Comprehensive Seminars and hands-on Training

You'll get up-to-date, first-hand & neutral, **vendor independent** knowledge, experience, Do's and Don't's and guidance from the editors of standards ... the fastest start in application and implementation of traditional and advanced information and communication systems to reach **sustainable interoperability of your assets**.

**Communication for RTUs**
- IEC 60870-5-101 and -104
- IEC 60870-5-103
- IEC 61850, IEC 61400-25

**Communication for Protection**
- Basic Knowledge of IEC 61850
- Advanced Knowledge of IEC 61850
- IEC 61850 for substation automation
- System design & engineering (SCL)
- IEC 61850 outside substations

**Control center information and communication**
- IEC 61970 CIM
- IEC 61968

**Inter-control Center Communication (IEC 60870-6-TASE.2; ICCP)**
- Basics
- Services and protocol
- Examples

**Security**
- IEC 62351, NERC CIP, IEEE 1686, ... utility requirements

**MMS (Manufacturing Message Specification, ISO 9506)**
- Basics
- Services and protocol
- ASN.1 and BER

**Fieldbus**
- IEC 61158, EN 50170, Profibus DP FA FMS ..., ProfiNet, CAN in Automation, ...

**IEC 61850**
- Basic Knowledge of IEC 61850
- Advanced Knowledge of IEC 61850
- System design & engineering (SCL)
- IEC 61850 for substations automation
- System design & engineering (SCL)
- System migration aspects
- Products and projects
- Conformance and interoperability
- Hands-on training with IEDs and Tools

**Public Seminars and Training on IEC 61850:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.-28. April 2010</td>
<td>Buenos Aires (Argentina),</td>
</tr>
<tr>
<td>28.-30. April 2010</td>
<td>São Paulo (Brazil),</td>
</tr>
<tr>
<td>05.-07. May 2010</td>
<td>Frankfurt (Germany),</td>
</tr>
<tr>
<td>18.-20. August 2010</td>
<td>Paris (France),</td>
</tr>
<tr>
<td>22.-24. September 2010</td>
<td>Frankfurt (Germany),</td>
</tr>
<tr>
<td>19.-20. October 2010</td>
<td>Dallas (TX, USA),</td>
</tr>
<tr>
<td>02.-05. November 2010</td>
<td>Stockholm (Sweden),</td>
</tr>
</tbody>
</table>

most asked help is for: inhouse courses and hands-on training

Details and Registration: [http://www.nettedautomation.com/seminars/uca/sem.html](http://www.nettedautomation.com/seminars/uca/sem.html)

Other subjects, locations and dates for public and in-house training courses need to be negotiated according to your requirements. Please contact us.

Karlheinz Schwarz, NettedAutomation GmbH, Im Eichbaeumle 108
76139 Karlsruhe/Germany  Phone +49-721-684844, Fax  +49-721-679387
karlheinz.schwarz@nettedautomation.com  [http://iec61850-news.blogspot.com](http://iec61850-news.blogspot.com)  [www.nettedautomation.com](http://www.nettedautomation.com)

2010-07-10