

# Teaching internationally



Dr. Francisco Olivera, associate professor in the Zachry Department of Civil Engineering, travels to different countries, including his native country of Peru, to teach water resources management.

## Texas A&M professor travels the world teaching water resources engineering

Dr. Francisco Olivera says he was born to teach.

“That’s what I have done all my life,” said Olivera, an associate professor in Texas A&M University’s Zachry Department of Civil Engineering.

A native of Peru, Olivera graduated as a civil engineer from the Catholic University in Lima, Peru, and received a master’s degree in hydraulic engineering from the International Institute for Hydraulic and Environmental Engineering in Delft, The Netherlands. In Peru he was a professor of engineering at the Catholic University for 12 years before coming to the United States in 1992 to obtain his doctorate degree from The University of Texas at

Austin. He then worked as a researcher for UT for five years.

In 2001 he joined Texas A&M as an assistant professor in the environmental and water resources engineering area of civil engineering. Olivera is also a faculty member of Texas A&M's intercollegiate water management and hydrological science degree program. He teaches and conducts research on urban stormwater management and the use of geographic information systems (GIS) in water resources engineering.

In addition to his teaching, Olivera travels to different countries to teach young professionals and university students. Since 1995 he has conducted 14 training seminars and continuing education courses sponsored by universities or international and government agencies in Spain, Portugal, Finland, Morocco, Brazil, and Peru.

Although he tailors each course to the needs of the audience, Olivera said all the courses involve his research of using GIS to study such topics as quantifying the effects of land use changes on runoff, understanding the spatial distribution of precipitation using radar precipitation data, floodplain mapping, water flow routing, and analyzing and modeling nonpoint source pollution.

Every summer since 2005, Olivera has taught "Methods for the Sustainable Management of Water Resources: The Use of Geographic Information Systems." It is a two-week course at the Complutense University of Madrid in Madrid, Spain, that country's largest university with around 90,000 students.

For the last three years, he has also taught a two-day class, "Spatially-Distributed Hydrologic Modeling," in Madrid. The class is for students in the master's of general and

applied hydrology program at the Center for Hydrographic Studies of the Center for Studies and Experimentation of Public Works (CEDEX).

Olivera said he first became acquainted with the Madrid center in the early 1980s when he applied to the master's program. Although he was unable to attend because of insufficient funds, 25 years later the school invited him to teach there.

"Teaching at CEDEX was a very rewarding experience," he said.

In fall 2007, he traveled to South America to teach courses in Brazil and Peru. The course in Piura, Peru, was a one-day, 9-hour course, "Use of Geographic Information Systems in Water Resources Engineering," at the University of Piura.

Students for that course came from all parts of northern Peru and had to travel overnight by bus. "The distance is short, but the roads are very bad," he said. "They arrived there in the early morning and went directly to class."

Teaching that course was especially gratifying, Olivera said, because the students were very motivated. "They don't take education for granted," he said. "They have to do something to get a good education, and they are doing that."

Although he enjoyed teaching in Peru, Olivera said he is most proud of what he is doing in Spain. "In Spain they have all the resources," he said. "It is one of the leading countries in the world and they are looking at our program at Texas A&M" for someone to teach their professionals.

For now, Olivera is talking with yet another university in another country—National University of the Litoral in Santa Fe, Argentina—about teaching yet another course. 💧