

ELECTRICAL MIRROR

An Outlook of The Electrical & Power Industry

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REPORT ON INDIA'S DIESEL GENSET MARKETS, 2020-2030

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T & M INSTRUMENTS: GLOBAL INDUSTRY TRENDS, SHARE, SIZE, GROWTH, OPPORTUNITY & FORECAST 2021-2026

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VJTI TECHNOLOGY BUSINESS INCUBATOR



HOSTED AT
VEERMATA JIJABAI TECHNOLOGICAL INSTITUTE (VJTI)

SUPPORTED BY
DST-NSTEDB (GOI) UNDER NIDHI-TBI SCHEME

FOCUS AREAS



ENERGY



CLEANTECH



IoT



AI/ML



ELECTRIC VEHICLES



CYBER SECURITY

INCUBATION OFFERINGS



LAB INFRASTRUCTURE



INVESTOR CONNECT



LEGAL ASSISTANCE



MENTOR CONNECT



TRAINING & WORKSHOPS



MARKETING ADVISORY

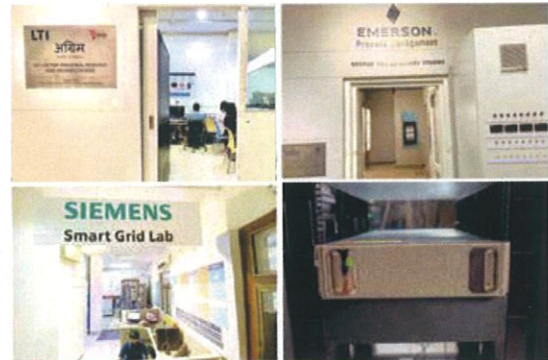


FINANCIAL ADVISORY



HIRING & INTERNS

FEW STARTUPS AT VJTI-TBI



ABOUT US

VJTI Technology Business Incubator was established at the prestigious Veermata Jijabai Technological Institute, in 2017 for supporting startups and entrepreneurs working in the areas of energy, clean-tech, AI/ML, IoT, EV and cyber security.

It is funded by NIDHI-TBI scheme and supported by LTI under the Avishkar project of One-Step CSR.

Currently VJTI-TBI is supporting **27 Startups** working in Deep Tech Areas.

VISION

To be a world class Technology Business Incubator that will create a credible cluster of sustainable technology based businesses that will create a social and economic impact on the region and the nation as a whole.

MISSION

~ To nurture and support start-ups focusing on the thematic areas.

~ To leverage on the scientific, industrial and technological competencies of the region to create scalable and sustainable businesses.

~ To enable start-ups have access to high quality technical assistance and mentorship.

~ To provide training infrastructure for start-ups to fill existing gaps in their current knowledge set-up.

~ To collaborate and create sustainable models of engagement with government, academia, corporate and industries, both at a national and international level.

POWER SYSTEM STIMULATION

~ SIGUARD and PSSE platforms to assess transmission systems stability and security and to analyse and simulate high performance power transmission systems.
~ MPLS/IP, WAMS, RTDS, Microgrid, Testbed.

AUTOMATION

~ DeltaV DCS platform used to automate industrial operations.
~ PLC (Siemens, Rockwell Automation, Schnieder, ABB, Mitsubishi, HIMA).
~ RTU (Kalkitech, Schneider, Siemens).
~ iVisionmax platform, the latest SCADA solution designed to monitor and control processes, equipment and resources of an enterprise in real time.

AI

~ AI-enabled NVIDIA GPU-accelerated DGX-1 AI Supercomputer powered by eight NVIDIA Tesla V100 GPU accelerators, NVIDIA NVLink, NVIDIA Jetson and new Tensor Core architecture and a complete Deep Learning Stack.

OUR PARTNERS

CSR PARTNERS



TECHNOLOGY PARTNERS



ECOSYSTEM PARTNERS



INNOVATION PARTNERS



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STARTUP INNOVATIONS IN EV SECTOR: CASE STUDIES FROM VJTI-TBI



GUEST ARTICLE

New-age entrepreneurs are entering the EV market with new business models and introducing innovative technologies to automate agri-produce harvesting, promoting personal mobility and introduce last-mile micro-mobility products, etc. Dr. Faruk Kazi, Principal Investigator at VJTI-TBI, talks about VJTI's incubator set-up and how it is successfully supporting promising startups in the electric domain.

According to a market report, India has sold more than one million electric vehicles in the last two years. According to Mordor Intelligence, the Indian EV market was valued at \$5 billion in 2020 and is expected to reach \$47 billion by 2026 registering a CAGR of above 44 percent during the forecast period (2021-2026). However, the EV market in India is still considered to be in a nascent stage but is expected to grow at a much faster rate due to various government initiatives, including the implementation of the FAMEII Scheme and promotion of EV products and associated industries. In recent times, a significant contribution to this sector has come from not only traditional manufacturers but also startups.

Considering these encouraging trends, the prestigious Veermata Jijabai Technological Institute in Mumbai set up the Technology Business Incubator (VJTI-TBI), to support startups focusing on various aspects of EVs including technology, innovation, and business models. Set up in 2017 with the support of the Department of Science and Technology, government of India, under the NIDHI-TBI Scheme, The VJTI-TBI Board of Governors comprises of the following members Dr. Dhiren R Patel (Director, VJTI), Dr. Naveen Vasistha (Scientist F

and Member, NSTEDB Secretariat, DST), Shri Vikas Chandra Rastogi (Principal Secretary, DHTE, Govt. of Maharashtra) who have been instrumental in the successful implementation of the VJTI-TBI. It was created as a platform for supporting ambitious entrepreneurs and startups in the country focusing on thematic areas including energy, cleantech, EV, IoT, AI/ML and cybersecurity of critical infrastructure. The incubated startups are provided with co-working space, access to state-of-the-art lab infrastructure (SCADA & Automation Lab, Power Electronics Lab, and AI/ML and Embedded Systems Lab) equipped to test products and prototypes in the domains mentioned earlier. This incubator is already supporting around 30 startups, and was recently named 'Smart Incubator of the Year' at ISGF Innovations Awards 2020. In addition, VJTI-TBI provides advisory services in business management, IPR, finance, and accounting, legal and technical domains through collaborations with third-party service providers and industry associations. Incubated startups also get access to free tools including AWS credits, ZOHO platform, Zendesk CRM, SOLIDWORKS licenses, MatLab and Simulink licenses, and MyOperator cloud telephony credits.

