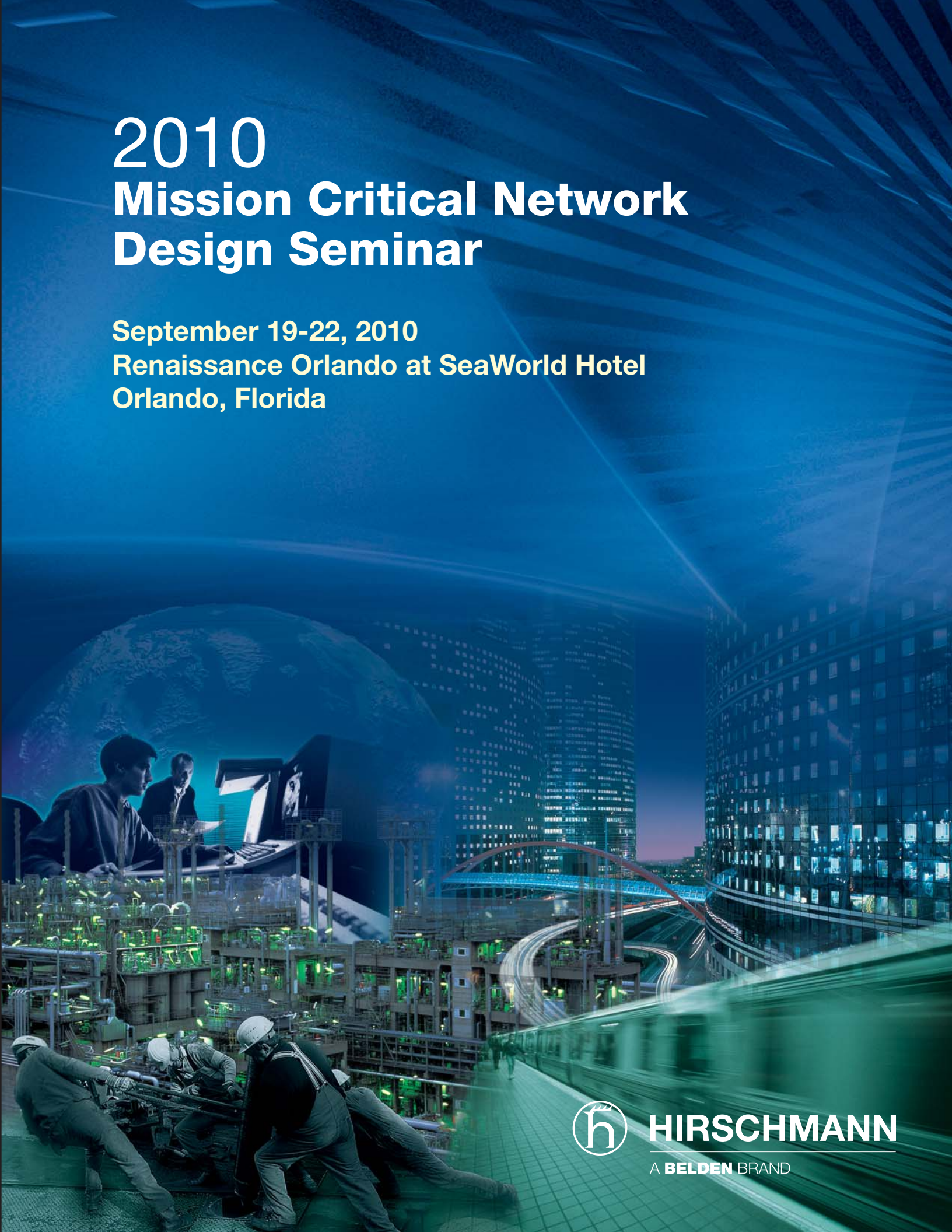
2010
Mission Critical Network Design Seminar

September 19-22, 2010
Renaissance Orlando at SeaWorld Hotel
Orlando, Florida



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2010 Mission Critical Network Design Seminar

Everything you wanted to learn about Industrial Networking Design

Belden® presents the Hirschmann™ 2010 Mission Critical Network Design Seminar taking place September 19-22, 2010 at the Renaissance Orlando at SeaWorld Hotel, Orlando Florida.

About the Design Seminar

The seminar is divided into 12 breakout sessions. Attendees can customize their schedule by selecting from over 20 different technical sessions and 6 hands-on labs. The sessions are organized to insure everyone has an opportunity to take full advantage of the Seminar, regardless of their level of technical knowledge. The 6 hands-on labs are intended to reinforce the topics covered in many of the classes while providing the opportunity to learn by doing.

