

No. DSIR/MS/2018/08
Government of India
Ministry of Science & Technology
Department of Scientific & Industrial Research
MONTHLY SUMMARY FOR THE CABINET
(For the month of **August 2018**)
(Part-I Unclassified)

Ministry / Department : Department of Scientific and Industrial Research (DSIR)

MAJOR ACHIEVEMENTS DURING THE MONTH OF AUGUST, 2018:

DEPARTMENTAL ACTIVITIES

1. Industrial R&D Promotion Programme

Recognition/ Registration and renewal of In-house R&D in Industry

- 17 in-house R&D units of industries were granted recognition as well as registration certificates.
- 51 in-house R&D units of industries were granted renewal of recognition and 50 were granted renewal of registration certificates.

Scientific and Industrial Research Organization (SIROs)

Recognition/ Registration and Renewal of SIROs

- 03 SIROs were granted recognition and 02 were granted registration certificates.
- 41 SIROs were granted renewal of recognition and 26 were granted renewal of registration certificates.

Public Funded Research Institution (PFRIs)

Registration and Renewal of PFRIs

- 10 PFRIs were granted renewal of registration.

Fiscal Incentives for Scientific Research

- 02 industries were approved for issuance of form 3 CM under Section 35(2AB) of IT Act under weighted tax deduction.
- 36 reports in form 3CL submitted to CCIT under Section 35(2AB) of IT Act for weighted tax deduction on industrial R&D involving a total amount of Rs.72164.19 Lakhs.

AUTONOMOUS BODY

1. Council of Scientific & Industrial Research (CSIR)

1.1 CSIR-IIP : Prepared biojet fuel for technological demonstration of country's First Biojet Fuel Flight

The Indian Flight Operator Spicejet, made a first test flight in the country between Dehradun and Delhi powered by a blend of 75% air turbine fuel

and 25% biojet fuel. CSIR-IIP, Dehradun has prepared about 400 kg of biojet fuel for this purpose. This fuel is made from vegetable oils, sugar, animal fats, waste biomass and can be used in existing engines without modification. The made-in-India bio jet fuel has secured all statutory clearances, including those from designated testing labs and Directorate General of Civil Aviation (DGCA). Biojet fuel has the potential to reduce fuel costs by 15-20%. The Hon'ble Minister for Road Transport and Highways, Shri Nitin Gadkari said, "A policy will soon be framed on bio jet fuel for aviation industry and placed before the Cabinet". Hon'ble Union Ministers Shri Suresh Prabhu, Dr. Harsh Vardhan, Shri Dharmendra Pradhan and Shri Jayant Sinha were also present during this historic occasion. India has now joined the small league of nations with the US and Australia to have flown a biofuel powered aircraft and the first biofuel flight happened successfully.

1.2 Hon'ble Vice President inaugurated CSIR-IICT Platinum Jubilee celebrations

The Hon'ble Vice President of India, Shri M. Venkaiah Naidu inaugurated the Platinum Jubilee Celebrations of CSIR-IICT, Hyderabad. He called upon scientific institutions to nurture talent and foster path-breaking innovations to transform the socio-economic landscape of the country. The Hon'ble Minister for Science & Technology, Earth Sciences and Environment, Forest & Climate Change, Dr. Harsh Vardhan and the Hon'ble Governor of Telangana, Shri E.S.L. Narasimhan were present during the occasion. The Vice President emphasized the need to hugely step up investments in R & D to promote the culture of innovation and discovery. He further said that reducing procedural bottlenecks, removing hierarchical barriers and resetting priorities is crucial and the leadership in scientific institutions should encourage bright young scientists to come up with new and unconventional ideas and projects.

1.3 Hon'ble Minister for S & T Visited CSIR-NAL

Dr. Harsh Vardhan, the Hon'ble Minister for Science and Technology visited CSIR-NAL, Bengaluru and inaugurated its design and integration facility for development of drones or Unmanned Aerial Vehicles (UAVs). He said that CSIR-NAL will develop UAVs for use in various sectors like in surveillance, agriculture, health, forests, mining and other civil sectors.

1.4 CSIR-IMTECH : Developed New Clot Buster Drug For Ischemic Stroke

CSIR-IMTECH, Chandigarh has developed a new clot buster, PEGylated Streptokinase-a Novel Biological Entity for the treatment of ischemic strokes. Ischemic stroke is a condition caused by a dysfunction in the supply of blood to the brain due to emboli, thrombus or atherosclerosis occurring in cerebral arteries PEGylated Streptokinase has an extended half-life so it remains in blood longer than the currently administered TPA (tissue plasminogen activator), which is crucial for a patient stroke. It has associated clot-specificity and reduced immuno-reactivity, so there is a reduced probability of bleeding over current treatment regimens of drugs for acute stroke.

1.5 CSIR-NAL and BEL : Designed Electronic Target System (ETS), a modern training aid meant to enhance the marksmanship of defence and paramilitary forces during live firing exercises on the field.

CSIR-NAL, Bengaluru has designed Electronic Target System (ETS), a technically superior and cost-effective solution for police, paramilitary and defence personnel looking at acquiring sharp shooting skills in small fire arms as well as honing efficiency in tactical field firing in association with BEL, Bengaluru.

1.6 CSIR-NAL : Bagged Rs. 100 crore contract from HAL

CSIR-NAL, Bengaluru has bagged Rs. 100 crore contract from HAL, Bengaluru for delivering critical composite air-frame components needed in the upcoming advanced version of the indigenous Tejas combat jets.

