**Formulation of detergents using a sustainable approach**

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**Abstract: Short description of the presentation topic about 250 to 600 words.**

World focused on climate change has helped shift the focus of scientific community towards green chemistry. One field that is currently gaining traction is the production and use of biodegradable polymers and their application. Polymers are extensively used as base for detergent synthesis. These polymers are mostly derived from non-renewable petroleum sources. Demand for laundry detergent has increased as the population has grown and washing machines have become more user-friendly. The market is expected to grow at 4.1% rate in the coming year. R&D for this sector was neglected till the recent year and has just started gaining momentum. There is need for extensive R&D on synthesis of polymer as well as detergent formulations. Green process is need of time. Keeping this in view, the biodegradable polymer are the next generation and newly emerging field in green materials which can replace petroleum based polymer used in detergent. Still synthetic and natural biopolymers are synthesized using petroleum resource. To reduce use of non-renewable petroleum resource, we proposed synthesis of biodegradable polymer based on renewable, agriculture based material such as starch and dextrin and its utilization in the formulation of liquid as well as powder detergent. This work also focus on characterization of the polymer and detergent prepared.

**Biography of Presenter about 100 words:**

Dr. Jeevan R. Dontulwar hails from central region of India, city Nagpur of state Maharashtra. After completing his MS from Nagpur University, he completed PhD on the topic “Studies in Novel Eco Friendly Polymers” in 2007 from VNIT, Nagpur, India. He is currently working as Principal at Shri Mathuradas Mohota College of Science, Nagpur, India. Recently under his administration, the institute was NAAC re-accredited as A+. With the teaching experience of 22 years, he is recognized as Ph.D. supervisor. 3 students has completed PhD under his guidance. He has published more than 30 research article in international and national journal.

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* **Please to attach a recent high-resolution photograph of the presenting author.**

