ETG News

January 2019 | #30

EtherCAT Technology Group

EtherCAT Technology Group
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CONTENT

further information

www.ethercat.org

EDITORIAL

Dear Members,

When we set out in 2003 to establish our then new Ethernet fieldbus system, EtherCAT, in the international arena, we were very much young upstarts. All we had was a revolutionary piece of technology that was compelling in the truest sense.

What we did back then would now probably be termed “disruptive”. When we launched ETG, its rules were unconventional. We kept the group exceptionally open, and provided developer support free of charge. And the group’s organizational structure was designed to achieve rapid results. Now, 15 highly successful years later, we have more than 5,000 members in no fewer than 65 countries, and there is no sign of that growth stalling any time soon.

Since the very beginning, many of you have played a highly active role in the technical working groups – and apparently genuinely enjoy doing so. We hear, time and again, that people find things a little more easy going in the working groups and ETG offices than anywhere else – less formal, but all the more results-driven. And the engineers like it that way. Nonetheless, the Technical Advisory Board makes sure that EtherCAT stays solid and stable: Expansion is allowed; modification is not. And new expansions are on the horizon – so we look forward to the next successful and exciting 15 years!

With best regards on behalf of the entire EtherCAT Technology Group team,

Martin Rostan, Executive Director

SPECIFICATION

ETG now offers vendor-independent diagnosis interface

ETG has specified a new vendor-independent diagnosis interface, which allows third-party tools to access diagnostic information from EtherCAT networks. The software-based interface can be implemented in controllers offered by any device manufacturer, which makes it an interesting feature to vendors of both master devices and diagnostic tools.

Diagnosis is one of the most important functions of a modern fieldbus system. EtherCAT provides extensive diagnostic information both at the hardware and software levels. An outstanding EtherCAT feature is the ability to not only detect errors but also to precisely locate them.

ETG has now specified this user-friendly, vendor-independent diagnosis interface so that third-party diagnostic tools can work with any master implementation. The standardized interface allows access to EtherCAT network diagnostic information for both hardware and software. Diagnostic tools or HMIs can thus retrieve the EtherCAT network topology information, compare it with the expected configuration and detect any disturbances.

The specification ETG.1510 “Profile for Master Diagnosis Interface” enhances the “EtherCAT Master Classes” specification and extends the EtherCAT Master Object Dictionary already defined in the “Modular Device Profile” specification. Likewise, the access mechanism makes use of the already specified Mailbox Gateway functionality. Based on already existing standards, the new profile is therefore easy and straightforward to implement.

Press release (EN | DE | CN)

Profile: www.ethercat.org/etg1510

EtherCAT adoption rate: vendors

EtherCAT is wide spread in different markets as well as countries. Please have a look at the impressive figures:

175 EtherCAT Drive Vendors

218 EtherCAT Master Vendors + 7*

118 EtherCAT I/O Vendors

*Indicated changes are compared to the last ETG news.

Playing with figures (Vol. 6)

We have more than **5100** members from **65** countries and **6** continents. EtherCAT is implemented on **35** different RTOS and over **1000** products have been entered in the official EtherCAT Product Guide. There are **33** different Safety over EtherCAT vendors and **55** sensor/actor manufacturers. Furthermore EtherCAT offers connectivity to **33** other communication systems. In 2018, ETG booths were shown at **13** trade shows and EtherCAT roadshows took place in **18** different countries and **37** cities. Over **500** new members have joined the ETG in **2018**.

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REVIEW

ETG at SPS IPC Drives 2018

This year's SPS IPC Drives in Nuremberg, Germany, holds two milestone for the ETG: Exactly 15 years ago the organization began its activities at the 2003 trade show with 33 official founding members. This year, German intralogistics company WITRON has become the 5,000th ETG member.

