From the Amazon to Africa - Bringing the World into the Classroom

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As a result of recent trips to the Amazon in Brazil, South America and to the country of Ghana, in Africa, Jose Daconti, a Senior Staff Engineer with Siemens PTI Network Consulting in Schenectady, New York, was able to infuse real-world examples of challenges related to overhead transmission line design, construction, inspection and route selection activities back to the classroom as part of a course he recently provided through Siemens Power Academy Education and Training Programs.

Siemens Power Academy offers more than 60 courses in North America as part of our 2012 educational offerings to industry professionals in T&D, planning, operations, engineering and non-technical professional roles supporting the energy industry, including those involved in Smart Grid activities.

As lead instructor for Overhead Transmission Line Design and other courses involving electromagnetic and environmental issues of transmission line design, Mr. Daconti was able to share examples and provide students with a greater perspective and appreciation for the challenges of large grid projects in terms of schedules, costs and the need for solid planning.

Figure 1 – Mr. Daconti Leads a 500 kV Line Conductor Inspection in the Amazon

The Tucurui-Macapa-Manaus Transmission Line project in the Brazilian Amazon is planned to connect cities along the Amazon River within the northern Brazilian region and the interconnected power system serving the rest of the country. The project is considered challenging from an environmental perspective.
Hired to validate and inspect parts of the project, Mr. Daconti’s experience as an independent consultant allowed him to bring back examples of these challenges and demonstrate the importance of line siting, material and supplier selection. He advises that “Students need to see how these important decisions can impact the project’s success and ultimately impact line capacity, power losses and power system reliability.”

As part of his 400-kilometer journey across the country of Ghana, Mr. Daconti consulted with engineers on the Eastern Transmission line spanning from Tema to Yendi which is currently being planned as part of a larger transmission project to close a full circuit around Lake Volta, the largest reservoir by surface (3,275 square miles) in the world. Here too, he was able to translate these recent experiences on new transmission line planning and construction with students that attended his course making the technical theory applicable, interesting and relevant.

Providing real-world examples and relating technical content to field applications is one of the best ways to transfer knowledge. At Siemens Power Academy our content is highly applicable, and is made memorable and interesting by the instructors who develop and deliver our courses. Focusing on developing and supporting the instructional talent from our Network Consulting teams and continually growing and enhancing quality programming has set us apart from other educational providers. Our years of experience and depth and breadth of course offerings and certifications help our clients on-board new employees, provide development pathways for key resources, and provide the foundation to improve retention and create mechanisms for knowledge transfer while growing their businesses.

What students are saying:

**PTEC 500 - Overhead Line Design Class**
April 2 – 4, 2012, Schenectady, NY

“Jose Daconti (instructor) did a great job and is very knowledgeable and possesses a high level of technical expertise in transmission line engineering” - **Michael Smith, PE, Lauren Engineers Contractors**

“This class exceeded my expectations because of how Jose kept class involved and provided his personal experiences to supplement material” - **Jason L. Frasier, NY ISO**