VJTI-TBI has also partnered with several corporates (Larsen and Toubro Infotech (LTI), Emerson, NVIDIA, Siemens, and CISCO) and industry bodies (India Electrical and Electronics Manufacturers Association, Cyber Peace Foundation, The Institute of Engineering and Technology, India Energy Storage Alliance, and India Smart Grid Forum) to support the startups through mentoring, funding, and infrastructure


(including lab infrastructure). Startups are provided with seed support through CSR partnership with LTI, ITD Cementation India, SIDBI Capital Ventures, and Technoalent Engineering India. Following are some of the promising EV startups incubated at VJTI-TBI. Mag9 Energies Pvt. Ltd. Sunit Shah, Nikunj Shah, and Vikas Gupta co-founded Mag9 Energies (previously Magnes Motors India) with the sole purpose of providing micro-mobility services in the EV segment. The Team under the Magnes Motors brand was one of the first to offer an electric go-kart for the amusement parks in the country. Later, they also focused on developing a dirt bike for the amateur sports industry and have already developed a prototype of an electric delivery 2-wheeler for the logistics sector. Mag9 Energies has generated revenues of `1 crore from the go-kart product line and has also introduced an e-bike recently. These e-bikes will soon be made available on the VJTI campus as a part of their gogreen initiative. Mag9 Energies have been selected as finalists in STPI Motion and other reputed incubation programs in the country focusing on EV development. PMV Electric Pvt. Ltd. PMV (personal mobility vehicles), is currently developing its flagship product, EaS-E, an electric smart car for everyday use with a focus on sustainable personal mobility; to address the global challenges of pollution, climate change, urban congestion and parking issues. The two-seater fully electric smart microcar will have some top-of-the line benefits like cruise control, a feet-free driving mode in traffic, remote parking assist, over-the-air updates besides the regular air conditioner, music system, navigation, safety seat belts, etc.

JyoSH AI Solutions Pvt. Ltd. JyoSH Agriculture Integrated Robot is an EV-enabled and AI ML technology-based smart, precision farming solution for entire automation cotton cultivation, which includes weed management, crop health monitoring, and cotton harvesting. It improves the productivity and profitability of cotton farmers by saving labor and chemical costs. JyoSH AI robot is also designed to automate the cultivation of other fruits and vegetables as well. The co-founders, Dr. Sharadchandra Lohokare and Jitendra Ahirrao, have a combined experience of over 50 years in mechatronics, product development, AI/ML, and program management. JyoSH AI Solutions are the winners of the Agri India Hackathon held in Feb 2021 under the 'Farm Mechanization' category. They have also been selected for NIDHI PRAYAS funding and by NASSCOM for DTC (Deep Technology Club). Mag9 Energies, PMV Along with Electric, and Jyosh AI Solutions, VJTI-TBI expects to

support more EV-based startups in the future cohorts. With the right support of lab infrastructure, training, mentoring, and fundraising, the incubated startups can definitely aim to take their tech-based product/ service to the next level.

VJTI-TBI has more than 25 Startups currently under its umbrella in the domains of Electric Vehicles, Cleantech, Agritech, AI/ML etc. In the process for the next round of Startup onboarding the Business Pitch event was conducted from 7th March to 10th March! More than 20 Startups presented their pitch to the Panel of Jury Members. Of these 20 VJTI-TBI will be selecting Top 10 Startups to be incubated in the year 2022-23 in the domains of Deep Tech, Computer Security, AI, ML and Cleantech.

Some of the other Startups incubated under VJTI-TBI include Blockeye Technologies (They are experts in the Design, development and pilot deployment of Blockchain based applications in the domains of Governance, Banking & Finance and Cyber Security.), Aidgo technologies (They are generating awareness for the adoption of technologically advanced assistive devices. They make affordable electric wheelchairs and the best custom lithium battery packs for the electric vehicle industry to accelerate the transition to a cleaner economy. The zeal for implementing technology for the upliftment of society brought the co-founders Dr Chetan Kamble and Dhanshree Thulkar together. Being an entrepreneur and a researcher, this venture helps us serve a humanitarian need and satisfy our scientific quest, FarmChain (FarmChain is a technology based start-up. They are developing solutions for a complex supply chain of farm products and enabling small farmers to compete in various market segments by providing them a platform for creating transparency while directly selling to customers.), Coming from a farming background Bala Surya and Ajith Kannan, cofounders of Sand Bird took this as their lifetime goal to ease the efforts of low-income farmers with clean and smart farming operations, Monter Technologies is a startup passionate about solving climate change problem through its innovative cost effective and patented products, PMV Electric is a Mumbai based personal mobility EV startup, developing India's First indigenously developed smart microcar.

VJTI-TBI is providing a great impetus to the Starup Ecosystem through the support from lab infrastructure, training, mentoring, and fundraising. Thus the Incubated start-ups can definitely aim to take their tech-based product or service to the next level with the help and support from VJTI-TBI. 

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