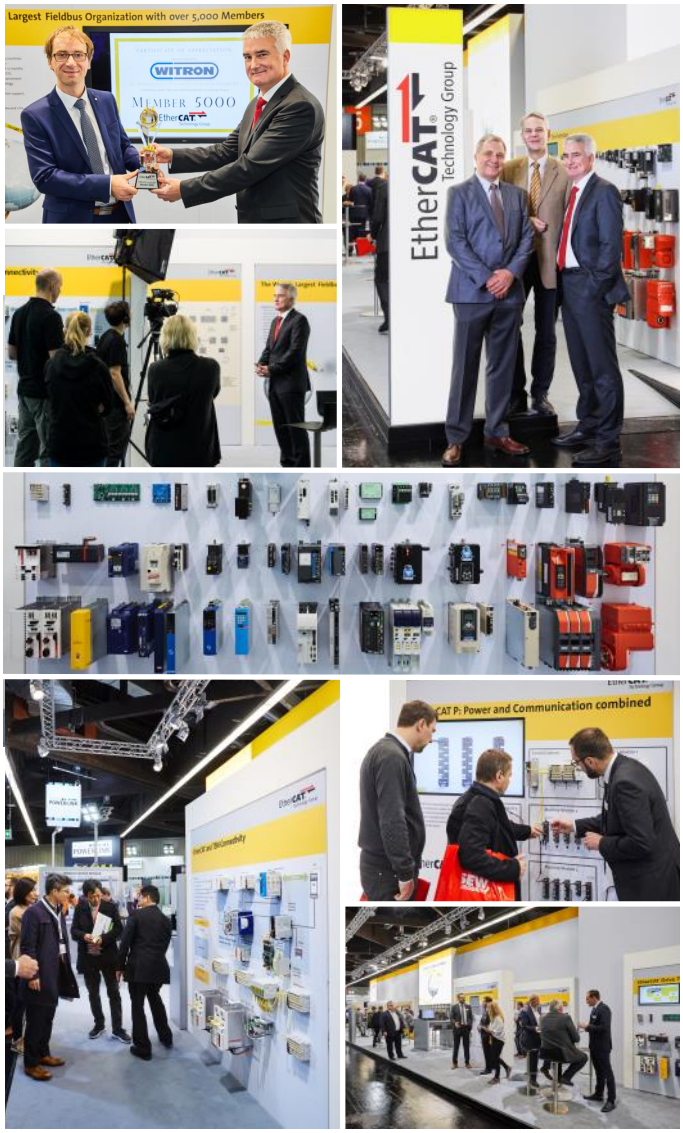
Our booth displayed a great variety of EtherCAT products, including control systems, drive technology, I/O systems & gateways, sensors & actuators, development products, Safety over EtherCAT, and EtherCAT P products. Altogether, more than 500 EtherCAT solutions were shown.

A new highlight was the master-independent diagnosis interface demonstration. But also other live demos, such as EtherCAT and TSN, Safety over EtherCAT and EtherCAT P, drew many interested visitors onto the booth.

We want to thank all co-exhibitors cordially for their participation and personal work at our ETG Joint Booth!

For all those who couldn't make it to our booth at the SPS trade show, all products and demos will be shown again at HANNOVER MESSE 2019, April 01-05, at booth 9-D18.

Actual ETG joint booth co-exhibitors:



PARTICIPATION OFFER

Exhibit at EtherCAT joint booth at HANNOVER MESSE 2019

Our booth concept has proven to be successful at past trade shows and features multi-vendor product presentations, interactive elements and live demonstrations of EtherCAT's outstanding features. At HANNOVER MESSE 2019, we are striving to make our presence even better and invite you to come on board!

By participating in the ETG Joint Booth you'll raise awareness of your own EtherCAT products, services, and expertise in the context of the world's largest fieldbus organization! Take advantage of this chance to boost your EtherCAT sales with minimum effort and small financial contribution.

Our flexible concept allows ETG members to present their company and products in several different ways, including having personnel from their company at our booth to talk directly to the visitors.

