ROBOT AS A
SOCIAL STATEMENT

CHIEF MINISTER PINARAYI VIJAYAN HANDING OVER THE MoU DOCUMENT

Countless number of people have died while cleaning manholes and sewers all over the country. Absence of livelihood had invariably forced people to continue doing such 'nasty' jobs without any protective mechanism. However, an ingenious technology developed by a group of engineering graduates from Thiruvananthapuram is poised to erase the shameful practice from existence.

It was the team behind GENROBOTICS, a startup focusing on socially-relevant issues, which gave shape to 'Bandicoot', a robot that looks like a giant spider. The team members are Vimal Govind, Rashid, Nikhil N P and Arun George who passed out of MES College of Engineering, Kuttippuram. GENROBOTICS even signed a memorandum of understanding (MoU) with the Kerala Government on January 11 on the basis of which the State Government will fund the development of second stage of the robotic technology to help Kerala Water Authority (KWA) unclog the sewers of the Capital City's drainage system.

The four took help from the Innovation Entrepreneurship Development Centre (IEDC) of Kerala

Startup Mission (KSUM) for setting up their company in 2016. "After coming under KSUM, we zeroed in on the social issue of manual scavenging and then decided to make a robot that could replace humans for unclogging and cleaning sewers," says Arun George, administrative officer at GENROBOTICS. The team, which currently has eight members, approached KWA through KSUM to study the data pertaining to the sewerage system before going ahead with designing 'Bandicoot.' The final design and prototype of the sewer cleaning robot was developed after conducting surveys using the data

provided by KWA. Innovation wing of KWA, Kerala Water Authority Innovation Zone (KWIZ), has agreed to fund 'Bandicoot' as its pilot project.

MANHOLES TO 'ROBO-HOLES'

The vision of GENROBOTICS behind 'Bandicoot' is to convert manholes to 'robo-holes.' With the introduction of 'Bandicoot', the firm intends to make cleaning of underground drainage system the job of mechanised robots and not humans. "We dream of a future when manholes will be called 'robo-holes,'" says Arun.

HOW DOES 'BANDICOOT' WORK?

This human-controlled robot is designed to do everything from lifting the heavy steel lids of manhole to descending into the pit and unclogging the sewers. The robot is designed to identify blockages in standard sewer systems and remove them with the efficiency of a human worker. It can also handle high-pressure water hoses which are currently operated by human workers to flush out clogs inside sewers. 'Bandicoot', which is capable for shifting shape, will be controlled from the ground above the sewerage pit through a user interface.

'Bandicoot' is designed to withstand the harsh conditions inside sewer cavities. The engineers behind 'Bandicoot' hope that they can teach the present workers how to manoeuvre and operate it, thereby upholding yet another social commitment.

FAVOURABLE ECOSYSTEM FOR
STARTUPS IN KERALA

Although a startup ecosystem existed in India since the inception years of indigenous IT giants like Infosys and TCS in the early 80s, the true potential of start-up economy remained unexplored till the success of e-commerce platform Filpkart in 2007. It did not take a long time for industrious youngsters in Kerala to catch up in startup entrepreneurship. According to the government technology promoter Kerala Startup Mission (KSUM), two firms registered as startups in 2009. Over the years, the number of startups which have registered in the State has only multiplied. In 2015, 213 technology startups newly registered – more than 100 times compared to 2009. At present, according to a study conducted by KSUM, there are more than 757 technology startups in the State.

Most number (51.1 per cent) of new startups was recorded in soft-

DR. SAJI GOPINATH, CEO, KSUM

ware development sector. However, in terms of other technology startups, health (7.79 per cent), retail (7.27 per cent), education technology (6.87 per cent), hardware (5.02 per cent), auto (2.91 per cent), agro (3.04 per cent) and fintech (3.96 per cent) also have fair shares in Kerala's startup ecosystem.

On the other hand, sectors like gaming (0.79 per cent), energy (1.72 per cent), advertising (2.77 percent) and media (1.85 per cent)

have the least number of startups. Speaking about the distribution of fresh startup enterprises across the State, Ernakulam district tops the list with 414. Meanwhile, the State capital is far behind with only 134. Malappuram with 59 and Thrissur with 40 hold the third and fourth positions. While there is no available data from Alappuzha district, Kasargod and Idukki have two and four startups respectively.

"Targeting the scaleup startups, KSUM has introduced a scheme to accommodate them in the facilities at Technopark, Infopark and Technology Innovation Zone in the State. KSUM has earmarked an area of approximately 46,000 sq.ft. for the scheme. Scaleup startups which are incubated, are allotted this space with subsidy. We have been assigned to extend support to the agencies in accordance with the IT policy," said Dr. Saji Gopinath, CEO, KSUM.

SCHRODERS WINS EUROPEAN SOFTWARE
TESTING AWARD OF THE YEAR

Schroders, a global investment management firm based in London, recently won the 'European Software Testing Award of the Year' and 'Prodapt Testing Management Team of the Year' Award. UST Global, a leading digital technology services company, is a strategic testing partner of Schroders. The European Software Testing Awards is a unique platform that celebrates the testing success stories across Europe.

As the awardee of 'The European Software Testing Award', Schroders has been recognised for excelling in all the areas and surpassing every other individual, project or organisation within the industry.

The 'Prodapt Testing Management Team of the Year' Award emphasises the success of the transformation programme that Schroders' Global QA Practice team undertook back in 2016 with the objective of making technology agile, economical, robust and resilient to market disruptors. The transformation is focused on implementing Scaled Agile Framework across the enterprise. UST Global has played a key role in Schroders' testing transformation journey.

Arun Narayanan, COO, UST Global, lauded the Schroders and UST teams for winning the awards. "We are proud to be the strategic testing partner of Schroders, he added.

IIITM-K FACULTY GETS
IBM'S COVETED AWARD

International Business Machines Corporation (IBM) has conferred the IBM Shared University Research Award carrying over Rs. two million on Dr. R Jaishanker R Nair, Associate Professor and Coordinator (Ecological Informatics), IIITM-K. The purse forming part of the honour will be used to integrate IBM's cloud platform (BlueMix) to study crop production. The proposed study will test whether crop yield can be predicted using some models integrated with IBM BlueMix. Whilst this is now possible in standalone machines, a cloud mounted model is innovation in the field.

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