

**AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY**  
**VINAYAKA MISSIONS RESEARCH FOUNDATION**  
**DEPARTMENT OF BIOTECHNOLOGY**

**REPORT ON GUEST LECTURE**

**21.2.2019**

Department of Biotechnology organized a guest lecture on **“Market Drivers for Bio plastics”** by **adjunct faculty Dr. Sundar Balakrishnan, Managing Director, Natur-Tec-India on 21.2.2019**. At the outset Dr.R.Devika, Professor and Head, Biotechnology welcomed the gathering which was followed by the introduction of the speaker by Dr. R.Subbaiya, Associate Professor, Biotechnology.

Dr. Sunder delivered the Guest Lecture and focused on bio plastics includes valued proposition and drivers for bio plastic and biodegradable plastics greening the supply chain. Plastic consumption in India as per capita is just one – fifth of the world average, N.America-90kg, S-America-18kg, India-5kg, Europe-65kg. He also focused the demand for bio plastics is growing vice-versa and it is fast moving consumer good, automotive, appliances, retail services, entertainment. He gave a statistical per capita plastic consumption in India is totally MSW per day is 100 million. In almost 2047 almost 1400 sq.km would be required for land filling the MSW generation by an environmental changes.

He added the key changes like dispersed economic populations cause difficult changes in development of waste matter infrastructure and includes the implementation of regulation. Bio plastics include bio based feed stock, compostable end of life and sustainability is bio based. Added to biodegradability includes fragmentation organic matter break down into microscopic fragments, biodegradability includes complete microbial assimilation of the fragmented product and compostability include complete biodegradation (100% carbon conversion within 180 days more or less). Values in managing organic waste: Reduction in land fill space, direct positive impact on health and Chennai city generates approximately 16% food waste approximately 640 per day. Plant Bottle: up to 30% plant based 100% are recyclable bottle and he added that related to Case study of coca cola, Fossil based acid 8 carbon atoms and 68.75% it is an biobased glycol 2 carbon atoms 31.25% by mass, weight of plant biomass 31.25%.

Applications of Bio plastics: In addition to the above the guest added the applications of Bio plastics, they are mainly used in packing of food substances, cosmetics, soft drinks, dress materials.

Finally he concluded that bio plastics are mainly used in the areas of

- Biobased and Biodegradable Plastics are effective alternatives to conventional Plastics
- Carbon footprint reduction and effective end of life are drivers for adoption
- Applications exist in all Industries ranging from Textiles, Leather, Automotives, Electronics, Appliances, to name a few
- These new materials contribute to a “Greener Supply Chain”

The guest lecture ended with interaction with students and faculties and vote of thanks by Dr. G.Karthigadevi, Assistant Professor, Biotechnology.