We already have 58 co-exhibitors to show more than 500 different EtherCAT products at our ETG Joint Booth in hall 9-D18. Use this late registration to add yours today!

Book the special offer today!
Registration deadline: Jan 18

WHY JOIN US?
One price – no hidden costs
extraordinary awareness
… further benefits see here!

Details:

Trade show: HANNOVER MESSE (Hannover, Germany)

Date: Apr 01-05, 2019

Registration deadline: Friday, January 18, 2019

Price: €1,800 (net) *(€1,200 for companies with <20 employees)*

Please check all offer details incl. the registration form here:
ETG Joint Booth Participation Offer & Registration Form

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ORGANISATION

Dmitry Dzilno elected to Board of Directors of the ETG

The ETG has a new member on its Board of Directors: During the SPS IPC Drives 2018 exhibition in Nuremberg, Germany, Dmitry A. Dzilno of Applied Materials was elected to the post by the assembled representatives of ETG member companies. He succeeds Erich Hutflesz of Schuler Group, who has been active on the ETG Board of Directors since 2005.

During SPS IPC Drives 2018, ETG held its Membership Assembly with board elections. Erich Hutflesz has contributed to the development of ETG as a board member for 13 years, and during this time, ETG has grown from 241 to more than 5,000 members. A champion of EtherCAT since the beginning, the departing ETG board member now oversees the functional safety of hydraulic presses at Schuler Pressen GmbH – originally an EtherCAT pilot project – and is no longer available for a new term as a result. The Membership Assembly decided to honour Erich Hutflesz with an honorary ETG membership for his many years of service.

Dmitry A. Dzilno from Applied Materials (AMAT) was elected as Hutflesz's successor on the Board of Directors. As head of control technology for the Platform Engineering Division, Dzilno recognized the exciting potential that EtherCAT offered for the semiconductor industry at a very early stage and made AMAT one of the founding members of ETG in 2003. Dzilno has been instrumental in making EtherCAT the leading fieldbus in chip manufacturing. He is currently Head of Engineering at the ALD Division as Managing Director and Senior Principal Member of Technical Staff at AMAT.

Dr. Peter Heidrich, Professor of Engineering at Pforzheim University of Applied Sciences, and Martin Rostan, Executive Director of ETG, were confirmed in continuing their roles on the Board of Directors during the Membership Assembly.

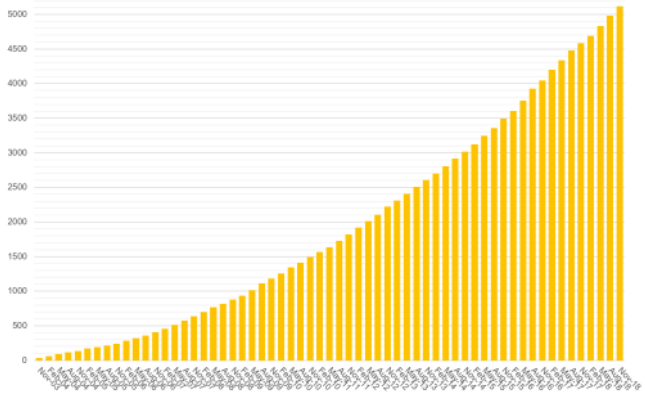
Press release (EN | DE | CN)

Membership development

During the last year the ETG has constantly grown and, as of beginning 2019, counts 5,175 members from 65 countries and 6 continents. ETG continues to be the world's largest fieldbus organization, and a truly global organization as well.

Besides its strong growth in Europe, there is further increase in new membership applications from Asia and America.

Find all members listed here:
www.ethercat.org/members



WITRON is ETG member #5,000

With the addition of WITRON Logistics + Informatics GmbH, ETG celebrated reaching the milestone of 5,000 members.

