Brainstorming Session
on
Industrial By-products for Sustainable Development

9:30 to 17:00, August 22, 2018 @ IIT Bombay

The pace at which present day industrialization and urbanization is occurring, the environment is getting affected tremendously. This is mainly due to the fact that the by-products (to be read as the manmade resource and not as the industrial waste) coming out of various industries (viz., mining, construction, dredging, manufacturing, textile, processed food, etc.) pose a major challenge in terms of their handling/disposal/management. With the strict rules, regulations and the awareness among the common man, these issues attract a special attention and necessitate 'extensive revision' of the existing *laws of the land*. One of the most optimal ways in which the millions of tons of this manmade resource, could be consumed (or utilized), in bulk, would be their valorization by creating a physico-chemico-mineralogical-geotechnical synergy between the by-products from different industries for sustainable development. Such a philosophy would be a boon in an era in which conventional construction materials (viz., soils for construction and agriculture, cement, lime, sands and aggregates) have already exhausted or are being recognized for creating environmental imbalance.

In Indian context, some researchers have been working in this direction already, however a lot needs to be done still. In order to understand the scenario prevailing at Indian industries (viz., what type and the amount of waste is being generated, and how these industries are tackling the issues related with the handling/disposal of these wastes), the said brainstorming session, which is in line with "Swachh Bharat Mission", the ambitious programme of Govt. of India, is being organized at IIT Bombay, under the aegis of **Science and Engineering Research Board (SERB)**, **Department of Science & Technology (DST)**, the **Ministry of Environment, Forest and Climate Change (MoEFCC)**, **Technology Information and Forecasting Assessment Council (TIFAC)**, **Central Pollution Control Board (CPCB)** and **Indian Railways**.

The agenda for this session is to create a discussion on specific issues faced by the Indian industry, as far as disposal and utilization of the hazardous and toxic waste (read by-products) are concerned. Such a platform would boost industry-academia interaction and aid scaling up of the existing laboratory technologies/methodologies along with the development of practical and need-based research ideas. This initiative would not only help the industry grow in an 'environment-friendly' manner but also help the sustainable development of the nation as a whole and the contemporary philosophy: "***Manmade Soils***".

It is expected that the brainstorming session will bring participants from Indian industry, pollution control boards, academia, NGOs, bureaucracy and respective ministries.

The following activities are being planned.

Session details	Activity
First session (Pre-lunch)	1. Introduction & briefing regarding the theme of the session 2. Discussion to take stock of the current status of the industrial by-products. 3. Presentations by various industries, Govt., semi-govt. and private agencies, Civic Bodies/NGOs about the state of the affairs (5 min. each).
Second session (Post-lunch)	1. Discussion to identify the way forward. 2. Defining roles of the participating agencies and individuals. 3. Identification of the theme areas for pursuing further research/technology demonstration & policy preparation.

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