feedback was positive. EtherCAT is used in many applications in China, ranging from power generation to machine tool manufacturing.

Between September 11 and 14, an EtherCAT seminar series for system integrator and machine builder decision makers will take place in Beijing, Chengdu, Guangzhou and Shanghai. The event series, supported by several EtherCAT Technology Group (ETG) members, will be accompanied by a table-top exhibition.

ETG Semiconductor Working Group in the home stretch

Less than a year after the kick-off meeting at the end of October 2011, 12 comprehensive profile documents have already reached the review stage: The ETG Semiconductor Working Group is working at record-breaking speed. The working group meetings to-date alone correspond to a cumulative effort of around five person years. There is, of course, also the profile work "at home," web meetings and telephone conferences. The working group meetings take place in California's Silicon Valley in the US, usually at one of the large manufacturers of semiconductor manufacturing equipment, the end users of EtherCAT technology. The composition of the working groups is downright ideal: In addition to users, fieldbus experts from companies that often offer specialized devices for the semiconductor industry are represented. Participants come from North America, Europe and Asia, thus representing the worldwide market for semiconductor production. The working group is headed by Daniel R. Judd of Arlington Laboratories, who already played a key role in shaping the previous fieldbus standard in the semiconductor industry. Technical and organizational support for these activities is provided by the EtherCAT experts from the ETG offices in the US and Germany, who ensure that the results seamlessly match the existing EtherCAT specification and tools.

The next three-day face-to-face meeting is scheduled for mid-October 2012 at Applied Materials in Santa Clara, California. In addition to final coordination of the profile documents, the meeting will also focus on conformance tests for devices developed based on the profiles.

Florian Häfele, who provides technical support for the working group from the ETG office in Germany, said: "The exceptionally strong commitment of the large number of participants indicates that the semiconductor industry means business with their decision to use EtherCAT. Everyone is keen to make a start with implementations, because customers are waiting to use EtherCAT not only for motion control, standard I/O and gateways, but also to integrate industry-specific devices such as mass flow controllers, vacuum gauges or turbo pumps directly into the EtherCAT system."

ETG member meetings in Korea and Japan

At their regional meetings in Korea and Japan this June, the EtherCAT Technology Group provided current information on the latest technological developments and worldwide activities. In addition, local members presented impressive EtherCAT applications and explained the associated customer benefits.

The Japan member meeting in Yokohama on June 12 was attended by around 120 Japanese ETG members. The high number of participants demonstrates the continuing strong interest in EtherCAT technology by the Japanese automation industry. One of the highlights of the meeting was the presentation by rapid prototyping specialist ExOne Asia. The company presented an EtherCAT-controlled 3D printer, which produces sand-casting molds for precision metal parts. PC-based EtherCAT control cut the cycle time of the machine by an exceptional 50 % compared to a conventional solution, significantly increasing both the productivity and the precision as a result.

The Korea member meeting which took place in Seoul was attended by more than 80 Korean EtherCAT users and system providers. Daewoo Shipbuilding and Marine Engineering presented a new, EtherCAT-based welding robot for shipbuilding applications. The portable 6-axis robot is placed in a U-shaped cell in the hull, where sensors determine its precise position in order to locate the weld points. The operator chooses the weld schedule and starts the robot, which then moves through the cell. The robot can weld independently for up to half an hour before the operator has to intervene again. The controller for the EtherCAT drives in the robot is housed in a movable enclosure, which can be located up to 50 m away from the robot.



At the ETG meeting in Seoul, South Korea, Daewoo Shipbuilding and Marine Engineering presented a new, EtherCAT-based welding robot.



The ETG member meeting in Yokohama, Japan, was attended by 120 participants, representing 75 of the 240 Japanese ETG member companies.



Techno Frontier Show in Japan

Large crowds gathered in the hall during the presentation on EtherCAT technology by Masanori Obata, the Japanese ETG representative, at the recent Techno Frontier Show, which took place between July 11 and 13 in Tokyo. The ETG booth was organized by the members of the Japanese regional ETG committee and the Japanese ETG office. It was supported by numerous co-exhibitors, who mainly presented Japanese EtherCAT products. In parallel to the exhibition, an EtherCAT introduction seminar took place, which was very popular and attracted 70 participants.

At the recent Techno Frontier Show in Tokyo, Masanori Obata impressed a large crowd with his EtherCAT presentation.