

**UPCOMING EVENTS**  
**HAPUA WORKING GROUP 5 – HUMAN RESOURCES**

<b>Program</b>	<b>Date</b>	<b>Venue</b>	<b>Host Utility</b>	<b>Participants</b>	<b>Contents</b>
Middle Managers Program - Benchmarking Visit	6-10 March 2017	Sarawak Malaysia	Sarawak Energy Berhad Malaysia	19 delegates from EVN	<ul style="list-style-type: none"> <li>• Automation</li> <li>• Loss Reduction</li> <li>• Grid Expansion</li> <li>• Coal</li> <li>• Power Plant Maintenance</li> <li>• Safety Management</li> </ul>
Power System Operations	20-23 March 2017	Manila Philippines	NGCP Philippines	EVN	<ul style="list-style-type: none"> <li>• Overview of System Operations</li> <li>• Generation Dispatching (Dispatch Implementation, Outage Scheduling, Maintenance Scheduling)</li> <li>• Standard Operating Procedures during Normal and Emergency Situation</li> <li>• Blackout Restoration Procedures</li> <li>• Switching Procedure during Line Maintenance</li> <li>• Load Flow Analysis</li> <li>• Special Protection Schemes</li> <li>• Auto-Load Dropping Concepts</li> <li>• Contingency Analysis</li> </ul>
Transmission Unmanned Substation	27-31 March 2017	TNB Malaysia	TNB Malaysia	EVN	<ul style="list-style-type: none"> <li>• Overview of Transmission Grid Operation Philosophy</li> <li>• Control Centre SCADA/Energy Management System (EMS)</li> <li>• Transmission Substation Operation and Design</li> <li>• Transmission Substation Operation and Design (continue)</li> <li>• Advance Technology – Online Monitoring</li> </ul>

					<p>System</p> <ul style="list-style-type: none"> <li>• Advance Technology – Digital Substation &amp; Substation Interrogation and Monitoring System</li> <li>• Advance Technology – Active Network Management and Grid Automation</li> <li>• Advance Technology – Active Network Management and Grid Automation (continue)</li> <li>• Site visit to Conventional Transmission Substation or Network Control Centre (Depending on <a href="#">approval</a>)</li> <li>• <a href="#">Site visit to Digital Transmission Substation</a></li> </ul>
Philippines Electricity Market Deployment and Operation Experience	19-20 April 2017	Manila Philippines	NGCP Philippines	EVN	The module is a two-day course which introduces the participant to the concepts and principles of the Philippine Wholesale Electricity Spot Market (WESM). This is composed of modules on the Introduction to WESM, Scheduling and Pricing, Trading Operations, Billing and Settlements, International Comparison, Market Results, and Market Developments
HAPUA WG5 Supervisory Control and Data Acquisition for National Control Centre	26-27 April 2017	Manila, Philippines	NGCP Philippines	EDL & EDL Gen	<ul style="list-style-type: none"> <li>· Open3000 SCADA/EMS</li> <li>· Software Platform <ul style="list-style-type: none"> <li>o Application Layer</li> <li>o Common Service Layer</li> <li>o Data Layer</li> <li>o Operating System Layer</li> <li>o Hardware Layer</li> </ul> </li> <li>· SCADA Software <ul style="list-style-type: none"> <li>o Data Processing</li> <li>o Supervisory Control</li> <li>o Graphical Interface</li> <li>o Full Graphics Functionality</li> </ul> </li> </ul>

					<ul style="list-style-type: none"><li>o Alarm/Event Handling</li><li>o Sequence of Events Processing</li><li>o Load Shed Restore</li><li>o Disturbance Data Recording and Playback</li><li>o Equipment Outage Scheduler</li><li>o Information Storage and Retrieval</li><li>o ICCP Application</li><li>o Web Application Processing</li><li>o SMS Application Processing<ul style="list-style-type: none"><li>· EMS Software</li></ul></li><li>o Load Forecast</li><li>o Automatic Generation Control</li><li>o Network Analysis</li><li>o Dispatchers' Training Simulator<ul style="list-style-type: none"><li>· Application and System Development</li></ul></li><li>o Source Code Development</li><li>o User Interface Development</li><li>o Network Analysis, Communication Diagnostic, Failure Recovery</li><li>o EMS Resource Monitoring</li><li>o On-Line Help<ul style="list-style-type: none"><li>· Hardware Configuration</li><li>· Control Centers</li></ul></li></ul>
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