



2024 CALL FOR TECHNICAL PAPERS

*Participate in the premier event for new technologies
in cable & connectivity materials, products, processes
and applications.*



**Cable & Connectivity
Industry Forum™**

by **IWCS**

October 14–17, 2024

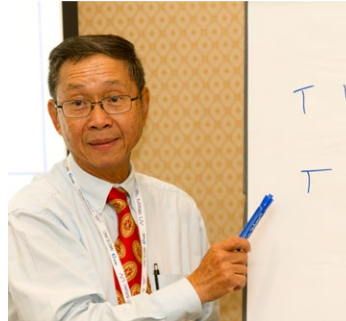
Providence, Rhode Island, USA

ABOUT THE IWCS FORUM

The 2024 IWCS Cable & Connectivity Industry Forum is scheduled to take place October 14–17, 2024 in Providence, Rhode Island, USA. For over 72 years, the IWCS Forum has been the world’s leading event for peer-reviewed papers and presentations that feature technologies and trends in cable and connectivity for the communications, data, electronics, power, industrial, automotive and aerospace industries.

Technical Paper Presenters receive discounted event registration.

The cornerstone of the Forum is the Technical Symposium, which allows authors of technical papers to present their research to attendees. Additional event components include a Plenary Session Luncheon with influential Keynote presentation and an awards ceremony, Supplier Exhibition™, Industry Trend Discussions, Executive Session, Professional Development Courses, and plenty of networking opportunities.



WHY SUBMIT A TECHNICAL PAPER?



International Recognition

Gain exposure for yourself and your company. Accepted papers will be widely disseminated with broad exposure opportunities for the topic, author, and company to thousands of stakeholders internationally.



Published Research Archive

Accepted papers will be published in the Forum proceedings and in the IWCS online archive. Several will be republished by IWCS in industry trade journals and papers may be republished by the author when authorized with IWCS permission.



Educate the Industry

Help advance the worldwide cable and connectivity industry by sharing your research. In addition to presenting at the Forum, authors may participate in the IWCS Webinar Series, a live presentation of your paper with a global audience.

REFER YOUR COLLEAGUES!



Opportunity to receive complimentary full-access registration to the 2024 IWCS Forum.

Share the IWCS Call for Papers with your colleagues throughout the industry. When your colleagues submit their abstract, they will be asked to enter your name as the referral source. The person who refers the most authors of Technical Papers will receive complimentary full-access registration to the 2024 Cable & Connectivity Industry Forum in Orlando, Florida, USA.

*May not name yourself as your own referral source

Additional information about the IWCS Forum, abstract submission requirements, and selection criteria is available at: iwcs.org/present

WHO SHOULD SUBMIT A TECHNICAL PAPER?

If your work is of interest to the cable and connectivity industry, you should submit a Technical Paper Abstract. IWCS accepts submissions from all industry professionals, with no limitation of job title or level of experience. Examples of past authors' roles include, but are not limited to: Engineering, Research & Development, Product Management, and Academia in a variety of market and industry segments relevant to cable products, materials, processes, and applications.

REPRESENTATION OF RECENT AUTHORS

INTERNATIONAL PARTICIPATION

More than 20 countries including: USA, China, Japan, United Kingdom, India, Mexico, Canada, Brazil, Italy, Germany, Switzerland, **and more!**



JOB FUNCTION

Scientist	██████████
Research/Development	████████████████████
Production/Quality	██████
Product Management	██████
General Management	██████
Engineering	██████████████████
Executive	██████
Consulting	██████
Business Development	██████
Student/Other	██████

INDUSTRY SEGMENT

Academic	██████████
Automotive	██████
Power	██████
Aerospace/Defense	██████
Data	██████████
Electronic	██████████████
Specialty Industrial	██████
Telecom	██████████████████