Presenters with a combined experience of over 150 years will speak on technical topics ranging from Isolating Network Traffic to Implementing Redundancy and Network Security. Each presenter has the experience and technical background to address current technology trends to designing state-of-the-art industrial networks for Mission Critical applications for a variety of industries, including: Petro-Chemical Plants, Wind Farms, Automotive Plants as well as Power Generation and Substation facilities.

Who Should Attend?

If you are a Network Design Engineer with an Original Equipment Manufacturer (OEM) or with an Engineering Procurement and Construction (EPC) firm, take the opportunity to learn more on how to effectively reduce costs, installation time, and implement a highly resilient network design.

If you are a system integrator or an authorized Hirschmann distributor you won't want to pass this opportunity up. Prepare to win that next big project and separate yourself from the competition by educating yourself on how best to specify and sell the Hirschmann brand.

In short, this seminar is ideal for anyone involved with the design, implementation and maintenance of mission critical ethernet networks.

Note: To authorized Hirschmann System Integrators or Distributors, attendance at the seminar fulfills your technical training requirement.

Cost

Seminars with this level of expertise can run as much as $5,000.

We have managed to bring this entire seminar to you, including all meals and events, classes, hands-on labs, all technical presentations in printed and electronic format, as well as several special events for the low price of $900. Payment can be made either by credit card, purchase order or company check.

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FLUKE networks

Sponsored in part by Fluke Networks

Registration

Phone: 800-889-1461
Fax: 972-248-9533
Email: rshepherd@industrialnetworking.com
Cost: $900

NOTE: Classroom sizes are limited, so seating is being offered on a first-come, first-served basis.

Hotel Information

We have blocked rooms on-site at the Renaissance Orlando at SeaWorld Hotel with a discounted rate of $119.00 per night.

To take advantage of this rate, book your rooms through the property's on-line registration page **Renaissance Orlando at SeaWorld** or call **1-800-HOTELS-1**. When calling, make sure you state that you want the Belden discounted rate.

Event Overview

Attendees should plan to arrive on the afternoon or evening of Sunday, September 19th. The registration desk will be open from 4–8 p.m. for packet pick-up. Join us for a welcome reception from 5-8. Breakfast will be available on Monday, Tuesday and Wednesday mornings beginning at 7 a.m. with the seminar starting promptly at 8 am. There will be general sessions to begin each day, as well as another general session during lunch.

There will be a group dinner and evening event on both Monday and Tuesday nights. The events will give attendees an opportunity to relax and "network" (in the social sense) with other attendees as well as the staff and management teams from Belden, Hirschmann and Lumberg. The seminar will conclude at 5 p.m. on Wednesday, September 22.

Technical Sessions

- Introduction to Ethernet Networking
- Network Design I: Fundamentals & Best Practices
- Network Design II: Implementing Redundancy
- Network Design III: Managing Multicast Traffic
- Network Design IV: Isolating Network Traffic
- Network Design V: Wireless Best Practices & Applications
- Network Security, The Hirschmann Way
- Network Management
- Physical Layer Cabling & Testing: How to test and troubleshoot a reliable ethernet network
- Switch Selection: Choosing the right product for your application
- Cool things your switch can do that you don't know about
- Migrating legacy devices to Ethernet
- Industrial Connectivity: Passive Product Technology
- Industrial Connectivity: Active Products
- Ethernet Cabling: Your Questions Answered
- Fiber Optic Cabling
- Industrial Automation Cabling (Non-Ethernet Applications)
- HSI Forum
- Distributor Forum
- Intro to HSI - Hirschmann System Integrator Program

Hands-On Labs

- Managed switches "Out of the box"
- Network Management
- Network Redundancy
- Layer 3 / Routing
- Network Security
- Wireless

Contact Information

Phone: 800-889-1461
Email: rshepherd@industrialnetworking.com

Building Industry Consulting Services International - Bicsi

Bicsi offers Continuing Education Credits (CECs). The Technical Sessions indicated are currently under review for approval. For more information about Bicsi **click here**!

