

PREFACE

S. K. Shukla

Department of Mechanical Engineering, Indian Institute of Technology, Banaras Hindu University, Varanasi, India

Increasing energy demand, global climate scenario, and constrained energy supplies are likely to impact quality of life in the future. Thus, the generation of energy from eco-friendly sources and its management should certainly get highest priority. The economic health of any country is almost in commensuration of per capita energy consumption in that country. A secure, adequate, affordable, environment-friendly and reliable supply of energy is thus a necessary precondition for sustainable development. It is a matter of time that climate will definitely lead to shifts in regional patterns of energy use. These include some reduction in space-heating requirements in temperate regions and increased energy requirements for air conditioning and irrigation in less temperate regions. Additional energy consumption in the conventional generation norm will further compromise environmental quality. To avoid a dangerous anthropogenic interference with the climate system, a massive shift to carbon neutral power systems must be accomplished.

This issue consisted of the recent research in this direction and total five numbers of papers which have been reviewed and selected for publication. Cogeneration and energy efficiency are similar issues for metering the today's energy demand and supply gap. Fresnel lenses are one of the hopes for solar heating applications where as Biogas and gasification systems are need of hour in many developing countries.