



# CIPD Annual Report FY18

The Center has been established to develop capabilities in Product Innovation and Development for students, faculty and start-ups within KLE Technological University.

The Mission: To be a premium product innovation and development center in India by 2020 within the academic arena

One small step towards achieving our mission this year was to address a challenging social cause of sugarcane biomass burning and create a win-win situation for farmers and society as a whole.

BEACON: Biomass Energy And CONservation (BEACON) is an strategic initiative deployed by CIPD to utilise the biomass to generate energy, and improve livelihoods in rural India

This Initiative achieved the following goals:

- 1. REDUCE ENVIRONMENTAL IMPACT BY NOT BURNING SUGARCANE BIOMASS
- 2. IMPROVE RURAL EMPLOYMENT
- 3. EXTRA INCOME FOR FARMERS
- 4. SUSTAINABLE BUSINESS MODEL FOR ENTREPRENUERS AND STAKEHOLDERS

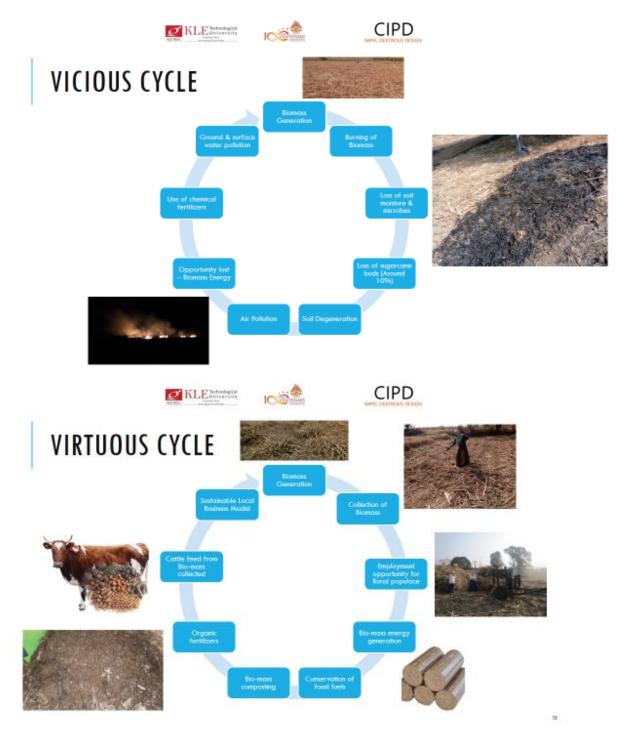
This endeavor was first of its type in terms of collaboration between educational institute (KLE Technological University), Industry (EID Parry) and NGO (Cherysh Foundation).

The business model is adopted by 4 entrepreneurs in North Karnataka and CIPD has introduced two design patented products to enable the biomass energy conversion process.

This unique project has converted a vicious cycle of sugarcane biomass burning to a virtuous cycle by providing value to the sugarcane biomass











## Upcoming products and solutions

#### **Smart Campus**

We aim to establish KLE Tech. Univ. SMART CAMPUS a microcosm of smart city, enhancing in-campus experiences, thus becoming an iconic world-class smart campus. With 'Smart' being associated from large cities to the hand-held devices, campuses are not far away from being linked to it. KLE Tech, like cities, has welcomed with open hands the novel technologies and data-based solutions to improve the environment and create healthier spaces in the campus. The context and idea of "smart" is indeed to provide a reliable eco-system where faculties and students are provided with consistent good quality services anytime and anywhere in the campus. The basic needs like water, electricity and internet

### Vision – A system to aid visually impaired

We are developing a system to aid visually impaired: The system consists of a wearable spectacle that facilitates a powerful depth camera capable of capturing 3D objects and heat signatures. A backpack that facilitates the necessary computing power. The information of the obstacle is given through audio messages since hearing is one of the primary senses after sight. The system also aims to send GPS coordinates of the visually impaired person to the smart-phone of the person of his or her choice, this is done by a press of the panic button on the system.

### Waste Management

Waste management research – in collaboration with HDMC and environmental engineering department Developed bio-waste, e-waste and refuse derived fuel (RDF) based business models.