



INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

Application form for international organizations wishing to create a liaison with an IEC technical committee

Technical Committee or Subcommittee concerned (TC number and title)

TC 65/SC 65C: Industrial networks

Applicant Organization:

IEEE

Liaison category (see the [ISO/IEC Directives](#) Clause 1.17.2 for details):

- ☐ A (at the Committee level)
- ☐ B (at the Committee level)
- ☒ C (at the Working Group level)

Background:

The IEEE 802.3 Ethernet Working Group notes that IEC TC 65/SC 65C is considering a new work item proposal [PNW 65C-1365 ED1](#) 'Industrial networks – Fieldbus specifications – Part 2-100: Physical layer specification and service definition – Type 100 elements' in IEC TC 65/SC 65C/WG 9 Industrial networks. The IEEE 802.3 Ethernet Working Group understands that this work item intends to add 10BASE-T1L and 100BASE-T1L to the IEC 61158-2 Physical Layer specifications. The IEEE 802.3 Ethernet Working Group has originated, and is working on further Physical Layer and channel specifications applicable to industrial networks. These include 10BASE-T1L and 100BASE-T1L, single-pair Power over Ethernet (SPoE), previously referred to as Power over Data Lines (PoDL), 10BASE-T1M, and a new powering method for single-pair Ethernet networks, Multidrop Power over Ethernet (MPoE).

Detailed information concerning the general requirements applicable to liaisons, different categories of liaisons, eligibility criteria, rights and obligations of liaison organizations is contained in the [ISO/IEC Directives, Part 1 and IEC Supplement, Clause 1.17](#).

To be completed by the applicant organization

Eligibility criteria

The applicant confirms that the organization:

- ☒ is not for profit
- ☐ is a legal entity
(NOTE: this is a requirement only for Category A or B liaisons)
- ☐ is membership-based and open to members worldwide or over a broad region
(NOTE: this is a requirement only for Category A or B liaisons)
- ☒ through its activities and membership demonstrates that it has the competence and expertise to contribute to the development of International Standards or the authority to promote their implementation
- ☒ has a process for stakeholder engagement and consensus decision-making to develop the input it provides

Justification for liaison request

The task of IEC TC 65/SC 65C/JWG 10 'Industrial Cabling (linked to ISO/IEC JTC 1/SC 25)' is to develop standards for the cabling of industrial networks. This task intersects with the work of the IEEE 802.3 Ethernet Working Group, which defines channel specifications for use by Physical Layer devices (PHYs) which are referenced by standards developed in IEC TC 65/SC 65C, such as 10BASE-T1L. The IEEE 802.3 Ethernet Working Group, therefore, possesses relevant technical expertise in the topics addressed by IEC TC 65/SC 65C/JWG 10.

Additionally, establishing a liaison relationship between these two groups can enhance coordination on current and planned work in both organisations. This liaison would complement IEEE 802.3's long-standing Category C liaison with ISO/IEC JTC 1/SC 25/WG 3, while also enabling IEEE 802.3 to bring additional perspectives from the equipment point of view, particularly regarding DC Power distribution.

Contact details of liaison representative(s)

Title	First name	Last name	E-mail
Mr	George	Zimmerman	george@cmephyconsulting.com

- ☐ I accept the responsibilities and obligations of liaison organizations, as outlined in the [ISO/IEC Directives, Part 1 and IEC Supplement, Clause 1.17](#), including the [IEC Copyright Policy and Implementation Guidelines](#).

Name	Date
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