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Schedule at a Glance

Day 1	Sunday, September 19, 2010			
4:00pm - 8:00pm	Registration/Information Desk Open			
5:00pm - 8:00pm	Welcome Reception - Cocktails and Hors D'oeuvres (Outside Terrace)			
Day 2	**Monday, September 20, 2010**			
7:00am to 5:00pm	Registration/Information Desk Open			
7:00am to 8:00am	**Breakfast** (Atrium)			
8:00am to 9:00am	**Welcome - Keynote Address - General Session** (Crystal Ballroom D & E)			
Room GS (Crystal Ballroom D & E)	**Room 1** (Wedgwood)	**Room 2** (Coral Room A)	**Room 3** (Coral Room B)	**Room 4** (Coral Room C) **(Hands-On Lab)**
	Session 1			
9:15am to 10:45am	Introduction to Ethernet Networking	Switch Selection: Choosing the right product for your application	Network Management	Managed Switches "Out of the Box"
	Session 2			
11:00am to 12:30pm	Network Design I: Fundamentals & Best Practices	Introduction to Ethernet Networking	Network Design V: Wireless Best Practices	Network Management
12:30am to 1:30pm	**Lunch** (Crystal Ballroom D & E)			
	Session 3			
1:45pm to 3:15pm	Network Design III: Managing Multicast Traffic	Fiber Optic Cabling	Network Design II: Implementing Redundancy	Wireless
	Session 4			
3:30pm - 5:00pm	Industrial Connectivity: Passive Product Technology	Network Design III: Managing Multicast Traffic	Network Design I: Fundamentals & Best Practices	Network Redundancy
5:00pm - 7:00pm	**Trade Show** (Atrium Area) - Appetizers & Open Bar			
7:00pm - 8:00pm	**Dinner** (Crystal Ballroom D & E)			
8:00pm - 11:00pm	**Entertainment: Casino Night** (Crystal Ballroom C)			

Day 3	Tuesday, September 21, 2010			
7:00am to 5:00pm	Registration/Information Desk Open			
7:00am to 8:00am	**Breakfast** (Atrium)			
8:00am to 8:30am	**General Session** (Crystal Ballroom D & E)			
Room GS (Crystal Ballroom D & E)	**Room 1** (Wedgwood)	**Room 2** (Coral Room A)	**Room 3** (Coral Room B)	**Room 4** (Coral Room C) **(Hands-On Lab)**
	Session 5			
8:30am to 10:00am	Network Design IV: Network Isolation	Cool things your switch can do that you don't know about	Fiber Optic Cabling	Managed Switches "Out of the Box"
	Session 6			
10:30am to 12:00pm	Migrating Legacy Devices to Ethernet	Industrial Connectivity: Active Products	Network Design IV: Network Isolation	Layer 3 / Routing
12:00am to 1:15pm	**Lunch** (Crystal Ballroom D & E)			
	Session 7			
1:45pm to 3:15pm	Network Design II: Implementing Redundancy	Fluke: Troubleshooting Physical Layer Cabling and Testing	Migrating Legacy Devices to Ethernet	Layer 3 / Routing
	Session 8			
3:30pm - 5:00pm	Industrial Automation Cabling (Non-Ethernet Applications)	Network Security, The Hirschmann Way	Ethernet Cabling: Your Questions Answered	Network Redundancy
6:15pm - 11:00pm	**Dinner/Offsite Event**			

Schedule at a Glance and Session Descriptions

Day 4	Wednesday, September 22, 2010			
7:00am to12:00pm	Registration/Information Desk Open			
7:00am to 8:00am	**Breakfast** (Atrium)			
8:00am to 8:30am	**General Session** (Crystal Ballroom D & E)			
Room GS (Crystal Ballroom D & E)	**Room 1** (Wedgwood)	**Room 2** (Coral Room A)	**Room 3** (Coral Room B)	**Room 4** (Coral Room C) **(Hands-On Lab)**
	Session 9			
8:30am to 10:00am	Fluke: Troubleshooting Physical Layer Cabling and Testing	Industrial Automation Cabling (Non-Ethernet Applications)	Hirschmann System Integrator (HSI) Forum	Network Security
	Session 10			
10:15am to 11:45pm	Ethernet Cabling: Your Questions Answered	Cool things your switch can do that you don't know about	Distributor Forum	Network Management
12:00am to 1:15pm	**Lunch** (Crystal Ballroom D & E)			
	Session 11			
1:30pm to 3:00pm	Network Design V: Wireless Best Practices	Fluke: Troubleshooting Physical Layer Cabling and Testing	Network Security, The Hirschmann Way	Network Security
	Session 12			
3:30pm - 5:00pm	Introduction to the Hirschmann System Integrator (HSI) Program	Switch Selection: Choosing the right product for your application	Network Management	Wireless

