Creating safety applications with TSN functions is now easier than ever

15 November 2023

At SPS – Smart Production Solutions 2023, the CC-Link Partner Association (CLPA) announced new products and services for the development of safety devices with CC-Link IE TSN connectivity. This addition to the existing offering, supported by CLPA members Mitsubishi Electric and Neuron Automation, will help drive the implementation of highly effective, convergent industrial automation applications for functional safety.

The CC-Link IE TSN development ecosystem consists of a broad range of software and hardware tools to help automation vendors create compatible products. The latest addition to the ecosystem is Mitsubishi Electric's safety protocol stack, which is TÜV certified to meet IEC 61508 standards and can therefore support applications with safety integrity level (SIL) requirements up to SIL3. This enables industrial automation vendors to create safety devices compatible with CC-Link IE TSN, the first open industrial gigabit Ethernet with Time-Sensitive Networking (TSN) functions.

The safety protocol stack now available enables device manufacturers to develop fail-safe devices for safety ecosystems in CC-Link IE TSN converged networks. This, in turn, reduces costs and effort for machine and plant builders by allowing standard control data, fail-safe application data and best-effort, non-time-critical data such as video streams to be transported simultaneously over just one network via CC-Link IE TSN.

Andreas Pfaff, Division Manager - European Development Centre at Mitsubishi Electric, explains: "There is a considerable increase in demand for safety solutions as well as industrial automation products that make Industry 4.0 real. We are proud to launch our latest development option for CC-Link IE TSN, which addresses both needs as it will drive the delivery of devices and systems that can ensure functional safety while communicating over cutting-edge networks."

As a pre-certified component, the safety protocol stack greatly helps in the design and creation of devices with SIL ratings. It reduces the expensive and lengthy work of having to develop and certify embedded safety code in house, streamlining development, certification and validation activities. In addition, automation vendors based in Europe will be able to benefit from extensive, localised assistance from Neuron Automation.

The company's experts have a proven track record of providing a comprehensive toolkit for the creation of engineering solutions, including firmware and hardware development for safety systems. As a partner, Neuron Automation can support the reduction of time-to-market and associated costs while helping de-risk safety projects.

Robert Mühlfellner, Chief Technology Officer at Neuron Automation, comments: "Advanced safety solutions are in high demand globally, and we are proud to help European companies deliver them. SIL2 and SIL3 applications are becoming increasingly popular. Our ability to help companies adopt the new safety stack from Mitsubishi Electric will help them quickly develop competitive products that can drive their profitability while addressing their most ambitious customer demands."

John Browett, General Manager at the CLPA Europe, concludes: "We are delighted to announce this latest solution and service offering for industrial automation players in Europe. Thanks to this combination, we can drive the implementation of effective safety communications over converged CC-Link IE TSN networks, enabling the economical setup of highly connected, smart factories."

Anyone interested in learning more about the expanded CC-Link IE TSN development ecosystem and safety offering can visit the CLPA on Stand 108, Hall 5 at SPS 2023, from 14th-16th November 2023, at Nürnberg Messe, Nuremberg, Germany: https://sps.mesago.com/nuernberg/en/exhibitor-search.detail.html/cc-link-partner-association-europe.html#exhibitorheadline

Image captions:

Image 1: There is a considerable increase in demand for safety solutions as well as industrial automation products that make Industry 4.0 real. (©istock/ gorodenkoff)

The image(s) distributed with this press release are for Editorial use only and are subject to copyright. The image(s) may only be used to accompany the press release mentioned here, no other use is permitted.

About The CC-Link Partner Association (CLPA)

The CLPA is an international organisation founded in 2000 dedicated to the technical development and promotion of the CC-Link family of open automation networks. The CLPA's key technology is CC-Link IE TSN, the world's first open industrial Ethernet to combine gigabit bandwidth with Time Sensitive Networking (TSN), making it the leading solution for Industry 4.0 applications. Currently the CLPA has over 4,200 member companies worldwide, and more than 2,800 compatible products available from over 380 manufacturers. Over 40 million devices using CLPA technology are in use worldwide.

Further Information:
Website: eu.cc-link.org
LinkedIn: https://www.linkedin.com/company/cc-link-partner-association-europe/
Twitter: twitter.com/cc_linknews
YouTube: youtube.com/user/CLPAEurope

Press contact:
CC-Link Partner Association Europe
John Browett
General Manager
Tel.: +44 (0) 7768 338708
john.browett@eu.cc-link.org

PR agency:
DMA Europa
Anne-Marie Howe
Progress House, Great Western Avenue, Worcester,
WR5 1AQ, UK
Tel.: +44 (0) 1905 917477
anne-marie.howe@markettechgroup.com
news.dmaeuropa.com