



You are cordially invited to Seminar to be delivered by **Prof. W.S. Sampath**, currently a Professor of Mechanical Engineering at Colorado State University & Site Director of the NSF Industry University Cooperative, Research Center for next Generation Photovoltaics.

CdTe Photovoltaics for Sustainable Electricity Generation

Date : Wednesday, 16th March 2016
Time : 10:00am - 11:30pm
Venue : ET108, Energy Building



Abstract: Energy sustainability represents one of the grand challenges facing modern society, and CdTe thin film solar photovoltaics provide the best opportunity for rapidly expanding renewable energy. CdTe PV is currently competitive for generating electricity in many parts of the world providing electricity at 7-9 US cents/kWh from utility scale projects without subsidy and the costs are decreasing rapidly. Recently an agreement was made to sell electricity from CdTe PV from a new 100 MW field at 3.87 US cents/kWh. There are no technical barriers to substantial increase in CdTe PV production. In our center, CdTe research has been ongoing since 1991. Device efficiency of 18.3% (independently certified) on low cost soda-lime glass substrates using a low cost sublimation process with two minute cycle time in modest vacuum has been demonstrated. The current research focus is to significantly increase device efficiency and increase module life from 25 years to 50 years to facilitate the US Dept. of Energy (DOE) goal of 2-3 US cents/kWh while maintaining a direct line of sight to GW scale manufacturing.

ENERGY SEMINAR SERIES 2016

SPEAKER PROFILE

Dr. W. S. Sampath is a professor of Mechanical Engineering at Colorado State University. He is the founding Director of the National Science Foundation (NSF) Industry/University Co-Operative Research Center for Next generation Photovoltaics (PV). The members include industry leaders such as First Solar, the largest manufacturer of CdTe PV and 5N Plus the largest supplier of CdTe materials for the industry. His research has been focused on CdTe photovoltaics since 1991. His research has been applied to PV manufacturing in industry including at Abound Solar for manufacturing at the rate of 180 MWs/Yr. His research is also supported by the Dept. of Energy (DOE).