

# IEEE 802.3 Ethernet Working Group TIA TR-42 Liaison to IEEE 802.3

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# Introduction to TIA

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- **Telecommunications Industry Association**
- **[www.tiaonline.org](http://www.tiaonline.org)**
- **TR-42: Defines mechanical and transmission requirements for copper twisted-pair, optical fiber, and coaxial cabling and components**
- **Chris DiMinico is outgoing liaison from IEEE 802.3 to TIA TR-42**

# Agenda and TIA Meeting Overview

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- **Most recent TR-42 Plenary week:  
June 5-9, 2022 in Omaha Nebraska, web**
- **Review TR-42 subcommittee activities**
  - **8 subcommittees met**
- **Update on project development**

# TIA TR-42 Activities

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- **TR-42.1 (Premises Infrastructure)**
  - **New project, TSB to describe support of applications by various cabling types, Sunny Xu editor, draft expected in September**
  - **ANSI/TIA-942-C, “Telecommunications Infrastructure Standard for Data Centers, comments resolved and default ballot circulated**
  - **ANSI/TIA-570-E, revision of residential cabling standard, comments resolved and second ballot to be circulated**

# TIA TR-42 Activities

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- **TR-42.1 (Premises Infrastructure), cont.:**
  - **ANSI/TIA-758-C, “Customer-Owned Outside Plant Telecommunications Infrastructure Standard” to be circulated for default ballot**
  - **New project for ANSI/TIA-568.1-E, to consolidate ANSI/TIA-568.0-D and ‘.1-D, and ANSI/TIA-862, draft for review expected in September**
  - **ANSI/TIA-5017-A, Physical Security, comments were resolved at an interim meeting, ballot was circulated which is still open**

# TIA TR-42 Activities

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- **TR-42.1 (Premises Infrastructure), cont.:**
  - **ANSI/TIA-1179-B, “Healthcare Facility Telecommunications Infrastructure Standard”**  
**Comments resolved, publication authorized**

# TIA TR-42 Activities

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- **TR-42.3 (Pathways, Spaces, and Grounding):**
  - **ANSI/TIA-569-E, Pathways and Spaces, reviewed draft, review will continue in September**
  - **ANSI/TIA-607-E, Grounding and Bonding, resolved comments and authorized default ballot**
- **TR-42.5 (Terms and Symbols):**
  - **Definitions, acronyms, units of measure, and symbols maintained in a working document**

# TIA TR-42 Activities

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- **TR-42.7 (Copper Cabling):**
  - **ANSI/TIA-568.2-E, Copper systems and components, comments resolved, second ballot to be circulated**
  - **ANSI/TIA-568.5-1, “Single Twisted-Pair Cabling and Components Standard Addendum 1, some corrections” Circulating for fourth industry ballot**

# TIA TR-42 Activities

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- **TR-42.7 (Copper Cabling), cont.:**
  - **New project: ANSI/TIA-568.6, “Single-Pair Multidrop Cabling and Components Standards” under development**
  - **TSB-184-A-2, “Guidelines for Supporting Power Delivery over Balanced Single Twisted-Pair Cabling” resolved most comments, document being held awaiting progress on ANSI/TIA-568.5-1**
  - **TSB-190-A, shared sheath, revision of TSB-190, new project started, draft to be reviewed in September**

# TIA TR-42 Activities

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- **TR-42.9 (Industrial Infrastructure):**
  - **ANSI/TIA-1005-B, “Telecommunications Infrastructure Standard for Industrial Premises” comments resolved, document being held awaiting ANSI/TIA-568.7**
  - **ANSI/TIA-568.7, “Balanced Single Twisted-Pair Communications Cabling and Components Standard for Industrial Premises” Ballot closed June 19**

# TIA TR-42 Activities

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- **TR-42.11 (Optical Fiber Systems):**
  - **Contributions on the topic of Tier Testing OTDR vs. LSPM**
    - **Recommendation for a ballot at the next meeting so that formal comments can start to be collected and documented.**
  - **Contribution on the topic of Polarity and Symbols**
    - **Healthy debate regarding best symbology for polarity. No formal conclusion reached. There is agreement that something can be done to make improvements. Ad Hoc group to be created to continue to review.**
  - **PAR approved for addendum to ANSI/TIA 568.3-E to be (-1).  
Call for contributions to be included/discussed in addendum**

# TIA TR-42 Activities

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- **TR-42.12 (Optical Fibers and Cables):**
  - **~30 FOTP documents have passed the stability date, will need to be reaffirmed or adopt IEC documents.**
    - **Collaboration with ICEA to determine which documents need to be revised in order to retain or reobtain ANSI accreditation**
  - **7 FOTP's requiring immediate attention to be revised for ANSI accreditation; documents being edited by either Michael Stover, Derek Huffman, or Zach Clampitt**
    - **FOTP-25: Impact Testing of Optical Fiber Cables**
    - **FOTP-41: Compressive Loading Resistance of Optical Fiber Cables**
    - **FOTP-98: Fiber Optic Cable External Freezing Test**
    - **FOTP-84: Jacket Self-Adhesion (Blocking) Test for Optical Fiber Cable**
    - **FOTP-89: Optical Fiber Cable Jacket Elongation and Tensile Strength**
    - **FOTP-91: Fiber Optic Cable Twist-Bend Test**
    - **FOTP-38: Measurement of Fiber Strain in Cables Under Tensile Load**
  - **FOTP's to be harmonized with respective IEC procedures where applicable**

# TIA TR-42 Activities

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- **TR-42.13 (Passive Optical Devices and Metrology)**
  - **IEC adoption projects continue to progress.**
    - **Many documents due for re-affirmation (some are more than 15 years old). Sunny to lead task group to review the list and decide on actions for re-affirmations.**
  - **QSFP-DD dual duplex LC and MPO pitch and total width continued to be discussed offline during the week of the meetings**
    - **Proposals being put together for the MSA group**

# Upcoming TIA Meetings

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## **TR-42 Plenary Meetings**

**September 25-29**

**To be hybrid Face-to-face (Tulsa) and virtual**

**[www.tiaonline.org](http://www.tiaonline.org)**

# Thank you

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