An award ceremony marking the landmark occasion took place at SPS IPC Drives 2018, and Josef Uschold, Head of PLC Development, accepted the award on behalf of WITRON. WITRON is a medium-sized family-owned company based in Bavaria, which, as a general contractor, specializes in the planning and production of logistics and material flow systems. Founded in 1971, WITRON is one of the world's market leaders in the planning, realization and operation of highly dynamic storage and picking systems used in intralogistics applications.

Press release (EN | DE | CN)

WEBSITE

EtherCAT Product Guide reaches 1,000 entries

The EtherCAT Product Guide reflects the striking variety of EtherCAT. As of today, over 1,000 products and services have been entered by ETG member companies.

The guide includes slave devices like drives, I/O systems, sensors, valves, gateways and interfaces, master systems, including PLC, IPC, PAC, embedded, motion and test and measurement systems, as well as functional safety and EtherCAT P products.

One should note, that many entries contain whole product series, and also numerous products have not been entered yet. The total number of EtherCAT products is therefore considerably higher.

„The number of Product Guide entries show the broad acceptance of EtherCAT. Not only are there a high number of EtherCAT products, but also a great variety“, says Oliver Fels, ETG Technology Marketing.

Member companies can add their own EtherCAT products or services for free. Simply fill our the Product Guide Entry Form and send to info@ethercat.org.

Add your product today!

Product Guide Entry Form (EN | DE | CN | JP)

EtherCAT Product Guide: www.ethercat.org/products

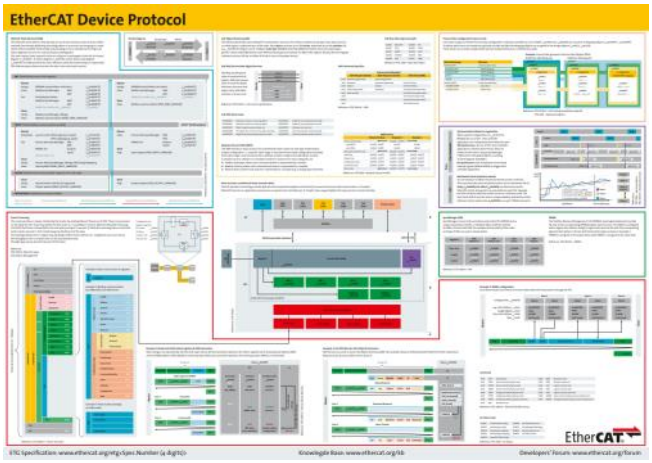
New EtherCAT Device Protocol (EDP) poster

The EtherCAT device protocol poster is now available for download on the ETG website. Additionally, printed copies will be handed out at HANNOVER MESSE.

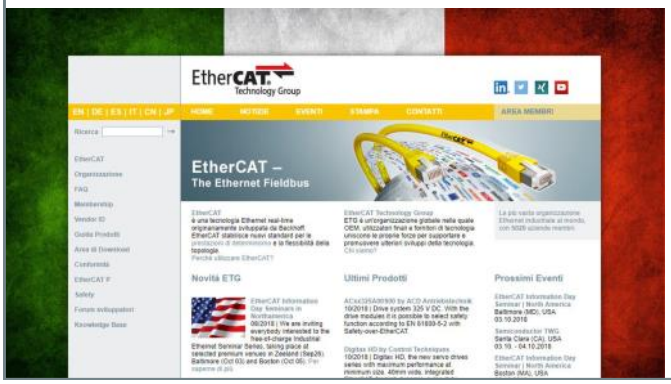
The EtherCAT Device Protocol, also known as EtherCAT Protocol, describes the field level communication principle within a master-slave system. The poster describes the main principles of EtherCAT, the frame structure and its processing in the EtherCAT Slave Controller (ESC). It provides details about used registers and objects, regarding the logical ESC units.

It is aimed to support the developer during the development process and provide a convenient access to further information about the respective specification by giving a structured and practical overview.

