

Welcome to the 42nd IEEE Photovoltaic Specialists Conference! This year's meeting is anticipated to host over 1500 attendees, in 11 technical areas covering the latest advances in photovoltaics, from fundamentals, material science, devices, systems and reliability, through to policy and PV deployment acceleration.

The 42nd PVSC, kicked off over Saturday and Sunday with short courses and tutorials, hosted by leading experts in the field, in a diverse range of photovoltaic. Participants in this year's PVSC have been registering at the Hyatt Regency New Orleans (picture to right), the home of this year's conference and exhibits. The Big Easy, is the perfect backdrop for the PVSC, with plenty to see and do, when not catching up with the latest PV developments!



On Saturday, Dr. Angus Rockett hosted a full day short course on thin film deposition, taking students through the fundamentals of vapor phase deposition processes, thin film nucleation and growth, epitaxy, and evaporation, sputtering, and chemical vapor deposition, as well as some of the technical aspects of realizing thin film deposition. Also running the full day on Saturday, Dr Steven Hegedus hosted a short course on the Fundamentals of PV, with students introduced to some of the most fundamental concepts in the PV conversion process and how key cell technologies operate.

In the Sunday morning tutorial sessions, Dr. Tim Anderson gave an overview on the technology status and critical issues for manufacturing high volume thin film photovoltaics with valuable insights based on his over 3 decades of experience in this field. Dr. Stuart Bowden gave the tutorial on Silicon Solar cell Technology covering the



full processing flow of silicon solar cell production as well as the device physics of key current and future technologies. Dr Keith Emery, Dr Sachit Grover and Dr Jian Li gave the Advanced Electrical Characterization Techniques and Analysis tutorial. Drawing on decades of experience in characterizing solar cell performance attendees were taken through how one might properly measure electrical data and how to analyze it. Dr. Clifford Hansen, Dr Joshua Stein, and Dr. Daniel Riley gave a tutorial on Photovoltaic system performance modeling, showing attendees how PV performance can be predicted with from widely available weather information, with the fundamentals of the modeling steps required being covered.

In the Sunday afternoon tutorial session, Dr. Gavin Conibeer took attendees through key aspects of third generation photovoltaics and advanced concepts to take efficiencies beyond the Shockley-Queisser limit. Dr. John Wohlgemuth hosted the photovoltaic module reliability tutorial, a critical topic as photovoltaics

enters the mainstream for energy generation and seeks large scale investment. Dr. Frank Dimroth (pictured right) gave a detailed tutorial on high efficiency multi-junction cell technology using III-V semiconductors looking at the various approaches currently being explored including the integration with silicon. Dr Christophe Ballif taught the Silicon Heterojunction PV Technology tutorial, which covered the operating principles and some of the key materials properties exploited in this rapidly progressing area, as well as where the field may be heading.



Finally, in conjunction with the Louisiana Solar Community the IEEE PVSC held SolarDay 2015 at the University of New Orleans, Engineering and TRAC facility from 11am to 5pm. There were loads of demonstrations of how solar energy can be harnessed, as well as energy efficiency and of financing solar.



The innovative ideas of local high school students were also showcased, giving a glimpse of perhaps the next generation of researchers. The event provided a great way for the PV community to reach out to the general public and show that the innovations stemming from the work being reported at this conference have a real impact on people's lives.

That wraps up the opening weekend of the 42nd IEEE PVSC conference! If you haven't done so already, you can still get tickets for this year's Conference Banquet, which will be held at Generations Hall on Thursday evening, at the conference registration desk. With an innovative masquerade element being added to the festivities, it promises to be quite an evening.