AFFILIATIONS

- | | | | |
|--|--|--|---|
| <ul style="list-style-type: none"> • 3M • AESA Cortaillod • AFL • Arkema • Bahra Cables Company • bda connectivity GmbH • Belden • Berk-Tek • Birla Carbon • Borealis AB • Cable Components Group • Chiba Institute of Technology • Chiral Photonics • Chroma Color Corporation • Cimteq Ltd • CommScope • Condux International • Cord Data • Corning Optical Communications • Covestro • Daikin america, Inc. • De Montfort University • Delta Tecnic • Dow • DSM Functional Materials | <ul style="list-style-type: none"> • Fiberhome Communication Technology Co., LTD • FiberNext • FiberQA • Fujikura Limited • Furukawa Electric • Gaon Cable • Graz University of Technology • Harbin Institute of Technology • Hengtong Optic-Electirc Co.,Ltd • Heraeus Noblelight • HFCL Group • Hitachi Cable America • Hopland MarinInstal • Huawei Technologies Co., Ltd • Hubei University of Technology • Huber Engineered Materials • Indore • Japan Fine Coatings Co., Ltd. • j-fiber GmbH • Jiangsu Hengtong Optic-Electric Co • JSR Corporation • LaserLinc, INC • Leoni • Leviton | <ul style="list-style-type: none"> • Lubrizol Advanced Materials, Inc • M. Holland • Maillefer Extrusion OY • MC Communications • Nabaltec AG • Nanjing Wasin Fujikura Optical Communication LTD • Nippon Telegraph and Telephone Corporation • Nippon Telegraph and Telephone East Corporation • OCC Corporation • OFS Fitel • Oledcomm • OptEM • Osaka Electro-Communication University • Panduit Corporation • Plumettaz • Polycab India Ltd • Prysman Group • SACO AEI Polymers • Senko Advanced Components • State Key Laboratory of Optical Fiber and Cable • Sterlite Technologies Limited | <ul style="list-style-type: none"> • Sumitomo Electric Lightwave • Superior Essex Communications • Taymer International Inc. • Technetics Group • TKH Group • The National Center for Nanoscience and Technology • Trafikverket - Swedish Transport Administration • Twentsche (Nanjing) Fibre Optics • U.S. Air Force • UL Solutions • University of Central Florida • University of North Carolina at Charlotte • US Conec • Virginia Polytechnic Institute and State University • Wandtec Optronics Co., Ltd. • WaveLab Engineering AG • Wuhan Research Institute of Posts and Telecommunications • Yangtze Optical Fibre and Cable Joint Stock (YOFC) • Zhongtian Technology Fibre Optics Co.,Ltd. |
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STUDENT PRESENTATIONS

IWCS encourages engineering students with individual or group research projects to submit an abstract to be considered for a Technical Paper presentation or poster display at the upcoming IWCS Forum. Students are encouraged to take advantage of this opportunity to gain experience discussing their work while networking and discussing professional opportunities with some of the world's leading international companies in cable manufacturing, materials science, telecom, and related industries. Students and professors should contact Rebecca Dippel, IWCS MarCom Manager, at rdippel@iwcs.org for more information.

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TWO UNIQUE OPTIONS TO SHARE YOUR TECHNICAL PAPER AT IWCS 2024

1 PRESENTATION



- 20 minute presentation
- 5 minute question & answer period
- Formal seated audience
- Visual display: Microsoft Powerpoint
- One presenting author per paper
- Comfortable presenting in English
- Final Paper in Proceedings and Archives
- Opportunity to receive a prestigious award

2 POSTER DISPLAY



- Casual one-on-one conversations with people who stop learn about your research
- Poster is on display for two days
- Visual display: Poster with graphics
- One or more authors can stand by poster to answer questions during the 2-hour Poster Session
- Final Paper in Proceedings and Archives
- Opportunity to receive a prestigious award

TECHNICAL PAPER AWARDS



The IWCS Symposium Committee awards the best Technical Paper, Poster, and Outstanding Presentation. Submit a paper for the opportunity to win one of these prestigious awards!

Congratulations to our 2023 Technical Paper Award Recipients!

- **Kitts-Kingsley Award for Best Presentation:** Mr. Michael Dodds, Leviton, "*Channel Performance Degradation from Installation Stresses*"
- **Award for Outstanding Poster Paper:** Ms. Brita Kunze, Delta Tecnic, "*UV Protection and Lightfastness of Outdoor Cables*"
- **Jack Spergel Memorial Award for Outstanding Technical Paper:** *will be announced soon*

HOW TO SUBMIT AN ABSTRACT

Submit an abstract that describes your intent for a Technical Paper. Abstracts are reviewed by a committee of industry experts and authors of accepted abstracts are invited to submit a Technical Paper to be published and presented at the IWCS Forum. *Refer to suggested topics on the following page.*

Abstracts must be in **English** and be submitted as an MS Word® or PDF document. The IWCS abstract template can be downloaded from the IWCS website at iwcs.org/present.

