As Luis Vilcahuamán, Director – Biomedical Engineering Masters program at Pontificia Universidad Católica del Peru (PUCP) wrote in the Clinical Engineering Handbook (J. Dyro, editor), activities related to clinical engineering, namely medical equipment maintenance and biomedical technology education, date back to the 1980’s. A new era began in Peru when Luis and Health Economist Rossana Rivas of PUCP formed CENGETS Health Technopole to develop clinical engineering and health technology management in Peru. PAHO-sponsored Advanced Clinical Engineering Workshops were held in Lima in 2002 and 2007. Through the work of ACCE members Mario Castaneda, Tom Judd, Frank Painter, Antonio Hernandez, Ismael Cordero, and Tobey Clark, follow-up activities and visits added to the development. CENGETS was awarded the ACCE/ORBIS 2010 International Award.

Through the sponsorship of ORBIS International, Ismael Cordero and Tobey Clark travelled to Lima November 15-19 to meet with the CENGETS team who has started a clinical engineering program at the National Institute of Maternal and Perinatal Care (INMP). About 50 babies are born each day in this public hospital which has a large NICU to handle a variety of neonatal issues. With oversight by CENGETS leaders, engineers Edwin Mezzarina, Dustin Paz and Jaime Luis are providing services focusing on equipment and vendor management for 800 items, purchase consultation, recall resolution, and technical support to clinical staff. Dustin, Jaime and four other PUCP engineers completed a five month clinical engineering internship at the Technical Services Partnership (TSP), a clinical engineering program at the University of Vermont.

Meetings were held with Dr. Julio Portella, executive director, hospital clinicians and staff, and the CENGETS team to determine the progress of the program, successes and challenges. A hospital tour revealed a high level of technology in the NICU, but with challenges such as incubators from eight different manufacturers from seven different countries. The successes were shown by the high value that Dr. Portella and other hospital staff have for CENGETS clinical engineering and a dramatic improvement in the percentage of equipment available for patient care – from 45% before CENGETS to 70% after. Challenges include: CENGETS’s lack of capital equipment – biomedical safety and test devices, computers, and other assets, many vendor contracts, the lack of a true CMMS, limited informational resources, and current hospital and national policies.

One challenge was addressed with the donation of a CMMS, HEMS, by EQ2, Inc. of Burlington, VT. During the visit, software was loaded on a dedicated server at PUCP and set up to allow use by CENGETS staff in Peruvian hospitals. Jim Smith, EQ2 President, provided a three year plan for implementation and comprehensive remote support as part of the donation.

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EMPLOYMENT OPPORTUNITY

The ORBIS Flying Eye Hospital (FEH) is a unique mobile teaching and operating facility on board a DC-10 jet aircraft that travels to developing countries worldwide to share the gift of sight. Our Flying Eye Hospital staff travel up to 45 weeks per year to countries such as Peru, Dominican Republic, Syria, Niger, Nigeria, Uganda, China, Cambodia, Indonesia, Vietnam, Laos and India.

Healthcare Technology Trainer

This position requires up to 45 weeks of worldwide travel per year, mostly to developing countries and between trips the FEH staff members work from home.

ORBIS welcome applicants who meet the following profile:

- Bachelors Degree or equivalent degree in Biomedical Engineering, Electrical Engineering, or Mechanical Engineering. Master’s degree in relevant field highly desirable.
- Minimum 4 years engineering work experience in a hospital environment.
- Demonstrated expertise in Clinical Engineering and/or Healthcare Technology Management. This includes: (1) Proven in-depth familiarity with different types of equipment and modern health care technology management practices. (2) Operating knowledge of computerized medical equipment management systems, quality assurance and technology planning systems, and (3) The ability to demonstrate repairs and maintenance of medical equipment. Previous experience with ophthalmic equipment is a plus.
- Hands-on training and teaching skills and the ability to apply adult and participatory learning methods. Extensive training delivery experience highly preferred.
- Prior international work experience desirable.
- Excellent interpersonal, communication, and diplomacy skills and the ability to mentor and teach others.
- Solid analytical and problem solving skills with attention to detail.
- Team oriented work style, with a proactive, open-minded, and flexible approach.
- The ability to function effectively in a demanding, fast-paced and constantly changing work environment.
- Oral and written fluency in English – working knowledge of a second language is a plus.
- Ability to lift equipment weighing up to 50 lbs.
- Ability to travel to developing countries up to 80% of the time. This includes having no significant disqualifying factors that would preclude approval of entry visas in the countries on the FEH travel schedule.

For more information about ORBIS and this employment opportunity, please visit our website: www.orbis.org.

To apply, email your resume or C.V. and cover letter to HR@orbis.org

Peru continued

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Medical device regulation in Peru is limited with DIGIMED, the FDA of Peru, focusing primarily on drugs and consumables. A positive development is the start of a healthcare technology assessment program at the Ministry of Health which includes CENGETS as a member.

A visit was also made to the National Institute for Ophthalmology where CENGETS looks to expand clinical engineering activities. The institute has a broad array of specialized and general medical devices. Challenges here included strong vendor dependency, EMI with sensitive recording from a large, central antenna system, and facilities limitations.

Other meetings were held at PUCP with Marcial Rubio Correa, President of PUCP, and engineering faculty, and students in the Master’s BME program. Additional visits with Zarela Esther Solis Vasquez, Vice Minister of Health, and Ramon Granados Torano, liaison at the Pan American Health Organization – Lima office showed the strong connections that CENGETS has to health leaders in Peru.

Future activities look to provide guidance, support and resources to further develop CENGETS for success in Peru.

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