



# 2017 IANAS ENERGY PROGRAM MEETING TUCSON, AZ



IANAS Energy Program  
Focal Points Bios  
Tucson Arizona - April 24th-26th, 2017

## Argentina



**Dr. Teresa Pérez**

**TEP Consulting**

[veraruizhg@gmail.com](mailto:veraruizhg@gmail.com)

Dr. Pérez is an independent consultant specializing in metallurgy, corrosion, material selection, welding, and failures analysis. She has experience creating custom courses based on her experience as a professor and educator for employees of the oil and gas industry. She has served as a full professor of Thermodynamics at Sabato University Institute Gral San Martin since 1994. Previously, she worked as a principal scientist and head of the Material and Corrosion Department for Tenaris Siderca Research and Development Center, and as a professor with Tenaris University and the Engineering School at the University of Buenos Aires. She received the fellow award from NACE International, and is a full academician of the National Academy of Exact, Physical and Natural Sciences of Argentina.

**Organization:** TEP Consulting

## Bolivia



**Dr. Hernán Guido Vera Ruiz**

**National Academy of Sciences of Bolivia**

[veraruizhg@gmail.com](mailto:veraruizhg@gmail.com)

Dr. Ruiz has published scientific papers on the production of radionuclides with nuclear research reactors and cyclotron, kinetics related to the destruction of the ozone layer, conventional renewable energies, and atmospheric and planetary chemistry. He has participated in postdoctoral research at the Brookhaven National Laboratory in New York, and worked on the Solar Neutrino Experiment under the direction of Raymond Davis, Jr., a Nobel Prize winner in Physics. From 1979 to 2002, Dr. Ruiz served as the section head of the Industrial Application and Chemistry program of the International Atomic Energy Agency. He holds a master's degree in Radiochemistry and a Ph.D. in Radiochemistry and Chemical Kinetics, both from the University of California at Irvine.

**Organization:** National Academy of Sciences of Bolivia, IANAS Energy Program in Bolivia

## Brazil



**Dr. Luis Cortez**

**Faculty of Agricultural Engineering at UNICAMP**

[cortez@agr.unicamp.br](mailto:cortez@agr.unicamp.br)

In addition to his work as a professor at UNICAMP, Dr. Cortez serves as UNICAMP's vice-rector of international relations, and as an adjunct coordinator for special programs at FAPESP. He currently coordinates projects to promote bioenergy solutions in Latin America and Africa. Previously, he coordinated the Interdisciplinary Center of Energy Planning (NIPE/UNICAMP). His projects include the FAPESP Public Policy Ethanol Project for sustainable ethanol production, which led to the 2010 book "Sugarcane Bioethanol: R&D on Sustainability and Productivity." Dr. Cortez holds a bachelor's degree in Agricultural Engineering from UNICAMP, a master's degree from the Université Laval in Québec, and a Ph.D. from Texas Tech University.

**Organization:** IANAS Energy Program in Brazil



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## Colombia



**Dr. José Maréa Rincón**

**American Chemical Society and the Colombian Academy of Exact, Physical and Natural Sciences**

[joserinconmartinez@gmail.com](mailto:joserinconmartinez@gmail.com)

Dr. Rincón is an expert in energy use and process for both the government and private sector. He is chairman of Industrias TECSOL, a consultant to CORPOEMA, and previously worked for Shell Colombia. He has also served as a professor for the National University of Colombia, and as a visiting professor at the University of Kassel in Germany and at Western Kentucky University in the United States. Dr. Rincón is the author of several publications, mostly regarding energy and coal chemistry. Dr. Rincón has degrees in Chemistry from the National University of Colombia and the University of Manchester.

**Organization:** Industrias TECSOL, IANAS Energy Program in Colombia

## Costa Rica



**Dr. Dagoberto Arias Aguilar**

**Technological Institute of Costa Rica**

[darias@itcr.ac.cr](mailto:darias@itcr.ac.cr)

An expert in forestry science, Dr. Aguilar is a professor and researcher with more than 20 years of experience. His current research focus is the use of forest biomass from a sustainable energy approach. Dr. Aguilar is the director of the *Costa Rican Technological Editorial*, which publishes academic books on science and technology, as well as e-books and specialized magazines. He is also a member of the board of EULAC. He holds a Ph.D. in Forestry Sciences from the University of Göttingen.