Download the poster as PDF here.



Official ETG website and brochure now available in Italian and Spanish



The official website www.ethercat.org has been translated into two new languages: Italian and Spanish. The website is therefore now available in six different languages.

At the same time, the EtherCAT brochure has been released in Italian and Spanish as well.

The brochure is now available in seven different languages: English, German, Spanish, Italian, Chinese, Japanese and Korean.

A French version will be released in early 2019.

EVENTS

Upcoming Industrial Ethernet Seminars in Q1/Q2 2019

ETG has planned further seminars as part of their worldwide Industrial Ethernet Seminar Series, starting with Malaysia. Further seminars will be announced soon!

Malaysia: March 11 – 13

- Johor Bahru
- Penang

Please get in contact with us if you are interested to be part of our seminar series as co-sponsor!

Registration for participants is always free of charge. You may make your local customers and colleagues aware of this excellent opportunity to learn about EtherCAT.

Trainings and workshops

For Q1/Q2 2019, ETG has planned further events.

EtherCAT Introductory Seminar
Event details
Kyoto, Japan, 01.02.

Industrial Open Network Seminar
Event details
Kumamoto & Nagasaki, Japan, 14.02. - 15.02.

EtherCAT Technical Training Class
Event details
Raunheim (Frankfurt), Germany, 09.04.

Safety over EtherCAT Seminar
Event details
Raunheim (Frankfurt), Germany, 09.04.

EtherCAT Development Seminar
Event details
Kyoto, Japan, 24.05.

Further trainings and workshops will be announced soon, so please check the event section from time to time.

Registration will open timely for each specific event, but all ETG companies will be informed via email in addition.

ETG trade show participations worldwide Q1/Q2 2019

embedded world
Event details
Nuremberg, Germany, 26.02. - 28.02.

Automation World
Event details
Seoul, South Korea, 27.03. - 29.03.

SIMM—Shenzhen International Machinery Manufacturing Industry Exhibition
Event details
Shenzhen, China, 28.03. - 31.03.

HANNOVER MESSE
Event details
Hannover, Germany, 01.04. - 05.04.

TECHNO-FRONTIER
Event details
Chiba, Japan, 17.04. - 19.04.

IAMD - Integrated Automation, Motion & Drives
Event details
Beijing, China, 08.05. - 10.05.

Call for co-exhibitors is available for some of the events listed above, and will be distributed to all ETG members worldwide. Please get in contact with us if you are interested to be part of our ETG tradeshows.

Further ETG events

ETG Marketing Committee | Spring 2019
Event details
Frankfurt, Germany, 19.03.

2019 Spring European EtherCAT Plug Fest
Invitation & Registration
Ravensburg, Germany, 14.05. - 15.05.2019

ETG Technical Committee (TC) Meeting | Spring 2019
Event details
Raunheim (Frankfurt), Germany, 10.04.

For more information refer to the event section on the official website: www.ethercat.org/events

ORGANISATION

New members (since last news) in order of membership application

We welcome all new members and thank you for joining forces to promote and advance the EtherCAT technology.