Session ID	Session Title	Session Description	Frequency
TP01	**Introduction to Ethernet Networking**	Ethernet 101: A foundation class that will introduce you to the history and evolution of ethernet, the OSI model, industry standards and common terms.	2
TP02	**Network Design I: Fundamentals & Best Practices**	This session will introduce you to a systematic approach to designing a network from the ground up. What questions need to be asked and what factors need to be considered to insure that you deploy a robust and future proof network.	2
TP03	**Network Design II: Implementing Redundancy**	We'll begin with a discussion of redundancy protocols: open standards vs. proprietary methods, and the pros and cons of each. Then we will examine the various ways that each method can be implemented, so that you can make the best selection for your applications.	2
TP04	**Network Design III: Managing Multicast Traffic**	EtherNet/IP is a very popular industrial protocol that takes advantage of multicasting. This session will provide you with an understanding of how multicasting works, so that you can manage it properly on your network and maximize the performance of each end device.	2
TP05	**Network Design IV: Isolating Network Traffic**	A network's performance can be dramatically improved by isolating traffic. This session will look at the reasons why you would want to isolate network segments, and various ways to deliver this isolation including the use of VLANs, routers / Layer 3 switches and firewalls.	2
TP06	**Network Design V: Wireless Best Practices & Applications**	WLAN technology is rapidly gaining acceptance in mission critical networks. This session will help you understand the 802.11 "alphabet soup". From there we will look at several real world applications to see how those technologies are implemented successfully.	2
TP07	**Network Security, The Hirschmann Way**	Network security is an important, and very broad topic. This session will introduce you network security, and look at various approaches to implementing security on your network and current trends in the market. Security features inside Hirschmann switches will be discussed, as well as dedicated security products.	2

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Session Descriptions

Session ID	Session Title	Session Description	Frequency
TP08	Network Management	SNMP, OPC, Web Browser, Hyperterminal…are all methods to interface with your network devices, and each has its place, but what combination of these is right for your application? As your network grows and becomes increasingly important, a solid network management strategy is a must. This session will provide you with an understanding of network management so that you can make informed decisions on your own networks.	2
TP09	Physical Layer Cabling & Testing: How to test and troubleshoot a reliable ether-net network	Reliable ethernet network performance is dependent upon a robust physical layer. Learn the best practices from Fluke Networks for installing, verifying and troubleshooting the ethernet physical layer for copper, fiber and wireless networks.	3
TP10	Switch Selection: Choosing the right product for your application	Picking out an ethernet switch is simple, right? Just flip open the Hirschmann catalog and pick one! With literally thousands of part numbers, this is not such an easy task. This session will begin with the basics, what is required for your application: Managed or Unmanaged, din rail, 19" rack or surface mount, environmental specs, and so on. From there we'll look at each Hirschmann product family and help you to understand the part numbering system. We'll also show you several part number configuration tools to simplify the entire process.	2
TP11	Cool things your switch can do that you don't know about	There are many features inside a Hirschmann switch, but most people don't know they are there. However, many of these features offer valuable, time saving benefits. We'll introduce you a number of these features, and show you how to take advantage of them.	2
TP12	Migrating legacy devices to Ethernet	Upgrading a legacy system to ethernet is often done in phases, and upgrading equipment just for ethernet connectivity is not always practical. This session will introduce the new family of Hirschmann serial to ethernet gateways, and show you how they can be implemented to provide ethernet connectivity to non-ethernet devices.	2
TP13	Industrial Connectivity: Passive Product Technology	This session will review the basic building blocks of a fieldbus network - cordsets and distribution boxes. We will look at the physical characteristics of these products, and show you how they can be used as an efficient way to increase your network capacity. This session is focused on applications, and you will gain a better understanding of this technology so that you can make informed decisions on your networks.	1
TP14	Industrial Connectivity: Active Products	A discussion of various fieldbus networks (As-I, Interbus, Can, Devicenet and Profibus) and ways that these networks can be implemented in a more cost effective manner using products from Lumberg Automation. We will also examine added benefits that come with this technology - primarily access to more information and diagnostics.	1
TP15	Ethernet Cabling: Your Questions Answered	Over 35% of network downtime is a direct result of cabling problems. This session will help you understand cable standards, applications and options. Cat 5e or 6? Shielded or Unshielded? Conduit or not? Belden will present the answers to these and many more tough application challenges.	2
TP16	Fiber Optic Cabling	A presentation covering all aspects of fiber optic media: single-mode versus multimode fiber, loose tube and tight buffer cables as well as types of fiber cables for different applications. Fiber connectivity reviewed including LC, SC and ST connec-tors and more.	2
TP17	Industrial Automation Cabling (Non-Ethernet Applications)	The various industrial automation protocols each have unique cable requirements. This session details the varied cabling requirements for DeviceNet(R), ControlNet(R), Profibus(R), Foundation Fieldbus(TM), etc. The physical and electrical attributes of these automation cables will be discussed.	2
TP18	HSI Forum	This session is limited to authorized Hirschmann System Integrators only. This is designed to be an information exchange to provide an update on the HSI program, answer questions and gather feedback to make the program even better.	1
TP19	Distributor Forum	This session is limited to authorized Hirschmann distributors only. This is designed to be an information exchange to provide an update on Hirschmann's distributor program, answer questions and gather feedback for future enhancements.	1
TP20	Introduction to HSI - Hirschmann System Integrator Program	For integrators interested in learning more about the Hirschmann System Integrator program, this session will provide details, requirements and benefits.	1
LB01	Managed switches "Out of the Box"	Literally, out of the box. Attendees will power up a switch and learn how to set parameters and commission the switch for their application.	2
LB02	Network Management	Learn how easy it is to implement a network management system, and also see how powerful a tool this can be.	2
LB03	Network Redundancy	Learn how to implement the 2 most common types of network redundancy - HiPer Ring and Rapid Spanning Tree.	2
LB04	Layer 3 / Routing	Students will implement both static and dynamic routing on their lab equipment and see firsthand the benefits of each method. If you are new to layer 3, this is a great opportunity to learn about it.	2
LB05	Network Security	Students will have the opportunity to implement network security with the Eagle family of products, as well as learn about security features inside every Hirschmann managed switch.	2
LB06	Wireless	It's been said that the best way to learn wireless is to do wireless…here's your chance to do just that!	2

