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# SYNERGY WITH ENERGY

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THEME:  
Conventional & Non-conventional Energy:  
Challenges & Opportunities

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**Prof. T. Harinarayana**  
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Prof. T. Harinarayana is the Director of the Gujarat Energy Research and Management Institute, Gandhinagar, Gujarat. He also holds the position of an Independent Director, Gujarat State Petroleum Corporation Limited. Prof. T. Harinarayana has over 30 years of experience of working with CSIR-National Geophysical Research Institute as Scientist "G". He is a leading scientist, well recognized for his excellence in deep EM Technique-Magnetotellurics among the national and international scientists. His research publication record has crossed 100 recently.

Prof. T. Harinarayana holds two doctoral degrees in the field of Electromagnetics-one from Edinburgh University, UK & the other from Indian School of Mines, Dhanbad. He has guided 6 research students for their doctorate degree. His academic and research excellence created opportunities for him to serve as a visiting professor and scientist at the University of Tokyo, Japan and the University of Texas at Austin, USA respectively. He has also organized and chaired a large number of conference / seminars and technical sessions.

Prof. Harinarayana has done research studies at NGRI, Hyderabad for more than 30 years. At GERMI, Gujarat, Prof. Harinarayana has published innovative ways to develop Solar energy enhancement. This includes

## AN INNOVATIVE SOLUTION FOR POWER PROBLEM IN INDIA

### Abstract

*Water, power & earth are the three most important items necessary for any country. Apart from water, power is utmost important for every person. India is now facing acute shortage of power by all, more specifically by our industry sector. Due to this problem, our economy is not growing as per our expectation. Earlier, for a similar situation related to food, we could overcome the problem through Green Revolution. Later, we could overcome the malnutrition for our younger children and babies through White Revolution. Now we are facing power shortage problem and the time has come now to bring out Energy Revolution. The economic growth of the country crucially depends upon the generation of power and also on the per capita consumption. As compared to many countries, India per capita consumption is far below. In such a situation, we need to make an advance plan for the future. In the present study, an innovative solution is suggested for our power problem.*

*GERMI is pushing many innovative ideas and has taken up renewable energy projects in many ways. Here the total power problem requirement for the next decade has been looked into in a holistic manner and suggested innovative and permanent solution. Hopefully, the suggested solution will make India more independent in power sector. If implemented, it helps our country to grow economically, generate more employment to the large technical human resource available in our country, helps environment and reduces the carbon dioxide and other toxic gases to the atmosphere.*

national solar highways, solar panels on agricultural land etc. This helps to generate more power in small location.

Prof. Harinarayana has been involved in many innovative projects related to oil exploration, geothermal energy exploration, Solar energy generation etc in different regions of India.

Prof. T. Harinarayana is a member of the Russian Academy of Natural Sciences, Moscow. Became a Member of Governing Council of newly formed IIIT-Vadodara. Recently, he has received ISCA-International Best Researcher Award-2013. He received the gold medal and a citation from Indian Geophysical Union (IGU) - Electroteck Endowment award during its 49th Annual Convention-2012. He has received the National Mineral Award-1991, the Andhra Pradesh Scientist Award-2008. While serving as Scientist and Head of the magnetotelluric Division, NGRI, Hyderabad he became a fellow and a member of national (IGU, AEG, APAS etc.) and international (IAGA, EMSEV etc.) scientific societies, academic forums and editorial boards of various techno-scientific journals of global importance.