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SESSION 1: EXECUTIVE SESSION

SESSION 1: Executive Session

Chairperson: David B. Kiddoo; IWCS, USA

This session is designed for the general management of the wire and cable producing companies and their suppliers. Important issues Page: facing the industry will be addressed by expert speakers in a provocative session which will be followed by a panel of industry leaders reflecting on the issues.

1 1-1: A Wire and Cable Market Boom Amid Risks: Chenfei Wang, CRU International, London, UK

- 2 1-2: Opportunities for the Optical Cable Market in a Post-Pandemic World: Michael Finch, CRU International, London, UK
- 3 1-3: Global Economic Outlook: Robert Fry, Robert Fry Economics LLC, Greenville, DE USA
 - 1-4: Executive Panel Session: Perspectives on demand / needs for connectivity infrastructure in a post-pandemic world. How does a service provider meet the requirements of broadband deployment, data centers on the edge and users expansion (remote healthcare, schooling, home office, social networking, etc.) in this new paradigm.

PANELIST BIOGRAPHIES:

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- **Ric Johnsen** SVP, Broadband Networks, CommScope, Hickory, North Carolina, USA
- 5 **Boh DuPree** Director, Network Investments, Facebook, Redmond, Washington, USA
- 6 Roland Montagne Principle Analyst Broadband & FTTx, IDATE / DigiWorld Institute, France
- 7 **Trevor Smith** VP of Strategy and Business Development, CommScope, Eden Prairie, Minnesota, USA

PLENARY SESSION AWARDS AND KEYNOTE

Plenary Session Chairpersons:

David B. Kiddoo; IWCS, USA

Dr. Scott H. Wasserman; Chair of the Board, IWCS, Inc. Dow Wire & Cable, Collegeville, PA, USA

Dr. Brian Risch; Chair, IWCS 2021 Symposium Committee; Prysmian Group, Claremont, NC, USA

Plenary Session Awards

During the Plenary Session, the following awards were presented for last year's 2020 Technical Papers and Presentations.

Jack Spergel Memorial Award for Outstanding Technical Paper

Ruben Manikkam

Heraeus Noblelight America, Maryland, USA "Optical Arrangement and Power Consumption for UV LED System Designs in Standard Draw Tower Configuration"

Kitts-Kingsley Award for Best Presentation

Michael Dodds

Berk-Tek LLC, Pennsylvania, USA "Twisted Pair Ethernet Applications at Lengths Greater than100m" Kitts-Kingsley Award for Best Presentation

Brian Risch

Prysmian Group, North America, USA "Structurally and Environmentally Robust Flexible 16 and 24 Fiber Ribbons for High Fiber Density Cables Compatible with Mass Fusion Splicing"

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Plenary Session Keynote

Connectivity Needs for our New Normal World: Network Evolution in the Cable and Connectivity Space

As the world moves to towards our new normal, we are more dependent on connectivity than we have ever been before. Every business is becoming more and more connected, every person is becoming more connected in more ways than they ever thought imaginable. The COVID-19 pandemic has put the entire world through a massive forced experiment around more ways to connect digitally, and much of what we have done out of necessity is likely to stay even as the world moves towards a new normal.

The communications networks of today and tomorrow will be about connecting both people and machines, and providing a user experience that is more responsive and adaptable for the needs of the applications that provide value. This talk will discuss how these changes are affecting our society, and how cable and connectivity must evolve to support the new normal.

Trevor Smith

VP of Strategy and Business Development, CommScope, Eden Prairie, Minnesota, USA

ROUNDTABLE DISCUSSIONS

Advancing Telecom Infrastructure: Material & Cable Innovation for a More Sustainable Future

