

No. DSIR/MS/2018/04
Government of India
Ministry of Science & Technology
Department of Scientific & Industrial Research
MONTHLY SUMMARY FOR THE CABINET
(For the month of **April 2018**)
(Part-I Unclassified)

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

MAJOR ACHIEVEMENTS DURING THE MONTH OF APRIL, 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.
- 140 in-house R&D units of industries were granted renewal of recognition as well as registration certificates

Scientific and Industrial Research Organization (SIROs)

Recognition/ Registration and Renewal of SIROs

- 03 SIRO were granted recognition as well as registration certificate.
- 47 SIROs were granted renewal of recognition and 26 were granted renewal of registration certificates.

Public Funded Research Institution (PFRIs)

Registration and Renewal of PFRIs

- 04 PFRI were granted renewal of registration.

Fiscal Incentives for Scientific Research

- 01 industry was approved for issuance of form 3 CM under Section 35(2AB) of IT Act under weighted tax deduction.
- 47 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.165224.2 lakhs.

AUTONOMOUS BODIES

1. Council of Scientific & Industrial Research (CSIR)

1.1 Hon'ble Vice-President of India visited CSIR-NEIST

The Hon'ble Vice-President of India, Shri M. Venkaiah Naidu visited CSIR-NEIST, Jorhat and addressed the scientists and other staff. He said that Science and Technology interventions should improve the nutritional status of women and children in underserved areas. The Hon'ble Governor of Assam, Shri Jagadish Mukhi, the Hon'ble Minister for Agriculture, Assam, Shri Atul Bora and other dignitaries were present on the occasion. The Vice

President said that Science and Technology can enable farmers to generate more income and enable them to optimally utilize resources like soil and water. Technology can also help protect forest wealth, reduce pollution and help us to lead healthier lives, he added. He said that one must strive to be among the leaders in the field, accessing applying and adding to the wealth of scientific knowledge. There is a need to continuously draw inspiration from this lineage and forge ahead in the current world which is witnessing phenomenal changes mediated by science and technology, he added.

1.2 CSIR-CSMCRI : Process Developed to Remove Lead, Chromium and Dyes from Wastewater

CSIR-CSMCRI, Bhavnagar has synthesized graphene-iron sulphide nano-composite to remove toxic materials such as lead and chromium and certain dyes from industrial wastewater. The nano-composite was prepared by mixing dried green seaweed *Ulva fasciata* with iron chloride and heating the mixture up to a suitable temperature just to remove moisture and its inert nature. The seaweed is rich in sulphur, which becomes sulphide when it binds to iron. The graphene nano-composite functionalized with iron sulphide facilitates the absorption of heavy metals and dyes.

1.3 CSIR-CSIO : Developed Portable Integrated Optical System

CSIR-CSIO, Chandigarh has developed a portable integrated optical system for field detection of major water pollutants such as arsenic, nitrates and fluoride. The technology has been transferred to M/s Ambtek Innovations P. Ltd, Ambala. The developed technology can be an integral part of Smart City Initiative.

1.4 CSIR-NEERI : Developed a Cycle that Floats on Water to Remove Debris

CSIR-NEERI, Nagpur has developed a floating cycle to rejuvenate water bodies. The cycle aims at not only cleaning the lake but also increasing the dissolved oxygen level of the water bodies. The floating cycle is equipped with a propeller which can be operated by a handle. There is a mesh attached in the front which will collect floating debris and solid waste from the lake. The paddle wheel at the back will churn the water providing aeration to the water body.

1.5 CSIR-IMMT : Process Developed to Remove Sulphur from Fossil Fuels

CSIR-IMMT, Bhubaneswar has successfully developed a process to remove sulphur from fossil fuels such as petroleum and coal using novel bacterial strain. Sulphur is one of the major pollutants emitted during the combustion of fossil fuels. Four bacterial strains use dibenzothiophene (an organic Sulphur compound which is a major contaminant of fossil fuel) as an energy source for removing sulphur. The new process is also eco-friendly and economical, and these new bacterial strains can be potentially explored for the removal of sulphur from fossil fuels on a commercial scale.

1.6 CSIR Intellectual Property

The Patent position for this month is given below:

Patents Filed		Patents Granted	
India	Abroad	India	Abroad
18	04	09	15

1.7 Honors & Awards

CSIR has been awarded the National Intellectual Property Award-2018 for being the 'Top R&D Institution/ Organization for Patents and Commercialization'. DG, CSIR and Secretary, DSIR received the award from Shri Suresh Parbhu, Hon'ble Commerce and Industry Minister at a function organized by the Indian Intellectual Property Office and Confederation of Indian Chambers of Commerce (CII) in New Delhi to celebrate the World Intellectual Property Day.

1.8 Significant Events

(a) Conferences, Workshops Organized

- (i) CSIR-IIP, Dehradun and Indian Society of Analytical Scientists has jointly organized a three days' international conference on 'Advances in Analytical Sciences (ICAAS-2018)'.
- (ii) CSIR-CSMCRI, Bhavnagar and CSIR-NEERI, Nagpur has jointly organized two days national conference to create awareness on 'Waste to Wealth Initiatives'.
- (iii) CSIR-NISTADS, New Delhi in association with Assam Kaziranga University has organized the Northeast Sustainable and Inclusive Development Summit-2018.
- (iv) CSIR-IIIM, Jammu in collaboration with DG Knot Business Management Ltd. conducted an awareness programme on "Catalyzing Rural Employment through Cultivation, Processing, value Addition & Marketing of Aromatic Plants" under CSIR-Aroma Mission on 29.04.2018 at Ajoli Malli, Almora, Uttarakhand "

(b) Agreements/Memorandum of Understanding Signed

- (i) CSIR-CMERI, Durgapur has signed a license agreement with M/s Mahalaxmi Auto Industries, Adityapur, Jamshedpur on transfer of '3 ADI Technology for manufacturing engineering components'.
- (ii) CSIR-NEIST, Jorhat has signed a Confidentiality Disclosure Agreement with M/s Bitchem Asphalt Technologies Ltd., Guwahati for production of Modular Bricks from River beds. The Institute has also signed Technology Transfer Agreements on (i) Herbal formulation for management of Arthritis with M/s Naturoveda, Kolkata and (ii) Bio-Organofertilizer "SUFAL" with M/s Rishika Interior and Developer Pvt. Ltd, Guwahati. Further the Institute has signed a Tripartite Memorandum of Agreement (MoA) with SASRD-Nagaland University and Dept. of Agriculture, Govt. of Nagaland for implementing

STINER-CFC at SASRD-NU campus and extending training to the farmers/cluster of farmers etc.

- (iii) CSIR-NPL, New Delhi has signed an MoU with the Department of Telecommunication (DoT) on knowledge sharing for establishing a nationwide time stamping and time synchronization network.

PUBLIC SECTOR ENTERPRISES

1. National Research Development Corporation (NRDC)

- NRDC has been assigned a technology on 'Robocoastal Observer' by NIOT, Chennai. NRDC has licensed technologies on (i) 'Robocoastal Observer' to M/s CT Control Technology (India) Pvt. Ltd, Bengaluru and (ii) 'Unmanned Remotely Operated Vehicle (ROV)' to M/s Larsen and Toubro, Mumbai. NRDC has collected a premia of Rs. 51.00 Lakh from licensing of these technologies during April, 2018. NRDC has also collected a royalty of Rs. 1.22 Lakh during April, 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.415.96 Lakhs and realized sale of such items worth Rs. 362.06 Lakhs during April, 2018.