**Organization:** Technological Institute of Costa Rica

## Dominican Republic



**Dr. Julián Despradel**

**Dominican Republic National Energy Commission**

[jdespradel@cne.gov.do](mailto:jdespradel@cne.gov.do)

Dr. Despradel has worked in both the public and private sectors, and is an expert in solar, hydroelectric, and wind energy. He is also interested in energy efficiency of both homes and offices, energy-efficient transport, and legislative and institutional issues surrounding energy. He has worked with the Dominican Republic Energy Commission since 2008 in areas such as renewable energy, energy efficiency, and planning and projects for rural communities. Since 2013, he has been responsible for international relations for the Dominican Republic. During his time in the private sector, he worked with companies worldwide on project feasibility, materials management, logistics, and customs facilitation.

**Organization:** IANAS Energy Program in the Dominican Republic

## Ecuador



**Dr. Melio Saenz Echeverría**

**Petroecuador**

[msaenz47@gmail.com](mailto:msaenz47@gmail.com)

Dr. Echeverría is part of the technology transfer team at Petroecuador, the national oil company of Ecuador. Early in his career, he was a faculty member in the department of Engineering, Mathematics and Physical Sciences at the Central University of Ecuador. In 1972, he obtained a scholarship from the French government to study at the National School of Computer Science and Applied Mathematics of Grenoble where he became a specialty engineer in Scientific Computing and completed a



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minor in Operations Research. Dr. Echeverría later became a professor at the National Polytechnic School of Ecuador and was also invited as a professor of Mathematical Models in Environmental Engineering at Vanderbilt University. Between 1981 and 1984, he was part of the Steering Committee of OPEC. He also co-created the Latin American Center for Scientific Computing and Industrial Informatics. Dr. Echeverría has both a master's degree and Ph.D. in Fluid Mechanics.

**Organization:** Petroecuador

## Honduras



**Dr. Wilfredo Flores**

**UNITEC**

[wilfredo.flores@gmail.com](mailto:wilfredo.flores@gmail.com)

Dr. Flores is a researcher and lecturer in issues relating to energy, computer applications, and electric power systems. Having worked in the energy sector for more than 20 years, Dr. Flores is also a consultant on topics such as new connections to the grid in Central America, regulatory energy issues, and energy market analysis. He previously served as the national coordinator for energy policy in Honduras and as a professor of Physics and Engineering. Dr. Flores is also the author of several articles related to the Honduras energy sector, particularly sustainable energy policy. He is a senior member of the Institute of Electrical and Electronics Engineers, CIMEQH, and the National Academy of Sciences in Honduras. Dr. Flores received an Electrical Engineering degree from the National University of Honduras, an MBA from TEC of Monterrey, México, and a Ph.D. from the National University of San Juan, Argentina.

**Organization:** IANAS Energy Program in Honduras

## Mexico



**Dr. Arturo Fernández Madrigal**

**Institute of Renewable Energy, UNAM**

[www.ier.unam.mx](http://www.ier.unam.mx)

[afm@ier.unam.mx](mailto:afm@ier.unam.mx)

Dr. Madrigal currently works in the Laboratory of Innovation and Characterization of Solar Cells at UNAM. He has 23 years of experience in the characterization of solar collector (flat-plate and evacuated) and the preparation and characterization of semiconductors for hydrogen production. Currently a member of the Mexican Academy of Sciences, Dr. Madrigal previously served as the president of the Mexican Hydrogen Society and as treasurer of the Mexican Solar Energy Society. He was also a visiting researcher at the National Renewable Energy Laboratory, the lab for the United States Department of Energy's Office of Energy Efficiency and Renewable Energy. He holds a bachelor's and master's degree, as well as a Ph.D. from UNAM.

**Organization:** Institute of Renewable Energy, UNAM

## Mexico



**Dr. Claudio A. Estrada**

**Institute of Renewable Energy, UNAM**

[cestrada@ier.unam.mx](mailto:cestrada@ier.unam.mx)

In addition to overseeing the Tucson branch of the National Autonomous University of Mexico (UNAM-Tucson), Dr. Estrada works as a researcher for the Institute of Renewable Energies at UNAM where he examines transport phenomena in solar concentration systems. He was previously director of the Center for Energy Research at UNAM where he helped launch the Bachelor of Engineering in Renewable Energy program. One of the foremost promoters of solar energy in Mexico, Dr. Estrada previously served on the board of directors of the International Solar Energy Society and as president of the Mexican Association of Solar Energy. Currently a member of the National System of Researchers and an associate editor for the *International*



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*Journal of Solar Energy*, Dr. Estrada has published more than 170 research papers. He has a bachelor's degree in Physics from UNAM and a Ph.D. in Mechanical Engineering from New Mexico State University.

