No. DSIR/MS/2018/07
Government of India
Ministry of Science & Technology
Department of Scientific & Industrial Research
MONTHLY SUMMARY FOR THE CABINET
(For the month of **July 2018**)
(Part-I Unclassified)

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

MAJOR ACHIEVEMENTS DURING THE MONTH OF JULY, 2018:

DEPARTMENTAL ACTIVITIES

1. Industrial R&D Promotion Programme

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

- 11 in-house R&D units of industries were granted recognition as well as registration certificates.
- 75 in-house R&D units of industries were granted renewal of recognition as well as renewal of registration certificates.

Scientific and Industrial Research Organization (SIROs)

Recognition/ Registration and Renewal of SIROs

- 07 SIROs were granted recognition and 04 were granted registration certificates.

Public Funded Research Institution (PFRIs)

Registration and Renewal of PFRIs

- 03 PFRI were granted renewal of registration.

Fiscal Incentives for Scientific Research

- 11 industries were approved for issuance of form 3 CM under Section 35(2AB) of IT Act under weighted tax deduction.
- 44 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.243223.30 Lakhs.

AUTONOMOUS BODY

1. Council of Scientific & Industrial Research (CSIR)

1.1 CSIR-CSMCRI : Developed a Process to Convert Distillery Waste to Fertilizer

CSIR-CSMCRI, Bhavnagar has developed a process to separate the main source of pollution-potash and bio-degradable organic matter- from distillery spent-wash. The technology employs a coagulation process to separate complex organic compounds from spent-wash. The process yields 10-tonnes of complex organics, 2-5 tonnes of potassium nitrate and 75,000-

80,000 litres of recycled water from every 100,000litres of spent wash.

1.2 CSIR-CMERI : Designed and Developed a 'Solar Lotus'

CSIR-CMERI, Durgapur has designed and developed a 'Solar Lotus' having a generation capacity of 3.6 KW which has been installed in Children Park of Durgapur, West Bengal. The in-built surveillance system of the 'Solar Lotus' is very effective for watching the activities in any place from a distance through video surveillance technology and high-resolution videos with inbuilt compression that will allow footage to be analyzed.

1.3 CSIR-CSIO : Artificial Intelligence (AI) Based Movement Detection System to Boost Border Security

CSIR-CSIO, Chandigarh has developed a technology which can differentiate human movement from that of vehicles and cattle to check terrorism, drug influx and ensure full-proof border security. The system is based on Artificial Intelligence (AI) – driven warning system. It generates an alarm and sends information via email and text message to the registered users.

1.4 CSIR Intellectual Property

The Patent position for this month is given below:

Patents Filed		**Patents Granted**	
India	Abroad	India	Abroad
8	15	17	29

1.5 Honors & Awards

(i) Dr. Navin Kumar Rastogi, CSIR-CFTRI, Mysuru has received the Fellowship of National Academy of Agriculture Science (NAAS).

(i) Dr. Chada Raji Reddy, CSIR-NPL, New Delhi has received Chemical Research Society of India CRSI-Bronze Medal in recognition of the contribution in research.

1.6 Significant Events

(a) Conferences, Workshops Organized

(i) CSIR-CFTRI, Mysuru has organized a symposium on 'Advances in Biological Research.'

(ii) CSIR-NEIST, Jorhat has organized three days seminar in collaboration with Assam Science Society, Jorhat and Material Research Society of India on Frontiers of Chemical Biology.

(iii) CSIR-NIO, Goa has jointly organized with Maritime Research Centre, Vijnana Bharati, Savitribai Phule Pune University and Goa University, a 6-week multi-disciplinary project-based internship programme on Underwater Domain Awareness (UDA) Summer School.

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

(i) CSIR has signed MoUs with South Korean National Research Council for Science & Technology to further accelerate future oriented cooperation in their respective sectors.

(ii) CSIR-CLRI, Chennai has signed an MoU with the National Industrial Research and Development Agency (NIRDA), Rwanda for collaboration in the areas of leather and allied sectors.

(iii) CSIR-CEERI, Pilani has signed an MoU with M/s Nvidia Corp to set up a Centre of Excellence to offer a complete design and implementation environment for the development of Artificial Intelligence (AI) based applications.

(iv) CSIR-NEIST, Jorhat has signed an MoU with Jorhat Engineering College for Research Academic Collaboration.

(v) CSIR-IMTECH, Chandigarh has signed an agreement with M/s Zydus Cadila, Ahmedabad to identify new drug candidates for the treatment of drug-resistant infections.

(vi) CSIR-IICT, Hyderabad has signed an MoU with Scient Institute of Pharmacy, Hyderabad to enhance high-quality research acumen through cooperation in the areas of analytical sciences, pharmacology and pre-clinical studies, medicinal chemistry and pharmaceutics.

(vii) CSIR-NCL, Pune has signed an MoU with the Automotive Research Association of India (ARAI) for collaborative research in the field of chemical material applications for future automotive applications.

(viii) CSIR-NIO, Goa has signed an MoU with IIT, Goa to collaborate in the research in Ocean Engineering, Marine Science & Technology, Deep Sea Mining, Unconventional Energy and Hydrothermal Energy.

(ix) CSIR-NPL, New Delhi has signed an MoU with Hindustan Petroleum Corporation Ltd.(HPCL) for indigenous development of Certified Reference Materials (CRMs).

(x) CSIR-4PI has signed an MoU with Vellore Institute of Technology on Cyber Security, Artificial Intelligence, Data Analytics, High-Performance Computing and data science.

2. Consultancy Development Centre (CDC)

- Consulting Ahead: Volume-12; Issue-1 : Disseminated to various categories of readers and subscribers.

PUBLIC SECTOR ENTERPRISES

1. National Research Development Corporation (NRDC)

- NRDC has been assigned three technologies by CSIR-IHBT, Palampur viz. (i) Developing L-Asparaginase with low glutaminase activity for therapeutic applications (ii) Technology for 4-substituted cyclohexane-1,3-dione Synthesis (iii) Technology for Preparation of Tea Wine. NRDC has also licensed technologies on (i) Wireless expandable Bathythermograph

conductivity temperature and depth profile system to M/s Azista Industries Private Limited (ii) Ocean Drifter Buoy with INSAT communication to M/s Azista Industries Private Limited (ii) Test kit for microbiological quality of drinking water to M/s H.S. Industries (iii) Ocean Drifter Buoy with INSAT communication to M/s Norinco Pvt. Ltd. (iv) Ghar Sodhan - a room disinfectant for disinfecting silkworm rearing house and appliances to M/s. Aspartika Biotech Private Limited (v) Manufacture of Potassium Humate from Lignite, Liquid Product of 2 to 4% concentration to M/s. Golden Opportunity.

- NRDC has collected a premia of Rs. 24.00 Lakh from licensing of the technologies during July, 2018. NRDC has also collected a royalty of Rs. 19.41 Lakh during July, 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 1141.21 Lakhs and realized sale of such items worth Rs.1157.51 Lakhs during July, 2018. Rolling stock / Railway board inaugurated 1st non-air conditioned coaches of passenger train retrofitted with flexible solar panels manufactured by CEL on 24th July, 2018.

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