The 300-500 word abstract should include:

- Authors and preliminary Technical Paper title
- Primary conclusion or result
- Background—why work was undertaken
- Pertinent details of significant findings
- One or two illustrations

If you have questions about the submission process, please contact Michelle Melsop, IWCS Senior Operations Manager, at mmelsop@iwcs.org or by phone at +1.571.265.3657.

Important Deadlines

Submit technical paper & poster abstract*	April 5
Invitations to present shared with authors	May 3
Accept/decline invitation to present	May 24
Submit final paper*	September 20
Submit final PowerPoint presentation	October 6
Final poster graphics due	October 6

*Abstracts and final papers must be formatted according to the IWCS Template

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SUGGESTED TOPICS – *Additional topics are welcome!*

MATERIALS & ADDITIVES

- Compound Manufacturing
- Processing / Extrusion
- Cable Component Materials
 - » Fluoropolymers
 - » PVC
 - » Low Smoke / Flame Retardant Halogen Free
 - » Olefins
 - » Thermoplastic Elastomers
 - » Thermoplastic Urethanes
- Connectivity Materials
- Raw Materials / Ingredients

DATA CENTER & EDGE APPLICATIONS

- Hyperscale, Enterprise & Edge Data Centers
- Optical Fiber vs Copper Solutions
- Architecture & Topology (Top of Rack; End of Row; Structured Cabling)
- Artificial Intelligence & Quantum Computing Networks

DESIGN, TESTING, & APPLICATIONS FOR COPPER ETHERNET, PoE & ENERGY CABLES

- Copper Conductors
- Performance Modeling, Measurements & Testing
- Copper Cable Accessories
- Data Communications / PoE
- EMC / Single Pair Ethernet
- Sensor / Signal / Transmission Cable
- Medium / High Voltage Power
- Energy Transition
 - » AC to DC
 - » Demand Challenges and Solutions

NETWORK RELIABILITY & MEASUREMENTS

- Cable Measurement, Reliability and Maintenance

DIGITAL ELECTRICITY / FAULT MANAGED POWER

- Fault Managed Power Delivery
- Digital Electricity / NEC® Class 4
- Case Studies

ADVANCEMENTS IN COPPER & OPTICAL CONNECTIVITY

- Interconnect / Connectors
- Optical Connectivity
- Wire Harnesses
- Assemblies
- Harsh Environments
- Ferrule-less Alternative Optical Connectivity Methods
- High Density Interconnect Developments
- Field Installable / Fusion Splices / Terminations
- Field Identification / Repair / Reconditioning

OPTICAL CABLE / FIBER DESIGN AND CHARACTERIZATION

- Novel Cable Designs
- Multi-Core / Hybrid Cables
- Micro-Cables
- FTTx / FTTH and Installations

OPTICAL CABLE / FIBER MANUFACTURING AND RELIABILITY

- Optical Fiber Manufacturing
- Optical Fiber Cable Manufacturing
- Reliability Measurements / Process Control

HIGH-DENSITY RIBBON & LOOSE TUBE CABLE

- Flexible Ribbon
- High Density Cable

MICRODUCT, AIR-BLOWN & OPTICAL CABLE INSTALLATION & FIBER SPLICING

- Microduct
- Air Blown
- Splicing Technologies
- Tooling & Testing

MULTI-CORE & SPECIALTY FIBER

- Optical Fiber Applications
- Ultra Low-Loss Optical Fibers
- Multimode Fiber
- Next Generation Specialty Fibers

OUTDOOR & SUBMARINE CABLE

- Long Haul / Submarine Networks

SPECIALTY APPLICATIONS

- Renewable Energy Cabling (Offshore/Onshore Wind, Solar)
- Electric / Autonomous Vehicles
- Wireless Signal Transmission
- 5G Cabling / Network Technology
- Oil & Gas Drilling / Mining
- Advanced Robotics / Industrial Automation
- Advanced Healthcare
- Automotive / Aerospace
- SMART Community Concepts (Grids / Buildings / Cities)
- Broadband Infrastructure / Rural Communities

CODES & STANDARDS

- Safety
- Performance
- Environmental Impact / Eco-Labels

CABLE SUSTAINABILITY & RECYCLING

- Collections, Segregation, Logistics
- Processing / Cable Component Separation
- Supply Chain Circularity (Reuse in Cable Compounds & Components)

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Questions?

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