

No. DSIR/MS/2017/07
Government of India
Ministry of Science & Technology
Department of Scientific & Industrial Research
MONTHLY SUMMARY FOR THE CABINET
(For the month of **July, 2017**)
(Part-I Unclassified)

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

MAJOR ACHIEVEMENTS DURING THE MONTH OF July, 2017:

DEPARTMENTAL ACTIVITIES

1. Exhibition on Science & Technology Innovations

To showcase the S&T achievements and spin-off products and technologies amongst Parliamentarians, the DSIR on behalf of Parliamentary Standing Committee on Science & Technology Environment & Forests, Rajya Sabha organized a two week long 'Exhibition on Science & Technology Innovations' in the Parliament House Annex during July 28 to August 11, 2017. Six Scientific Departments and Ministries, viz. DST, DSIR, DBT, Ministry of Earth Sciences and Departments of Atomic Energy and Space participated in the Exhibition. The exhibition was inaugurated on 28th July, 2017 by the Vice President of India, Shri M. Hamid Ansari. The Vice President called upon scientists to continue to come up with new innovations so as to reduce the country's dependence on imported products. The Speaker of Lok Sabha, Smt. Sumitra Mahajan, the Hon'ble Minister for Science & Technology, Earth Sciences and Environment, Forest & Climate Change, Dr. Harsh Vardhan, the Hon'ble Minister of State for Development of North Eastern Region (I/C), Prime Minister's Office, Personnel, Public Grievances & Pensions, Atomic Energy and Space, Dr. Jitendra Singh, the Hon'ble Minister of State for Science & Technology and Earth Sciences, Shri Y.S. Chowdary, Chairperson of the Parliamentary Standing Committee, Smt. Renuka Chowdhury, Secretary General of Rajya Sabha, Shri Shumsher K. Sheriff and a number of Members of Parliament and other dignitaries were present on the occasion.

**2. Industrial R&D Promotion Programme
Recognition/ Registration and renewal of In-house R&D in Industry**

- 19 in-house R&D units of industries were granted recognition as well as registration certificates.
- 44 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

- 04 SIROs were granted recognition and 02 were granted registration certificate.

Fiscal Incentives for Scientific Research

- 09 industries were approved for issuance of form 3 CM under Section 35(2AB) of IT Act under weighted tax deduction.
- 58 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.103436.10 lakhs.

2. Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM)

- The project on 'Development of Kits for Direct PCR Amplification of Plant DNA' supported under PRISM Scheme has been successfully completed.

AUTONOMOUS BODIES

1. Council of Scientific & Industrial Research (CSIR)

1.1 'JIGYASA : Student - Scientist Connect Programme' Launched

CSIR, New Delhi has signed a Memorandum of Understanding with Kendriya Vidyalaya Sangathan (KVS) on 'JIGYASA : Student-Scientist Connect Programme' in the presence of Dr. Harsh Vardhan, Hon'ble Minister of Science & Technology, Earth Sciences, Environment, Forests and Climate Change and Shri Prakash Javadekar, Hon'ble Minister of Human Resource Development. The focus of the programme is on connecting school students and scientists, so as to extend student's classroom learning with that of a very well planned research laboratory based learning.

1.2 CSIR participated in 'Exhibition on Science & Technology Innovations'

CSIR and its constituent laboratories participated in 'Exhibition on Science & Technology Innovations' organized by the Parliamentary Standing Committee on Science & Technology Environment & Forests, Rajya Sabha.

1.3 CSIR-CFTRI : Developed Ragi Mudde Making Machine

CSIR-CFTRI, Mysore has developed a continuous ragi mudde making machine. Ragi powder and water is added to the machine and ragi balls come out as a continuous discharge with consistent shape and weight. Steam quality and other working parameters of the machine are maintained within the range by the control system of the machine. The unit can be cleaned easily. Ragi mudde are untouched by human elements and can be cooked fast. The machine can produce 250 muddes an hour and one person is enough to operate the machine.

1.4 CSIR-NIIST : Developed a method to Synthesize Chemical Sensors from Banana

CSIR-NIIST, Thiruvananthapuram, has developed a novel method of using biodegradable Nano Cellulose Fibres (NCF) extracted from banana pseudostem to synthesize flower-shaped silver nanostructures for ultrasensitive detection of chemical molecules.

1.5 CSIR-NEIST: Low-Grade Coal Nanoparticles can Power Supercapacitors

CSIR-NEIST, Jorhat developed a process for converting the coal feedstock into carbon nanosheets. These nanosheets were utilized as supercapacitor electrode materials, which is a high-performance energy storage device. The process is low-cost, easy and has eco-friendly aspects.

1.6 CSIR-CSIO: Designed & developed an Algorithm to Predict Smell of New Molecules

CSIR-CSIO, Chandigarh has designed and developed an algorithm that allows predicting smell of new molecules. This has vast applications ranging from enabling smell of recipes while viewing cookery show or get the taste of exotic food while retaining the smell of a traditional cuisine.

