

## **The International Workshop on New Horizons in Nuclear Reactor Thermal Hydraulics and Safety Jan 7-8, 2010**

The International Workshop on New Horizons in Nuclear Reactor Thermal Hydraulics and Safety was organized by AERB and held in Niyamak Bhavan, AERB, Jan 7-8, 2010. The workshop was organized by AERB with the co-operation of Board of Research in Nuclear Sciences (BRNS). The workshop was also partly sponsored by ESI-India, Bangalore. Recent developments and future challenges in various areas of Nuclear Reactor Thermal Hydraulics and Safety were discussed in the workshop. Dr. S. K. Gupta, Director, SADD, AERB made opening remarks and Shri S. S. Bajaj, Chairman, AERB delivered the presidential address. Prof. S. P. Sukhatme, Former Chairman, AERB inaugurated the workshop and delivered the inaugural address. About 25 key note addresses were delivered by international and national experts working in reputed organizations and universities in this field. Eminent personalities working in this field participated in this workshop. Shri. R.S. Rao Organizing secretary of the workshop thanked all key note speakers and participants.

The following topics were covered in the workshop:

1. Modelling of two phase flow in new generation reactor systems
2. Natural circulation in innovative reactors
3. Thermal hydraulics of supercritical fluids reactor systems
4. Challenges of thermal hydraulics of FBRs
5. Containment thermal hydraulics
6. Severe accidents
7. Best estimate and uncertainty analysis
8. Thermal hydraulic challenges for HTRs
9. Status of thermal hydraulic research in India
10. Application of CFD codes
11. Probabilistic safety assessment

The workshop concluded with a panel discussion was moderated by Prof. B. R. Sehgal, Stockholm, Sweden. Dr. N. I. Kolev, Siemens, Germany, Prof. Micheal Podowski, RPI, USA, Prof. U. N. Gaitonde, IIT-Bombay, India, Shri G. Vaidyanathan, IGCAR, India, Shri S. P. Dharné, NPCIL, India were the panelists. The discussion focused on India-International collaboration in the area of nuclear thermal hydraulics and safety.



**Shri S. S. Bajaj, Chairman, AERB delivering  
The presidential address**



**Prof. S. P. Sukhatme, Former Chairman AERB,  
delivering inaugural address**



**Dr.S. K. Gupta,Director SADD,  
Convener of the workshop, addressing the gathering**



**Prof. B. R. Sehgal, Stockholm, Sweden  
addressing the gathering during Panel Discussion**



**Participants from various  
organizations**



**Prof. Micheal Podowski, RPI, USA  
Delivering key note address**