



**IUVSTA Workshop on Ultra High Vacuum Techniques for Large  
Volume Devices (IUVSTA-LVD)**

*19-22 March 2013*

*Director, Institute for Plasma Research*

*requests the pleasure of your company on the occasion of  
Inauguration of the Workshop on*

**Tuesday, 19<sup>th</sup> March 2013, 09:30 am**

**at**

**Institute for Plasma Research, Bhat, Gandhinagar, Gujarat**

## Report on Workshop “Ultra High Vacuum Techniques for Large Volume Devices”

(IUVSTA-TTC #15) organized by Institute for Plasma Research and Indian Vacuum Society (IVS) during 19-22 March, 2013.

The workshop objectives were:

- To bring together vacuum scientists and technologists interested in all aspects of Ultra high vacuum (UHV) systems for large volume devices.
- Various techniques of achieving UHV
- How to accomplish the challenging task of design and fabrication of a large UHV chamber including the aspect of wall cleaning
- Leak detection technique for large volume devices
- To promote the recent progress in the UHV techniques for large volume devices and related industrial development.

The participants of this workshop are involved in fusion research, accelerators, large experimental systems and detectors, space technologies etc. and industries related to vacuum science in India and other countries around the world.

- Researchers from Indian Scientific organizations (46)
- Academicians from Indian Universities (10)
- Technologists from different organizations (08)
- Industrial (08)
- Students (08)
- Foreign Delegates (05)

There were four categories of talks

Plenary Talks by foreign speakers	07
Special Talks	04
Invites talks	07
Contributory papers	32 (Presented )

Topics covered from large projects

- Talks were mainly in the domain of
  - CERN – Large Volume and specific vacuum system, experience and remedies
  - KIT, Germany – Front end technology to achieve clean and efficient pumping system for fusion machine – The ITER machine
  - ITER Project – 3 talks
    - ITER organization (Largest Vacuum Vessel for a fusion machine with very specific requirements and the vacuum system of the different systems of ITER)
    - ITER-India – ITER Cryostat – The largest vacuum vessel of Fusion
  - LIGO (State of the art project posing challenges to the Vacuum technologists, achievements and experience)
  - Special techniques of pump down (Getters and NEG pump)
  - Accelerator projects (cyclotrons, Indian Accelerator program requirements and sub-system vacuum requirements such as RF system and more specifically Materials)
- Contributory papers covered a wide range of applications, sharing the experience of design, operation and difficulties faced during execution of the respective projects.
- Address of the workshop website: <http://www.ipr.res.in/iuvsta-lvd/>

