Advanced Fiber Optics
Testing & Troubleshooting
February, 13th – 16th, 2012
Sheraton Inn Hotel Bandung

Course Description
This Advanced course is designed to give Technicians a more in-depth procedure of testing and troubleshooting long line and fiber to the home systems.

Completion of this intense course prepares the Tech to understand all aspects of fiber optics, focusing on equipment used to test and troubleshoot fiber systems.

Students Will Learn
- PON and ACTIVE Network Designs
- How TDM and WDM is used in FTTH Applications
- In-depth use of an OTDR for Testing and Troubleshooting
- Understanding Probable Faults in a Fiber System
  - Attenuation, Return Loss, Back
  - Reflection, Refraction
- Active/PON(FTTx) Qualification and Troubleshooting
- And more

Target Audience
Technicians, installers, splicers, contractors, union craftsmen, facilities managers, telecom managers, electricians, and anyone involved in repairing, installing, maintaining, designing, evaluating, or provisioning ACTIVE and PASSIVE FTTH systems.

Prerequisites
A basic understanding of telecommunications and basic fiber optic splicing, termination and testing is required prior to taking this course.

Course Outline
Students must have the prerequisite (BTS Hands-On Fiber ISP/OSP Combo course) or equivalent knowledge of Basic Fiber Optics, splicing, termination and testing. This familiarization is expected and required prior to taking this course.

Advanced Fiber Optic Systems
- PON network design features
- Active network design features
- WDM technology and how its used in FTTH

Advanced Test Accepting and Troubleshooting Fiber Systems
- Understanding attenuation
- Causes of attenuation
- Testing attenuation at different wavelengths
- Understanding back reflection
- Understanding return loss
- APC (Angled Physical contact) connector versus UPC connectors back reflection
- Optical dispersion characteristics and pulse spreading issues
- Power testing levels for FTTH

Advanced Testing & Meters Used in Fiber Systems
- OTDR use
- Setup of the OTDR
- Identifying OTDR traces
- 2 point and 4 point OTDR test
- Testing at different wavelengths
- Measure fiber length, loss and back reflection
- Measure to events and how to add landmark events
- Setup of the Power meter and light source
- Interpreting PM and Light source results
- Using the visible light sources

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Active/PON(FTTx) Qualification and Troubleshooting

- Testing Methods for PON/Active networks
- PON wavelength and (I of R) refractive index OTDR setup
- OTDR testing at different wavelengths for ACTIVE systems
- OTDR testing at different wavelengths for PON systems
- OTDR testing through splitters for PON systems
- Loss budget for PON and ACTIVE systems
- Testing for adequate power levels for FTTH systems

ABOUT COURSE LEADER:

DR. Ir. Iskandar, MT., He is currently a lecturer at the School of Electrical Engineering and Informatics (STEI), Department of Electrical Engineering, Laboratory Radio and Gelombang Micro Telecommunications, Institute Technology Bandung (ITB).


INVESTMENT FEE PER DELEGATE:

IDR. 8,250,000, net

Includes: training materials, bag, stationerues, 2x coffee breaks, luncheon, and gimmick

Excludes: board and lodging, and all statutory taxes.

Payment could be by cash, cheque, or transferred to:
Bank Mandiri, KK Gatot Subroto Bandung

Account No. 131 000 701674 6
Cc. PT. Surya Daya Mandiri

How to register?
Please, contact Lina at PT. Surya Daya Mandiri,
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