

12 companies selected for the prestigious National Technology Awards 2020 for commercialization of innovative indigenous technologies

A total of 12 companies have been selected for the National Technology Awards 2020 for commercialization of successful commercialization of innovative indigenous technologies.

They have been selected under three categories --indigenous technologies, MSME, and startups. Every year, for furtherance of its mandate, TDB seeks applications for prestigious National awards for commercialization of technologies under these three categories. These awards conferred to various industries provides a platform of recognition to Indian industries and their technology provider, who have worked as a team, to bring innovation to the market and contributed to the vision of “Aatma Nirbhar Bharat”.

The awards were given by the Technology Development Board (TDB), a statutory body of Government of India functioning under Department of Science of Technology for the year 2019-20. The winners were selected from a total 128 applications after thorough examination by eminent technologists and a stringent two-tier evaluation process.

The Technology Development Board is a statutory body of Government of India functioning under Department of Science of Technology which provides financial assistance to companies working for commercialization of indigenous technologies and adaptation of imported technologies for domestic applications. TDB was established in 1996 with a novel aim of providing financial assistance to Indian companies for commercialization of innovative indigenous technologies.

Since its inception, TDB has funded more than 300 companies for commercialization of technologies. The notable amongst the companies supported by TDB over the years are Bharat Biotech International Limited, Shantha Biotechnics Biocon India Limited, Reva Electric Car Company Tata Motors (for Indica), Zen Technologies VEM Technologies Su Kam Power System Limited, Sahajanand Laser Technology Limited, and many more.

Annexure:-

The details of National Awards for the year 2019-20 under following three categories are as follows: -

Category 1: NATIONAL AWARD FOR SUCCESSFUL COMMERCIALIZATION OF INDIGENOUS TECHNOLOGY

This award is given to an industrial concern which has successfully developed & commercialized an indigenous technology. In case, the technology developer / provider and the company commercializing the technology are two different organizations, each is eligible for award of ₹25 Lakh and a trophy.

This year following two companies have been selected for this award: -

(i) **Company:** M/s L&T Special Steels and Heavy Forgings Private Limited, Surat

Technology Provider: Nuclear Power Corporation of India Limited (NPCIL), Mumbai



NATIONAL AWARD - M/s L&T Special Steels and Heavy Forgings Private Limited, Surat

Nuclear power plants are critical for India's energy security. The Steam Generators, Bleed Condensers and other subsystems of nuclear plants need critical heavy forgings made with extreme precision and outstanding quality. These specialized forgings were mostly imported for nearly last six decades, incurring precious foreign exchequer and denying opportunity to develop indigenous production ecosystem.

The Department of Atomic Energy envisaged a joint venture between Larsen & Toubro, the EPC, Hi-Tech manufacturing and services conglomerate and Nuclear Power Corporation of India (NPCIL), the sole nuclear-power producer of India, to indigenously produce such heavy forgings. L&T Special Steels and Heavy Forgings (LTSSHF) has successfully developed critical forgings of 700 MWe after setting up the facility which has a melt capacity of 125 tons and an open die press that can exert force of 9000-10000 tons. NPCIL provided critical guidance for development of this indigenous capability, taking India to the league of the global major forging producers of heavy and complex nuclear forgings.

(ii)**Company:** M/s Vinati Organics Limited, Mumbai

Technology Provider: CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad



NATIONAL AWARD - M/s Vinati Organics Limited., Mumbai

Vinati Organics Limited(VOL) was established in 1989 and is a specialty chemical company producing aromatics, monomers, polymers and other specialty products. VOL has been closely associated with CSIR institutes like National Chemical Laboratories (NCL), Indian Institute of Chemical

Technology, Hyderabad (IICT), for developing new process for commercially manufacturing specialty chemicals.

The company worked with CSIR-IICT which developed the technology for making p-tert Butyl Toluene-PTBT (alkylation of Toluene using Isobutylene) followed by oxidation of PTBT to p-tert butyl Benzoic Acid (PTBBA) and licensed the same to VOL. The company with help of IICT, its own R&D /QC team and Detail Engineering companies commercialized the technology by erecting the plant in MIDC Lote near Chiplun on Mumbai Goa Highway in Maharashtra

PTBBA is used in manufacturing of its methyl ester (also being made by VOL) which finds use in manufacturing of Avobenzone. PTBBA also has uses in manufacturing of Alkyd resins and PVC Stabilizers. Prior to VOL commenced manufacturing of PTBBA, it was being imported from China. Currently VOL is catering to local demand of PTBBA as well as exporting to various customers in US. Europe. Korea.