- Foster & Wager Manufacturer's Representative
- Vectory Sensor Systems
- Cencorp Automation Technology
- Guangdong Sumida Automation
- Han's Smart Control Technology
- NTCSOFT
- Hyundai Heavy Industries Holdings
- EcoTronic
- GEMSS Medical Systems
- Fiessler Elektronik
- Beijing Chymotion Control Technology
- OMRON Electronics Iberia
- GTSystem
- Amada Miyachi America
- Endex Automation Technology
- Venture International
- MotionBank
- Vaisala
- Elekta Instrument
- ecocoach
- Knorr-Bremse Fékrendszerek
- AutomationWare
- GUILIN WINDCON
- Pearls of Life
- DeviceRadio
- TOHAN DENSHI KIKI
- GeSiM - Gesellschaft für Silizium-Mikrosysteme
- Daiwa-eletec
- Medineering
- KANTO AIRCRAFT INSTRUMENT
- Isar Aerospace Technologies
- seven dreamers laundroid
- Jabil Circuit Magyarország
- Ultimaker
- Miyagi Nikon Precision
- Robin Radar Systems
- APA
- Korea Railroad Research Institute (KRRI)
- PLASOURCE
- LITE-ON ELECTRONICS (GUANGZHOU)
- NK Labs
- Dynomerk Controls
- STICHT Technologie
- FURONTEER
- Hammer-IMS
- TOKYO KEIKI
- Osaka University, Graduate School of Engineering Science, Dept. of System Innovation, Adaptive Robotics Laboratory
- JAY Electronique
- KANOMAX JAPAN
- Automation Modules
- Terzo Power Systems
- TNK
- MAKINO MILLING MACHINE
- O.B.System
- Suzhou Linkhou Robot
- DMC
- Middle East Technical University, ATLAS Robotics Research Group (ATLAS Interdisciplinary Robotic Research Laboratory)
- LinkDyn Robotics
- Warlowe
- University of Twente, Techno Centrum voor Onderwijs en Onderzoek (Techno Center for Education and Research) TCO
- ADTEC Technology
- Veeren Electronic Design Solutions (V.E.D.S.)
- Oetiker Schweiz
- Olympus Controls
- Dedicated Systems Australia
- Philip Morris Products
- Beijing NiMotion Control Technology
- CECI TECHNOLOGY
- Interface Design Associates (IDAPL)
- Kangwon National University, College of Engineering, Department of Mechatronics Engineering, Micro·Nano·BioSystems Lab.
- Olympus NDT Canada, a subsidiary of Olympus Scientific Solutions Americas
- Koyo Electronics (Wuxi)
- GEPA
- React AI (trading name React Robotics)
- SoftWear Automation
- BK ELECTRONICS
- FerroAtlántica I+D
- Long Yang Enterprise
- NEXTW Technology
- MEODAT Messtechnik, Ortung und Datenverarbeitung
- Shanghai Zhansheng Intelligent Technology
- Mikrodust
- Kyungpook National University College of Engineering, School of Mechanical Engineering, Field Robotics Laboratory
- Excelpoint Systems (India)
- Ningbo ZD-Automation
- alpiscan
- Mitutoyo
- Technische Universität Wien (TU Wien), Fakultät für Elektrotechnik und Informationstechnik, Institut für Automatisierungs- und Regelungstechnik (ACIN), Advanced Mechatronic Systems (AMS)
- Mabuchi Motor
- Festo Korea
- Shanghai Golytec Automation
- Ingenieurbüro Lachtrup
- Redcur
- Goyo Electronics
- Shenzhen Farwide Electric
- Motion Tech Automation (MTA)
- AŽD Praha
- Airity Technologies
- WUHAN DBLC SCIENCE & TECHNOLOGY
- Room3327
- WalthMac Measurement & Control Technology
- "Stankin-TPO" ("Stankin - Technological Training and Education")
- EVRESIS COMPUTER SOFTWARE
- DMDW Service di Davide Di Marco & C.
- Forlinx Embedded Technology
- Exceed Automation
- FUZHOU FU CHANG WECON ELECTRONIC TECHNOLOGY
- Salunda
- Hypersen Technologies
- Chengdu Sino-Tech Smart Energy
- Advanced Manufacturing Technology Development Center
- MRC
- Zuritronic
- YUSHIN PRECISION EQUIPMENT
- China Wide Prevention Telecom Technology
- Yanfeng Automotive Interior Systems