1.7 CSIR-NEIST : developing R&D wing of Arunachal Pradesh

Arunachal Pradesh has sought assistance from the CSIR-NEIST, Jorhat in developing the research & development (R&D) wing of Arunachal through intervention of scientific technology which is essential to convert bio-resources into bio enterprise for upliftment of rural economy of the state.

1.8 CSIR-CFTRI : Ready To Eat (RTE) Meals to Kerala & Karnataka Flood Victims

CSIR-CFTRI, Mysuru has flagged off a flood relief programme and has sent ready to eat (RTE) meals to the affected regions of Kerala and Karnataka. There were 6,000 meals for flood victims. The food items were shelf stable chapati with chutney and tomato curry, imli or tamarind poha, an instant upma mix, high protein biscuits, rusks, pickles, jams water bottles etc.

1.9 CSIR Intellectual Property

The Patent position for this month is given below:

Patents Filed		Patents Granted	
India	Abroad	India	Abroad
16	30	14	30

1.10 Honors & Awards

Dr. John Mondal, Scientist, CSIR-IICT, Hyderabad has received the Young Scientist Award-2018 from the National Academy of Sciences, India (NASI).

1.11 Significant Events

(a) Conferences, Workshops Organized

- (i) CSIR-NIO, Goa has organized: (i) an International two day workshop on India-ONR Arabian Sea Science workshop which focused on assessing the state of Arabian Sea science, identifying promising avenues for research, and building collaborations for future analyses and new projects; and (ii) A training programme titled 'Training in Ocean Research: Basics of

observations and Instrumentations' for scientists from Bangladesh Oceanographic Research Institute (BORI), Bangladesh.

- (ii) CSIR-IICT, Hyderabad as part of its platinum jubilee celebrations has organized three days International Conference on Sustainable Chemistry on Health, Environment and Materials (Su-Chem). The Institute also organized in collaboration with Research and Innovation Circle of Hyderabad on 'Cancer Conference and Innovation Challenge'.
- (iii) CSIR-NEERI, Nagpur has organized a business meet to strengthen the partnership with slaughterhouses and dairy industries for environmental protection.

(b) **Agreements/Memorandum of Understanding Signed**

- (i) Four CSIR laboratories namely, CSIR-AMPRI, Bhopal, CSIR-CMERI, Durgapur, CSIR-IMMT, Bhubaneswar and CSIR-NIO, Goa have signed MoU with IIT, Goa in different areas. IIT Goa will study a suitable waste treatment facility for Goa and beyond with CSIR-CMERI, area of ocean engineering and nonconventional energy with CSIR-NIO, research minerals processing and metallurgy with CSIR-IMMT and computer-aided design and manufacturing, electronics and telecommunications with CSIR-AMPRI.
- (ii) CSIR-CSIO, Chandigarh has collaborated with EOS (company is the global technology leader for industrial 3D printing of metals and polymers) to maximize potential of additive manufacturing for patient specific implants.
- (iii) CSIR-IMTECH, Chandigarh has signed an agreement with M/s Epygen Biotech, Mumbai to develop PEGylated Streptokinase for treatment of Ischemic Stroke.
- (iv) CSIR-IITR, Lucknow has signed a technology transfer technology (TOT) agreement with M/s SS Maser Technology Pvt. Ltd. for transfer of technology for the disinfection of drinking water based on the process of electrolysis.
- (v) CSIR-NAL has signed a Technical Collaboration Agreement (TCA) with Bharat Electronics Ltd (BEL) for the design and engineering, production and commercialization of an Electronic Target System (ETS), a modern training aid meant to enhance the marksmanship of defence and paramilitary forces during live firing exercises on the field.

2. Consultancy Development Centre (CDC)

- "Building Capacities for Consultancy Development & Knowledge Management with Partner Institution (KMPI)": Memorandum of Understanding has been signed between CDC and National Academy of Human Resource Development, New Delhi.

PUBLIC SECTOR ENTERPRISES

1. National Research Development Corporation (NRDC)

- NRDC has been assigned five technologies by IOCL-R&D, Faridabad viz. (i) A process for the removal of metals from vegetable oils & animal fats (ii) Multi utility solar led lighting device (iii) Novel catalyst composition for biodiesel production and a process for producing biodiesel and the product thereof (iv) A modified Giant Impedance (GMI) based sensing device for detection of carburisation in austenitic stainless steel (v) A catalyst composition for trans esterification of originally/naturally derived oils and fats to produce alkyl esters and process for preparing the same. NRDC has also licensed technologies on (i) Ocean Drifter Buoy with INSAT communication to M/s Astra Microwave Products limited (ii) Instant Ragi Muddemix to M/s Sri Herbal Products, Bangalore (iii) Non-Invasive Kit to detect Haemoglobin to M/s Azrax HealthCare Pvt Ltd, Midnapore.
- NRDC has collected a premia of Rs.13.25 Lakh from licensing of the technologies during August, 2018. NRDC has also collected a royalty of Rs. 16.85 Lakh during August, 2018 on account of commercialization of technologies assigned to NRDC by public funded research organizations and others.

2. Central Electronics Limited (CEL)

- Central Electronics Limited continued its activities in the area of solar photovoltaic systems, electronic gadgets for Railway and other electronic equipment/components etc. The company manufactured electronic components/systems/ SPV products worth Rs 1315.74 Lakhs and realized sale of such items worth Rs.1504.52 Lakhs during August, 2018.