Category 2: NATIONAL AWARD FOR MSMES

The Award, of Rs. 15 lakhs each in this category is given to selected MSME's that has successfully commercialized the product based on indigenous technology. This year following four companies have been selected for this award: -

(i) **M/s AKS Information Technology Services Private Limited, Noida :-**
The company provides services in the domain of Information Security, comprising auditing, consultancy, compliance, Network Security, Application Security, Cyber Forensic, IT Security Training and also develop Cyber Security Products. The company has been at the vanguard in rendering the top grade Cyber security services and products for more than 14 years. The company has developed Integrated Anti DDoS & Web Application Firewall which provides comprehensive security from Network to Application level layer. This product ensures 360-degree protection to organizations. HaltDos uses machine learning to identify real-time threats from HTTP requests that do not match any known attack vector.

(ii) **M/s SVP Laser Technologies Private Limited, Chennai: -**

The company has indigenously developed mission critical Digital Manufacturing technologies like MultiCNC™ CNC controller, AutoCAM2D CAM software, and various CNC controlled machines for applications like Jewellery manufacturing, PCB, Furniture, Foam fabrication etc. with several patented technologies. The products have been exported to countries like Canada, USA, UK, UAE, Oman, Philippines etc.

(iii) M/s Kan Biosys Private Limited, Pune: -

The company has developed a novel aerobic process for *in situ* incorporation of rice stubble using Speed Kompost™. The product can be the Indian solution to fight climate change caused by global stubble burning and best method of choice for global carbon sequestration.

(iv) M/s AlgalR NutraPharms Private Limited, Thanjavur:-

AlgalR has developed a Green Technology to produce Docosahexaenoic acid (DHA), an important omega-3 fatty acid, from microalgae. DHA extracted from microalgae is 100% Vegan and is currently marketed in the name of “AlgalR’s DHA”. Algal DHA can prevent cardiovascular diseases and brain stroke. It improves brain functions among young children, and it is essential for fetal brain development in pregnant women and reproductive health of adults. AlgalR holds the demand up to 2000 MT Algal DHA per annum from India, the US, Europe, Korea, France, and Brazil. Upon further scaling-up of this product will eventually reduce our import of 500 million USD and increase the revenue generation for about 500 Cr per annum.

Category 3: NATIONAL AWARD FOR TECHNOLOGY START-UPS

This award is given to a technology start-up for promising new technology with potential for commercialization. The award in addition to the trophy includes a cash award of ₹15 Lakh. This year six start-ups have been selected for these awards. These are as follows: -

(i) M/s RAR Engineering Private Limited, Delhi: -

The company is in the field of designing, developing and manufacturing new generation active industrial shock absorbers and recoil buffers which can automatically adjust its damping characteristics as per the payload parameters, give real-time feedback information to weapon controller, its working conditions and generate warning alarms in case of preventive

maintenance, failure or abnormal recoil characteristic. Once active recoil dampers is successfully developed and implemented into the weapon system, this technology will be further enhanced to actively isolate the vibrations produced during firing of weapon to improve its target accuracy.

(ii) M/s Fibroheal Wound care Private Limited, Bangalore: -

Fibroheal Wound care worked exclusively on “Silk Proteins” as “Biomaterial for Wound Healing” and utilizes cut cocoons and other by-products of sericulture industry for value addition. The healing products are used for acute/chronic wounds or non/slow healing or difficult to heal wounds.

(iii) M/s Althion Tech Innovations Private Limited., Hyderabad: -

Althion Tech Innovations has developed the ultra-pure water units based on novel RO membrane technology licensed from CSIR-Indian Institute of Chemical Technology, Hyderabad. Althion’s kidney dialysis water units produce pure water and meets AAMI standards. The membrane configuration removes the need for a resin softener, thereby removing the need for salt, and saving water and electricity up to 25%. Althion type-2 and type-1 units are more affordable to purchase and maintenance is very less as compared to imported products.

(iv) M/s KBCols Sciences Private Limited, Pune

KBCols Sciences focuses on microbes; Microbes produce colors as a response and defensive mechanism in order to protect themselves from the environment. This property of theirs is being explored/exploited by KBCols for over producing pigments in bioreactors using inexpensive waste raw materials. The Company developed customized recipes for using its natural colors (products) in sectors like textiles, home care, foods, cosmetics etc.

(v) M/s Shira MedTech Private Limited, Ahmedabad

Shira MedTech has developed Shira Clamp, which attempts to make blood vessel surgeries easier and potentially prevent 100,000 amputations in India every year. With Shira Clamp, surgeons with less experience can attempt a complex blood vessel surgery with lesser chances of error and reduced need of assistance. Shira Clamp is now being used in surgeries across 10 countries in the world.

(vi) **M/s Newndra Innovations Private Limited, Jaipur**

Newndra Innovations has developed exoskeleton called JaipurBelt™. JaipurBelt™ supports by off-loading the spine and waist up to a configured, variable limit without restricting body movements. It has a patented single point and compact torque adjustment mechanism. This allows the user to adjust the load in a remarkably simple and user-friendly way without tensioning the springs. This exoskeleton can avoid surgeries and drudgery and ensure a safer and faster recovery.