- Inje University, College of Engineering, Department of Electronic, Telecommunications, Mechanical, and Automotive Engineering
- Bore Automation Tech.
- Allestec
- Pressure Design Hydraulics
- Love Electronics
- National Formosa University, Department of Aeronautical Engineering, Innovative Design and Energy Application Lab. (IDEALab)
- OPCsoft
- Cajo Technologies
- Mondragon Assembly
- Hochschule Landshut, Fakultät Informatik
- Reynolds Group
- Continental Tyre South Africa
- Tianjin Automa Technology
- Panasonic Software Development Center Dalian
- iASYS Technology Solution
- Molex Ireland
- Thermo Fisher Scientific (Bremen)
- Hitachi IE Systems
- HENAN XINZHILIN ELECTROMECHANICAL DEVICE
- TCOS System
- Froude
- Saira Electronics
- Löwenstein Medical
- SMAC
- II-VI
- General Electric Renovables España
- Shenzhen Liwi Automation
- Carnegie Mellon University, The Robotics Institute, Biorobotics Lab
- ZEROSYSTEM
- AITEC
- Selcom Group
- Adamant Namiki Precision Jewel
- Hangzhou ConfirmWare Technology
- EMP Designs
- INSYS MICROELECTRONICS
- Ulyanovsk State University, Research and Information Technology, Scientific Research
- Fontys University of Applied Sciences, School of ICT & Technologies
- Laboratoires Industriels G. Pichot
- Higerman CNC Technology (SZ)
- OPTEX FA
- OpenWorks Engineering
- Université de Versailles Saint-Quentin-en-Yvelines, Laboratoire d'Ingénierie des Systèmes de Versailles (LISV)
- Hangzhou SIASUN Robot & Automation
- Toshiba Infrastructure Systems & Solutions
- Sensor Instruments Entwicklungs- und Vertriebs
- HILSTER Testing Solutions
- Automatisation JRT
- "Gheorghe Asachi" Technical University of Iaşi, Faculty of Automatic Control and Computer Engineering, Department of Automatic Control and Applied Informatics
- PULS
- FUNDACIÓN DIOCESANAS - JESÚS OBRERO FUNDAZIOA (EGIBIDE)
- Reboocon Bionics
- Shenzhen Hayhon Equipment Technologies
- Photon Control
- Eredi Bassi Araldo di Bassi R. (kurz Eredi Bassi Araldo)
- Shanghai Koryo Electronics
- The University of Tokyo, Graduate School of Information Science and Technology, Department of Mechano-Informatics, Intelligent Systems and Informatics Laboratory
- Manroland Sheetfed
- GUANGZHOU CORESING ROBOT TECHNOLOGY
- SK hynix
- Inovance Technology Europe
- SAITEL
- PiezoMotor Uppsala
- Arend Prozessautomation
- Bürkert Australia
- Dinkle Enterprise
- SCM Group
- Strategy Automation
- STONE CHILD AUTOTAINMENT
- Dalian Hi-Sensor Technology
- Dave Engineering (DE Design Works)
- Nanjing Solidot Electronic Technology
- ALTINAY Robot Technologies (Altınay Robot Teknolojileri)
- "ITS-Sibir"
- ACTIA Automotive
- Elite Robot
- Indian Institute of Science Interdisciplinary Centre for Energy Research (ICER)
- Institute for Infocomm Research, Robotics & Autonomous Systems [member of the Agency for Science, Technology and Research (A*STAR)]
- NTB Interstaatliche Hochschule für Technik Buchs, Institut für Ingenieurinformatik
- "Autogenmash"
- Lunghwa University of Science and Technology, College of Engineering Department of Electronic, Engineering
- Clavis Company – a division od Macnica Inc.
- Mast Global Logistics – a division of Lbrands
- Rocket Lab
- BETAMONT
- swiss-sonic ultraschall
- A. Sturzenegger Elektronik
- Komito Bleu
- Energid Technologies
- KOMOTEK
- E-TEAM di Righini Bruno e C.
- Lunitek
- TROY ENTERPRISE
- Soft Harmony
- Fitz-Thors Engineering

Please find the full list of members online: www.ethercat.org/members