

QUARTERLY NEWSLETER CRTDH ON AFFORDABLE HEALTHCARE, IT KHARAGPUR

Prof. Suman Chakraborty (suman@mech.iitkgp.ac.in), WhatsApp: +91–9831402939 http://www.crtdh.iitkgp.ac.in raining for fabricating

Mission and Vision

Established in 2019, the CRTDH at IIT Kharagpur has emerged as a beacon for MSMEs, startups, and entrepreneurs in the healthcare sector. With its array of programs and state-of-the-art facilities, the center provides holistic support encompassing R&D, manufacturing capabilities, and licensing assistance. Over four years, CRTDH has not only developed advanced laboratories and manufacturing plants but has also nurtured a dynamic Industry-Academia collaboration space. The center is equipped with cutting-edge, often in-house developed technologies, and prioritizes both affordability and accessibility, enabling entities to leverage its resources effectively, bolstered by robust support and mentorship. CRTDH's efforts have been instrumental in strengthening the MSME sector, fostering an inclusive ecosystem for growth and technological innovation in healthcare. This paradigm appears to be the future of democratizing public health management, with a concomitant rejuvenation of the rural livelihood by boosting up their employment opportunities via adopting an ecosystem approach at the same time where there is no distinction between the rich and the poor.

MSME engagement fostering 'Make in India' initiative

CRTDH has incubated several MSMEs and startups for transferring the technologies to the market and developing commercial prototypes of the devices. MSMEs are trained in technological know-how and are supported to acquire all regulatory licensing and validation of such devices. Several seminars, training programs and webinars are conducted every year to facilitate their RnD work for mass manufacturing processes

Facilities

- Pilot plant for manufacturing for paper-based diagnostic kits
- COVIRAP manufacturingunit
- COVIRAP kit preparation unit
- Data Science R&D unit
- Device prototype fabrication unit
- Lateral flow strip manufacturing unit
- Bio-Safety labs (L2)
- Rapid prototyping unit
- Microfluidic cell culture and analysis unit
- Blood sample processing and analytics
- Mobile healthcare Launch

Key Benefits to MSMEs

- Infrastructure and space in a scientific atmosphere
- Intellectual and technical inputs to MSME for
- industrial R&D
- Training and consultancy
- Co-development of products and processes with scientists
- Submission of joint proposals
- Field Trials and Clinical Validation support IP filing and certification
- Awareness programme, diagnostic camp

Socio-economic implications and self-sustenance:

The various initiatives under CRTDH have thus promised to create a variety of new jobs and self-employment opportunities locally, thereby reducing the need for mass migration of the population to centralized hotspots for machinery manufacturing, consumables and pharmaceutics, software, information systems, and analytics etc. CRTDH not only developed several healthcare technologies but as a part of the activities, several health products including sanitizers, face masks etc. were also developed to strengthen the revenue streams of e-health clinics at ruralsettings.









healthcare utilities and working on primary healthcare interface

Income generation through entrepreneurship among certified rural women healt workers at 8 eHealth clinics

Partnership firms formed as micro enterprise; to be scaled up to a formal enterprise, the first through



eHealth Clinics and Diagnostic center CRTDH does not only focus on RnD and lab-scale prototyping but also provides diagnostic technologies to the last-mile population with implementing partners from the industry. CRTDH organized several health camps, validation studies, and awareness programs in the e-health clinics and also about to

start a diagnostic centre with the cutting-edge technologies for the extreme point-of-care.





to several companies and organizations.

transferred to several MSMEs.

From Lab to the Field – Towards Good Health and Well Being for All

Resistant 🗢 🗢 🗢 📿 Susceptible

