

USC/Chevron Frontiers of Energy Resources Summer Camp 2009

The first ever Frontiers of Energy Resources Summer Camp 2009 was described by many as “INCREDIBLE”. Chevron Corporation and USC’s Viterbi School of Engineering collaboratively hosted a summer camp for High School students and High School Science/Math Teachers at the University of Southern California in Los Angeles, June 28th through July 2nd, 2009. The Frontiers of Energy Resources Summer Camp is a preparatory interactive training program focusing on various energy resources including fossil fuels, solar energy, biofuel, wind energy, nuclear energy, and information technologies for energy efficient operations. This unique program is designed to introduce exceptional high school students and teachers to the opportunities and career possibilities available in the global energy resources industry.

Campers, selected on a competitive basis, eagerly arrived and right away were introduced to research assignments. Throughout the program, all campers were to learn as much as they could from domain expert guest speakers, and come up with energy solutions of their own.

The following lectures are available for you to watch:

Monday, June 29th, 2009

[USC Welcome](#) – Dr. Yannis Yortsos, Dean of Engineering at the USC Viterbi School of Engineering and the Chester F. Dolley Professor of Petroleum Engineering in the Department of Chemical Engineering

[Energy Supplies and Demand](#) – keynote delivered by Dr. Donald Paul, Executive Director, USC Energy Institute and William M. Keck Chair of Energy Resources and founder and president of Energy and Technology Strategies, LLC

[Chevron Welcome](#) – Mr. Warner Williams, Vice President of Chevron’s Gulf of Mexico Business Unit

[Hydrocarbon’s Everywhere](#) – Dr. Katherine Shing, Associate Professor at Department of Chemical Engineering and Materials Science University of Southern California

[Subterranean Resources / Oil / Gas / Coal / Geothermal](#) – Dr. Iraj Ershaghi, Omar B. Milligan Professor and Director of the Petroleum Engineering Program at the University of Southern California, and also the Executive Director for the Center for Interactive Smart Oilfield Technologies (CiSoft) at USC

Tuesday, June 30th, 2009

[How Information Technology Enables the Digital Oilfield](#) – Mr. Jim Crompton, Manager of Upstream IT Architecture at Chevron

[Solar Energy](#) – Dr. Dan Dapkus, William M. Keck Professor of Engineering, Director for the National Center for Integrated Photonic Technology (NCIPT), and Director for the Center for Photonic Technology at USC

Wednesday, July 1st, 2009

[Enhanced Oil Recovery](#) – Dr. Kristian Jessen, Associate Professor at Department of Chemical Engineering and Materials Science University of Southern California

[The History and Beauty of Subsurface Geology](#) – Dr. Lorraine Leon, PhD in Geology from University of Southern California

[A Case Study: How we actually drill and complete a horizontal hole in the Barnett Shale](#) – Mr. Stephen Smith, Vice President Operations with Harding Company.

[Hydrogen Economy / Fuel Cells / and Microbial Fuel Cells](#) – Dr. Zhen He, Postdoctoral Research Associate at USC

[Nuclear Energy / Fusion / Fission / Breeder Reactors](#) – Dr. Isaac Maya, Director of Research for CREATE (National Center for Risk and Economic Analysis of Terrorism Events) at the University of Southern California

[Potentials of Wind Energy](#) – Dr. Mason Medizade, Professor of Mechanical Engineering, Cal Poly State University, San Luis Obispo, California

On Thursday, July 2nd, 2009 the campers were judged on their energy solution presentations. Click below to see judges: Cauligi Raghavendra, Don Paul, and Vega Sankur's rulings.

[Team 1: Jimmy Du, Mario Rivera, Lyz Ruvalcaba, and Franklin Wu – Most Informative Energy Solution](#)

[Team 2: Catherine Chen, Adam Cox, Jessie Cruz, and Reyna Vital – Best Presentation Energy Solution](#)

[Team 3: Ian Cahatol, Dana Handy, Kenneth Holstad, and Emma Meinke – Most Realistic Energy Solution](#)

[Team 4: Michael Goulis, Nayeon Kim, Vince Labinpuno, and Sogole Tabatabaiepur – Best Technical Energy Solution](#)

[Team 5: Garrett Hara, Danny Hill, Samantha Plete, and Esaú Sanchez – Most Creative Energy Solution](#)

[Bonus Feature: Hear from the campers as they reflect upon what they've learned at the Frontiers of Energy Resources Summer Camp 2009](#)

“This summer program was an amazing experience for all involved. I truly hope that its success has earned the privilege to continue for years to come”, said camp coordinator, Juli Legat.

[Click Here for more information about Frontiers of Energy Resources](#)