	SPONSORED BY DOW
	PANELIST BIOGRAPHIES:
10	• Moderator: Scott Wasserman, PhD, Associate R&D Director/Intellectual Capital Mgr. – Dow, Inc.
11	Panel Topic Expert: Jennifer Ronk, Senior Marketing Manager, P&SP Sustainability NA – Dow, Inc.
12	• Panel Topic Expert: Brian K. Davis, RCDD, Director, Global Market Development In-Building Networks – Corning Optical Communications LLC
13	• Panel Topic Expert: Vivian Petre, Global Product Line Manager, Fiber Drop Cable Assemblies – Commscope
14	How to Guard Your Brand: Mitigating Risk of Non-Compliant Product SPONSORED BY UL
	PANELIST BIOGRAPHIES:
15	Moderator: Robert LaRocca, Product Manager – UL
16	Panel Topic Expert: Lisa Deere, Brand Protection Manager – UL
17	• Panel Topic Expert: Michael Rose, Section Chief – IPR Center, Homeland Security Investigations: Global Trade Investigations Division
18	• Panel Topic Expert: Tom Hannigan, Lead Auditor – US Department of Labor, OSHA NRTL
19	Panel Topic Expert: Anthony Tassone, Principal Engineer – UL
20	The Future of Community: How A Connected World Can Drive Innovation and Wellness — What Sustainable Technology Will Contribute To The Circular Economy? SPONSORED BY COVESTRO
	PANELIST BIOGRAPHIES:
21	Moderator: Stacey Siler, Global Marcom and Communications – DSM / Covestro
23	 Panel Topic Expert: Eric Urruti, Global Science & Technology Director and Director of Fiber Optic Materials – DSM / Covestro
23 25	 Panel Topic Expert: Eric Urruti, Global Science & Technology Director and Director of Fiber Optic Materials – DSM / Covestro Panel Topic Expert: Jun Liu, VP Marketing – DSM / Covestro

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2021 IWCS Connectivity: Innovations in Processing, Density & Deployment Session Sponsor

SESSION 2: Connectivity: Innovations in Processing, Density & Deployment Sponsored by: CommScope Chairperson: Ben Waite; Fiber Optic Center, USA

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- 2-2: 100% Precon FTTx Network: M. Scocco, Sterlite Conduspar, São Jose PInhais, Brazil; D. Santos, B. da Silva, and R. Gomes, Telefonica Vivo, Curitiba, Brazil; G. Cenato and M. Garcia, Rosenberger Domex Telecomunicações Ltda., Caçapava, Brazil; A. Dallagnol and L. Freitas, Sterlite Conduspar, São Jose PInhais, Brazil; and K. Tenzing, Sterlite Technologies Limited, Dadra, India
- 42 2-3: Standardization of Multimode Optical Fiber for Automotive Wire Harness in Next Generation Autonomous Vehicles: R. Pimpinella, J. Castro, B. Kose, P. Huang, and B. Lane, Panduit Corp., Tinley Park, IL, USA
- 47 2-4: Heresy Or Breakthrough: Precision Cleaning Fiber Optic Surfaces Without Inspection: E. Forrest, rMS (RaceMarketingServices), Atlanta, GA, USA
- 50 2-5: Prodigy Small Form Factor Universal Fiber Optic Connector for Harsh Environments: Y. Lu, CommScope, Shakopee, MN, USA
- 55 2-6: Novel Multi-Fiber Connector with Increased Usable Fiber Density: M. Hughes, D. Childers, J. Hendrick, J. Higley, D. Kurtz, S. Lutz, and D. Schoellner, US Conec, Hickory, NC, USA
- 62 2-7: Review of Connector End Face Scratch Recognition and Verification Study for Automated Microscopes: M. Gurreri and T. Bolhaar, CommScope, CommScope, PA, USA; J. Webb, TE Connectivity, Middletown, PA, USA; and T. Berdinskikh, Novophotonics Consulting, Toronto, ON, Canada



2021 IWCS Emerging Optical & Cable Technologies Session Sponsor

SESSION 3: Emerging Optical & Cable Technologies Sponsored by: OFS Chairperson: Eric Whitham; OFS, USA