**Organization:** Institute of Renewable Energy, UNAM – IANAS Energy Program

## Nicaragua



**Dr. Claudio Wheelock**

**Central American University in Managua**

[claudiowheelock@gmail.com](mailto:claudiowheelock@gmail.com)

Dr. Wheelock works in the solar station at the Central American University of Managua where he secures the quality of climatic data and solar data, and assures that instruments and software are performing correctly. His group also designs and manages large-scale projects related to renewable energy, such as using solar photovoltaic energy to remove bacteria from shells, or solar thermal energy to dry out wood. These projects examine solutions to improve the quality of life and environmental conditions of low income populations. Dr. Wheelock has also managed studies exploring the social and environmental impacts of household electrification using solar photovoltaic panels in rural regions without access to the national grid. His group also contributes to teaching practices of renewable energy to students in the Environmental Engineering program.

**Organization:** Central American University in Managua

## Panama



**Dr. Guadalupe González**

**Panamanian Association for the Advancement of Science**

[guadalupe.gonzalez@utp.ac.pa](mailto:guadalupe.gonzalez@utp.ac.pa)

Dr. González is an assistant professor of Electrical Engineering at the Technological University of Panama where she is also co-director of the Advanced Energy Technologies and Sustainability Research Program. She is also a member of the Panamanian Association for the Advancement of Science and Sigma Xi. She is a senior member of The Institute of Electrical and Electronics Engineers where she volunteers in numerous capacities and is currently vice president of the group's Panama section. Her areas of interest include: energy planning, smart cities, sustainable engineering, and modeling of energy systems. Dr. González obtained a bachelor's degree in Electromechanical Engineering from the Technological University of Panama and a Ph.D. in Electrical Engineering from Texas A & M University.

**Organization:** Panamanian Association for the Advancement of Science

## Peru



**Dr. Manfred Horn**

**Professor of Physics at the Science Faculty of the National Engineering University (UNI), Lima, Peru.**

[mhorn@uni.edu.pe](mailto:mhorn@uni.edu.pe)

Dr. Horn's research examines solid state physics and materials for solar energy conversion. Pilot projects include consultations in renewable energy, energy planning, and the environment. Dr. Horn is also interested in the development and transfer of renewable energy technologies, particularly solar drying of agricultural products and photovoltaics for rural electrification. He also serves as the coordinator of the Iberoamerican Network for Sustainable Applications of Photovoltaic Energy, and is the former president of the Peruvian Solar Energy Association. He holds a Ph.D. in Physics from University of British Columbia, UBC, in Vancouver; an honorary doctorate from the National University of Tacna, Peru; and is an honorary professor of the National University of Cuzco, Peru.

**Organization:** National Engineering University, Lima, Peru



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## United States of America



**Dr. John Millhone**

**Co-Chair, IANAS Energy Program**

[John.millhone@verizon.net](mailto:John.millhone@verizon.net)

Dr. Millhone is an international energy consultant who recently worked with the Federation of American Scientists and the Carnegie Endowment for International Peace. He is a technical reviewer for the U.S.-China Clean Energy Research Center, a member of the board of directors of the Collaborative Labeling and Appliance Standards Program, and co-chair of the IANAS Energy Program. Following the 1973 OPEC oil embargo, he worked as director of the Iowa Energy Agency and then with the Minnesota Energy Agency. He later joined the U.S. Department of Energy where he managed building research, climate change, and domestic and international deployment programs. He also chaired the International Energy Agency's End Use Working Party and the U.S. Energy Association's Energy Efficiency Committee, and was the coordinating lead author of the Buildings Chapter of the Intergovernmental Panel on Climate Change special report on technology transfer. He started his career as a journalist with the Des Moines Register, the Detroit Free Press, and the Associated Press.

**Organization:** IANAS Energy Program Co-Chair

## Venezuela



**Dr. Mireya R. Goldwasser**

**Science Faculty, School of Chemistry at the Central University of Venezuela**

[mireya.goldwasser@ciens.ucv.ve](mailto:mireya.goldwasser@ciens.ucv.ve)

[mireyagold@gmail.com](mailto:mireyagold@gmail.com)

Dr. Goldwasser is a fellow of the Academy of Physical, Mathematical, and Natural Sciences of Venezuela and an honorary member of the Academy of Engineering and Habitat. She served as a consultant to Petrobras in the GTL Program from October 2002 to October 2009. Dr. Goldwasser is a guest speaker to several universities in Venezuela and around the world. She has published more than 240 scientific papers and technical reports. She was an invited researcher to the Institute of Research on the Catálise in Lyon, France and a guest lecturer at the University of Lille, France. Dr. Goldwasser holds a degree in Chemistry from the Central University of Venezuela and a Ph.D. in Chemical Engineering from the Imperial College in London.

**Organization:** Central University of Venezuela