

### Panel Discussion on “ Green Technology – Current Status and Future Challenges.”

**Brief :** Technology advancement is always welcome, but its impact on global warming is a great concern. All responsible organizations world over are trying to develop focussed strategies and develop method to overcome this challenge.

In the times of more and more urbanization, the issue becomes further serious and needs to be addressed with a optimized solution.

Process Division Chair suggested to take-up this subject to make all aware of the concern and address the challenges.

An event was organized at Beatles Hotel, Powai, Mumbai on 11<sup>th</sup> May with panels from relevant organizations.



Mr Sunil C Panchbhair , Secretary Process Division, welcomed all guests over high tea.

The panellist included **Mr Rajneesh Khosla – Head of Mechanical Engineering Department, Bureau of Indian Standard (BIS)**, **Dr Ramki Subramanian, Sr. Vice President and Head of Business Development- Reliance** , **Mr Ajeet Oak, Primove Infrastructure Development Consultant Pvt. Ltd.** and **Mr Sheetal Kulkarni, Senior General Manager, R&D, Blue Star Ltd.**



The Panel Speakers were introduced by moderator Mr Hardik Viadya. Starting the session, he mentioned that 11<sup>th</sup> May was also National Technology being celebrated in memory of Test of India's Atomic capabilities at Pokharan.

Another mention was done for Dr. Milind Atrey , who was congratulated for the new position as Dean of R&D in IIT, Bombay, Mumbai.

In his opening address, Dr. Atrey shared message from Dr. Tim Fox stating relevance of the subject to all technical people to take forward the initiative and shared his best wishes. Dr. Atrey appealed all stakeholders to focus working collaboratively and cohesively towards the issue of global warming and concern over consumption of natural resources.

The session started with Mr Rajneesh Khosla (BIS) , who shared his brief presentation and informed initiatives by Bureau of Indian standard (BIS), Government of India particularly in the field of energy and technology advancement. H shared the methodology, consensus based method of standard formation including all stakeholders as Labs, experts, manufacturers and consumer bodied. He shares present standards especially focussing Green Technology in various sectors as construction, e-Mobility, HVAC etc.



The discussion session opened with all other panellists sharing their areas of work and their respective organizational focus towards the Green Technology development and execution. Mr Hardik, moderator, initiated questions and had set the discussions rolling.

Mr Kulkarni, Blue Star (Air Conditioning Biz) explained the challenge of high energy efficient products leading to higher cost for customer. Another challenge he mentioned was need of trained and skilled manpower for handling the flammable refrigerant in the households while doing the appliance servicing. The point was well noted by audience endorsing skill development program requirement.

Other ways to reduce heat load, as per Mr Kulkarni was focus on green building during construction stage itself. In other way, it can also reduce air conditioning energy spent. He opined that ,air-conditioning was now no more luxury but a mean of efficiency enhancement and hygiene..

Dr. Ramki Subramanian, (Reliance) suggested the need of development of energy efficient new composites at this stage. Alternate ways like items reuse, extension of its life can save overall resources and hence energy. He cited an example of a thermoplastic development , that can be soon ready to replace wood, with same feel and touch. However he also mentioned the concern of market acceptance for new technological changes. He stressed to have strict focus to keep Safety, reliability and Quality of the end product for customer and not to make any compromise.

Mr Oak (Primove) had expressed the view of improving on resources spent sanitation by avoiding the chemicals. He shared availability of method of using naturally present resources as worms and insects to handle the waste. His experience of setting up installations and its efficient working over last few years was appreciated by audience. He talked about scalability and making this solution more popular for multi point societies or the bigger settlements. Managing the costs to make any such innovation a practical way for business development.



Mr Rajneesh expressed importance of maintaining natural resources at pure level. Be it river water, solid waste, E waste or even heat disposal.. He shared energy related standards in various fields as aviation fuel, construction material ,HVAC refrigerant and other standrds in the offing. He touched upon involvement and participation of young engineers in formation of new standards of BIS. During the discussions , examples of Norway and Netherlands came up, where bicycles are promoted to use with dedicated tracks and its free availability. He also urged Industry to react faster to forming standards by contributions in time .



Q&A session was full of enthusiastic participation from audience. Few strong stakeholders making impact on young innovators and policy making was also discussed and it was well emphasised by the Govt agency to always support in general the national interests to fullest extent. Subsidizing the high energy efficient parts for machinery or products, to encourage usage, Govt was urged to look into tax structure review with appropriate body. All the panellists satisfied the queries by detailed and simple explanation to the fullest of the satisfaction of the audience..



The panellists were presented with memento as appreciation of their contribution towards Green Technology and the event was concluded then with cocktails and networking dinner with exchange of good ideas.