Registration Form

1. Please complete this registration form and fax it to 972-248-9533. For questions: Contact Reid Shepherd, Phone: 800-889-1461 or E-mail: rshepherd@industrialnetworking.com.

2. Please provide us with your contact information:

Company Name: _____

First Name: _____ **Last Name:** _____

Title: _____

Phone: _____ **E-mail Address:** _____

Street Address: _____

City: _____ **State:** _____ **ZIP:** _____

3. Please indicate [X] your class preference below. Only choose one class per session.

Session	**Room 1** (Wedgwood)	**Room 2** (Coral Room A)	**Room 3** (Coral Room B)	**Room 4** (Coral Room C) **(Hands-On Lab)**
Session 1	☐ Introduction to Ethernet Networking	☐ Switch Selection: Choosing the right product for your application	☐ Network Management	☐ Managed Switches
Session 2	☐ Network Design I: Fundamentals & Best Practices	☐ Introduction to Ethernet Networking	☐ Network Design V: Wireless Best Practices	☐ Network Management
Session 3	☐ Network Design III: Managing Multicast Traffic	☐ Fiber Optic Cabling	☐ Network Design II: Implementing Redundancy	☐ Wireless
Session 4	☐ Industrial Connectivity: Passive Product Technology	☐ Network Design III: Managing Multicast Traffic	☐ Network Design I: Fundamentals & Best Practices	☐ Network Redundancy
Session 5	☐ Network Design IV: Network Isolation	☐ Cool things your switch can do that you don't know about	☐ Fiber Optic Cabling	☐ Managed Switches
Session 6	☐ Migrating Legacy Devices to Ethernet	☐ Industrial Connectivity: Active Products	☐ Network Design IV: Network Isolation	☐ Layer 3 / Routing
Session 7	☐ Network Design II: Implementing Redundancy	☐ Fluke: Troubleshooting Physical Layer Cabling and Testing	☐ Migrating Legacy Devices to Ethernet	☐ Layer 3 / Routing
Session 8	☐ Industrial Automation Cabling (Non-Ethernet Applications)	☐ Network Security "The Hirschmann Way"	☐ Ethernet Cabling: Your Questions Answered	☐ Network Redundancy
Session 9	☐ Fluke: Troubleshooting Physical Layer Cabling and Testing	☐ Industrial Automation Cabling (Non-Ethernet Applications)	☐ Hirschmann System Integrator (HIS) Forum	☐ Network Security
Session 10	☐ Ethernet Cabling: Your Questions Answered	☐ Cool things your switch can do that you don't know about	☐ Distributor Forum	☐ Network Management
Session 11	☐ Network Design V: Wireless Best Practices	☐ Fluke: Troubleshooting Physical Layer Cabling and Testing	☐ Network Security "The Hirschmann Way"	☐ Network Security
Session 12	☐ Introduction to the Hirschmann System Integrator (HIS) Program	☐ Switch Selection: Choosing the right product for your application	☐ Network Management	☐ Wireless

4. Method of Payment. Please indicate [X] your method of payment.

☐ **Purchase Order** Please attach Purchase Order to your registration form ☐ **Check**

☐ **Credit Card** We will contact you for your credit card billing information.

