

**No. DSIR/MS/2017/12**  
Government of India  
Ministry of Science & Technology  
Department of Scientific & Industrial Research  
**MONTHLY SUMMARY FOR THE CABINET**  
(For the month of **December, 2017**)  
(Part-I Unclassified)

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

**MAJOR ACHIEVEMENTS DURING THE MONTH OF December, 2017:**

**DEPARTMENTAL ACTIVITIES**

**1. Industrial R&D Promotion Programme**

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

- 06 in-house R&D units of industries were granted recognition as well as registration certificates.
- 36 in-house R&D units of industries were granted renewal of recognition and 35 were granted renewal of registration certificates.

**Public Funded Research Institution (PFRIs)**

**Registration and Renewal of PFRIs**

- 06 PFRIs were granted renewal of registration.

**Fiscal Incentives for Scientific Research**

- 15 industries were approved for issuance of form 3 CM under Section 35(2AB) of IT Act under weighted tax deduction.
- 92 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.2,32,684.66 lakhs.

**AUTONOMOUS BODIES**

**1. Council of Scientific & Industrial Research (CSIR)**

**1.1 CSIR-NML:Developed a Novel Nanocomposite to be used as a Regenerative Bone Graft**

CSIR-NML, Jamshedpur has developed a novel nanocomposite which has shown potential to be used as a regenerative bone graft especially in regions which need high strength. The nanocomposite was synthesized through a simple and cost-effective route. The technology is transferred to an industry.

**1.2 CSIR-IITR:Adsorbent Material Developed to Decontaminate Water**

CSIR-IITR, Lucknow has developed a low cost magnetically responsive carbon nano-material from polyethylene terephthalate (PET) in plastic waste

which can be used to remove an antibiotic cephalixin from water.

### **1.3 CSIR-NCL: Microbial Strain Identified to Breakdown Glycerol**

CSIR-NCL, Pune has identified a microbial strain which can breakdown the crude glycerol (a byproduct during biodiesel production) which can be used for commercial industrial purpose.

### **1.4 CSIR-IMMT & CSIR-IGIB: Prepared DNA based Nanotherapy for Cancer Treatment**

CSIR-IMMT, Bhubaneswar and CSIR-IGIB, Delhi has prepared branched DNA nanostructures through self- assembly process. The novel type of DNA nanostructure has been synthesized that can inhibit the activities of specific cancer-causing tiny Ribonucleic acid (RNA) molecules, making it potentially useful for treating cancer.

### **1.5 CSIR-IICB & Banaras Hindu University : New Light on KALA-AZAR**

CSIR-IICB, Kolkata and Banaras Hindu University, Varanasi have identified *Leptomonas seymouri*, a virus carrying microbe in most of the blood samples of kala-azar patients. The finding may provide new leads for understanding and devising better ways to treat the disease and its complications such as post kala-azar leishmaniasis.

### **1.6 CSIR-IIP: Developed the Improved Gur Bhatti at Doiwalla, Dehradun**

Shri Trivendra Singh Rawat, Hon'ble Chief Minister, Uttarakhand, inaugurated an improved jaggery-making plant (Gur Bhatti) at Doiwalla, Dehradun which has been developed by CSIR-IIP Dehradun. The plant consumes less fuel, is more efficient and spreads less pollution which, in turn, will help in maintaining health of the workers and farmers.

### **1.7 CSIR-CSIO : Technology Transferred on Military Aviation Head Up Display Test Platform (MAHTP) to Bharat Electronics Limited, Panchkula**

CSIR-CSIO, Chandigarh has transferred a technology on Military Aviation Head Up Display Test Platform (MAHTP) to Bharat Electronics Limited, Panchkula. The technology is meant for Air Force and Aviation Wings of Navy and Army. The comprehensive aviation test platform provides visual inspection, system health monitoring through communication, automated testing, fault debugging, repair and maintenance at system level, and semi-automated evaluation of optical parameters.

