

Renewable Energy: Optimization and Simulation tools

Renewable energy encompasses an incredibly diverse array of innovative technologies used in power generation. From traditional and new resources - such as biomass, water, wind, solar, fuel cells, tidal and wave, and hydropower - renewable energy is playing an ever-increasing role in the global share of electricity generation, as both energy producers and consumers seek to increase deployment of renewable energy.

Many universities have also started offering classes on renewable and alternative energy course to both undergraduate and graduate students. Simulation and analysis tools on these alternative energy resources may be useful in conducting these classes. This workshop compares some of these simulation tools and evaluates their effectiveness based on their use.

Themes of the workshop

- 1- Optimization and simulation of photovoltaic systems by PVSYST software
- 2- Renewable Energy system simulation using TRNSYS Software
- 2- RETScreen Software and its use for Renewable energy system evaluation
- 3- Organic Rankine Cycle (ORC) simulation using Hysys Software
- 4- Optimization and simulation of photovoltaic systems by PVSYST software
- 5- Comparative study of climatic and meteorological data using PVSYST and METEONORM software
- 6- Numerical investigation of turbulent diffusion flame by Stereo-PIV

Workshop chair:

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