5. Please indicate your desired shirt (golf) size. Male: ☐ Female: ☐

SM ☐ M ☐ LG ☐ XL ☐ XXL ☐ Other _____ (specify)

NOTE: Classroom sizes are limited, so seating is being offered on a first-come, first served basis.

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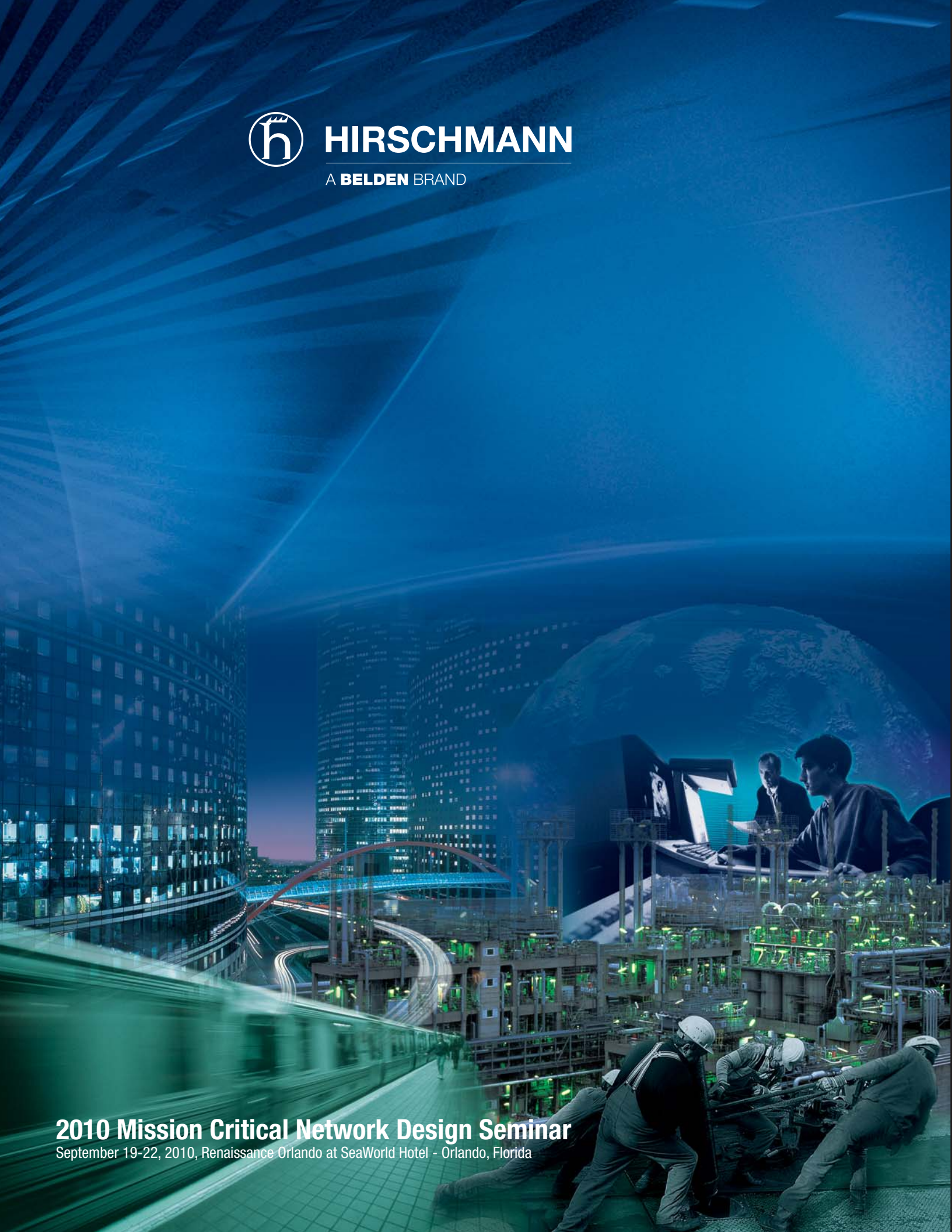

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