### **1.8 CSIR Intellectual Property**

The Patent position for this month is given below:

<b>Patents Filed</b>		<b>Patents Granted</b>	
India	Abroad	India	Abroad
18	25	16	38

## 1.9 Honors & Awards

- (i) CSIR-CSIO, Chandigarh has received 'Gold-Skoch Transformational Innovation Award 2017', 'Skoch-Order-of-Merit-Award 2016' and three more Skoch order of merit awards for its innovative projects and technologies.
- (ii) Dr. Sarmishta Palit Sagar, CSIR-NML, Jamshedpur has received Non-Destructive Testing (NDT) National Award for International Recognition jointly organised by Indian Society for Non-Destructive Testing (ISNT) & M/s Feroflux Products, Pune.
- (iii) Dr. S. Chandrasekhar, Director, CSIR-IICT, Hyderabad is honoured with 'C.V. Raman Birth Centenary Award' for the year 2017-2018. The award is presented for the key role played in the development of Science and Technology – specifically in the realm of Space, Biomedical Science and Pharmaceuticals. This prestigious award carries a Gold Medal and will be presented during the inaugural function of 105th Indian Science Congress.
- (iv) Dr. S. Venkata Mohan, CSIR-NEERI, Nagpur received "Environmental Engineering Design Award 2017" from National Design and Research Forum (NDRF) of Institute of Engineers, India (IEI) for the outstanding contributions in the field of Engineering Design.

## 1.10 Significant Events

### (a) Conferences, Workshops Organized

- (i) CSIR-CIMFR, Dhanbad has organized two days International Workshop on 'Climate Change Mitigation Scenarios: Implications for India's Coal Sector'.
- (ii) CSIR-NEERI, Kolkata Zonal Centre, Kolkata has organized two days' National workshop on 'Environmental Priorities and Challenges with Special Focus on Eastern and North Eastern Regions'
- (iii) CSIR-NIO, Goa has organized four days' workshop on 'S&T Communication Strategies and Approaches with focus on 'The Indian Ocean - Economic and Geostrategic Significance'. The workshop was inaugurated by Hon'ble Chief Minister of Goa, Shri Manohar Parrikar. The Institute also organized a one-day workshop on 'Recent advances in the oceanography of the Indian Ocean-Role of Research Vessels'.
- (iv) CSIR-NPL, New Delhi has organized a symposium on 'Indian Strategy for Quality Infrastructure'. The Hon'ble Minister of Science & Technology, Earth Sciences and Environment inaugurated the event.

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

- (i) CSIR-NIO, Goa has signed a transfer of technology agreement with M/s Greenle Life Sciences Pvt Ltd., Kochi for the extraction of cytotoxic melanin from sponge associated bacteria for biomedical applications.
- (ii) CSIR-NML, Jamshedpur has signed an agreement with SAIL, New Delhi for development of process technology for third generation advance high strength steels.
- (iii) CSIR-NML, Jamshedpur has signed an agreement with M/s Shree Mahabir Refractories Work, Ranchi for production of highly metallised Directly Reduced Iron (DRI) from mill scale and lean grade coal in tunnel kiln.

- (iv) CSIR-NIO has signed an MoU with: (i) National Remote Sensing Centre, Hyderabad for 'Development of bio-optical algorithms for the coastal waters and validation of products from the ocean color satellite sensors; and (ii) Mithibai College, Mumbai for a collaborative DBT project on the 'Characterization and comparison of Mussel Adhesive Proteins from Perna indica and Perna viridis for potential use as a water resistant bio-adhesive'.

## **2. Consultancy Development Centre (CDC)**

### **2.1 Plan Project**

- Certificate programme on Franchise Scheme - Result was announced for the Certificate Programme in Technical consulting conducted by Dronacharya Group of Institutions, Greater Noida.

## **PUBLIC SECTOR ENTERPRISES**

### **1. National Research Development Corporation (NRDC)**

- NRDC has licensed technology for 'Eco Friendly Drought Tolerant Aerobic Rice Variety –ARB 6 ' to M/s. KisanKraft Limited. NRDC has collected a premia of Rs. 2.5 Lakh from licensing of this technology during December, 2017.
- NRDC has collected a royalty of Rs.100.96 Lakh during December, 2017.

### **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 has manufactured electronic components/systems/ SPV products worth Rs.3405.31 Lakhs and realized sale of such items worth Rs. 2015.29 Lakhs during December, 2017.

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