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- 83 3-3: 800 Gbps Transmission Over 8-Core Multimode Multicore Fiber for Short Reach Datacom Interconnects: Y. Sun, R. Lingle, and C. White, OFS Fitel LLC, Norcross, GA, USA; B. Savran, T. Cotter, and M. Wen, OFS Fitel, Avon, CT, USA; and B. Holland, L. Bansal, D. Inniss, J. Earnhardt, B. Zhu, and D. DiGiovanni, OFS, Somerset, NJ, USA
- 88 3-4: 400 Gbps Transmission Over 4-Core Single Mode Multicore Fiber For Datacom Applications: Y. Sun, R. Lingle, A. McCurdy, D. Peckham, T. Liang, D. Braganza, and D. Vaidya, OFS Fitel LLC, Norcross, GA, USA; R. Shubochkin and V. Cusanello, OFS Fitel, Sturbridge, GA, USA



2021 IWCS Special Applications – Copper Session Sponsor

SESSION 4: Special Applications – Copper Sponsored by: Chemours Chairperson: Trent Hayes, CommScope, Inc., USA

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- 99 4-2: Hybrid Cable for Laserway Pon-Lan Solution: T. Hoppen Bianchini, L. Nogueira, M. Nardi, K. dos Anjos, W. Rosa Netto, R. Cruz, S. Joly, and H. Durigan, Furukawa Electric LatAm S.A., Curitiba, Brazil
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SESSION 5: Materials & Process Technology Sponsored by: Dow Chairperson: Mohamed Esseghir; Dow, USA

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2021 IWCS Optical Cable Installation & Network Management Session Sponsor

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- 6-3: Power Supply System Using Optical Fibers for Remote Operated Optical Fiber Switching Node: T. Kawano, T. Fujimoto,
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2021 IWCS Optical Fiber Production and Characterization Session Sponsor

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- 173 7-2: Single-Mode Transmission over OM1 MMF: Offset Launch vs. Fundamental Mode Launch: B. Kose, J. Castro, R. Pimpinella, P. Huang, and B. Lane, Panduit Corp., Tinley Park, IL, USA

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2021 IWCS Optical Fiber Splicing and Installation Session Sponsor

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- 207 9-2: Innovative High Fiber Density Low Fiber Count Cables with Two Piece Armor: T. Towery, E. Stupka, B. Blazer, J. Greenwood, and E. Zabir, Corning Optical Communications, Hickory, NC, USA
- 213 9-3: The Search for Parametric Bounds in Relation to Optical Performance: B. Gomatam and M. Sinha, Sterlite Tech Ltd, Pune, India
- 9-4: Next Generation 6912F Flexible Ribbon Cables with Reduced Diameter: C. Anderson, B. Wells, B. Risch, G. Lin, J. Barker, and R. Troung, Prysmian Group, Lexington, SC, USA
- 9-5: 12F and 24F Microduct Cables with Flexible Ribbon Technology for FTTx Applications: L. Marvin, R. Chappell, R. Lovie, B. Risch, J. Barker, and D. Collado, Prysmian Cables & Systems USA, LLC, Claremont, NC, USA
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- 235 Additional Paper:: Study of Polyethylene Terephthalate Loose Buffering Tubes in Optical Cables: J. Luo, Y. Shen, X. Yang, L. Qi, H. Liu, F. Wu, Yangtze Optical Fiber and Cable Joint Stock Limited Company



2021 IWCS Optical Fiber Cable Processing Session Sponsor

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- 251 **10-3: Flexible Ribbons in 144F & 288F RiCT OSP to Reduce Cable Size and Improve Manufacturability: G. Lin, J. Barker, B.** Wells, and B. Risch, Prysmian Group, Lexington, SC, USA



2021 IWCS Copper Cable Session Sponsor

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2021 IWCS Codes & Standards Session Sponsor

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2021 IWCS Flame Retardant Cable Session Sponsor

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 J. Owens, and G. Pickrell, Virginia Polytechnic Institute and State University, Department of Materials Science and Engineering, Blacksburg, VA, USA; and M. Davis, Luna Innovations, Blacksburg, VA, USA
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- 385 14-8: Glass Optical Fibers for Automotive Ethernet: M. Choudhury, OFS, Sturbridge, MA, USA; M. Shiino, Furukawa Electric Company, Ltd., Shiga, Japan; and J. Earnhardt, OFS Specialty, Avon, CT, USA