1.7 CSIR Intellectual Property

The Patent position for this month is given below:

Patents Filed		Patents Granted	
India	Abroad	India	Abroad
8	35	18	26

1.8 Significant Events

(a) Conferences, Workshops Organized

- (i) CSIR laboratories have organized a Science Outreach programme named 'Jigyasa' that connects CSIR scientists with school students.
- (ii) CSIR-NEIST, Jorhat has organized two-day Training cum Workshop on Basic Bioinformatics Tools sponsored by Department of Biotechnology, Govt. of India, New Delhi.
- (iii) CSIR-NPL, New Delhi has organized a two days national conference on 'Environment Challenges: Solutions and Way Ahead'.

(b) Agreements/Memorandum of Understanding Signed

- (i) CSIR-CIMAP, Lucknow has signed three license agreements through NRDC with M/s Naturoveda Organics, Kolkata for commercialization of herbal formulations that claim to overcome hair fall and dandruff (Geranium Hair Care Shampoo), mental stress (Relaxomap-stress relieving oil) and acne problems (Acne Face Wash).
- (ii) CSIR-CSIO, Chandigarh has signed an MoU with Punjab Remote Sensing Centre (PRSC) for collaboration in the areas of developing sensor-systems and the use of geospatial technology in natural resource management and

other areas in order to provide an end-to-end solution to real world issues such as water and food security.

- (iii) CSIR-IHBT, Palampur has signed an agreement with Indcoserve, Coonoor, the apex body of the Industrial Cooperative (Indco) Tea Factories of Tamil Nadu, to extract catechism from tea leaves, on a transfer of technology basis.
- (iv) CSIR-IICT, Hyderabad has signed an MoU with Semiconductor Laboratory, Dept. of Space, Chandigarh for collaborative projects involving synthesis and purification of specialty chemicals and gases used in semiconductor fabrication.
- (v) CSIR-IIIM, Jammu has signed an MoU with Central University of Jammu for cooperation in the diverse areas of biological and chemical science. The two institutions shall seek to promote academic and scientific collaboration for mutual benefit, interaction between the scientists and research fellow, research scholars, faculty members and students of both the organization.
- (vi) CSIR-NEIST, Jorhat has transferred its technology on Herbal Anti-Arthritis formulation to M/s Ayur Force Organics Pvt.Ltd., New Delhi. The technology transfer has been catalyzed by NRDC, New Delhi. A tri-partite MoU between CSIR-NEIST, NRDC and Ayur Force was signed in this regard.

(c) Honour & Awards

- (i) Dr. Balamati Choudhry, Scientist, CSIR-NAL, Bengaluru has received International Conference on Consumer Electronics (ICCE)-2017 Outstanding Young Investigator Award in the Science & Technology of Metamaterials at Madera, Portugal.
- (ii) Dr. Parthasarathi Chakraborty, Senior Scientist, CSIR-NIO, Goa has been selected for the prestigious “Kharaka Award” from the International Association of Geochemistry, USA for his outstanding contribution on environmental geochemistry of metals.
- (iii) Dr. Uma Vadapalli, Technical Assistant, CSIR-NGRI, Hyderabad has received the ‘Young Scientist Award for the year 2016 for her contributions on hydrocarbon reservoir modelling studies.

2. Consultancy Development Centre (CDC)

2.1 Plan Projects

- Content Development for the Course-Certificate Programme in Technology Management: Project Review Committee Meeting has accepted the draft Course Material.
- Content Development for the Course-Certificate Programme in Strategy Consulting: Project Review Committee Meeting was held.
- Study on Solutions and Business Opportunities for Consultants in facilitating Start-ups-in Consulting/ CSIR technologies: Terms of Reference (ToR) has been prepared.

PUBLIC SECTOR ENTERPRISES

1. National Research Development Corporation (NRDC)

- National Research Development Corporation (NRDC) has been assigned five technologies by CSIR-IITR, Lucknow and one technology by Central Sericultural Research and Training Institute (CSR&TI), Mysuru. The details are given below :

S No.	Technologies Assigned by CSIR-IITR, Lucknow
1	Circular Electrophoresis
2	MO (Mustard Oil) Check
3	Argemone Oil Detection Kit [AO-Kit]
4	Water Analysis Kit (O-NEER)
5	Electronic devices for drinking water disinfection
	Technologies Assigned by CSR&TI, Mysuru
6	ROT-FIX: A Broad Spectrum Environment Friendly Formulation for control of root rot disease in Mulberry

- NRDC has licensed one technology to M/s. A&N Traders, Idukki, Kerala and one technology to M/s Avin Lights Industries Pvt. Ltd., Delhi. NRDC has collected a premia of Rs.2.60 Lakh from licensing of these technologies during July, 2017. The details are as given below :

Sr. No.	Licensee	Technology	Rs
1	M/s. A&N Traders, Kandathipparambil, Mangattukavala, Thodupuzha, Idukki, Kerala	A micronutrient composition for cardamom and a process for its preparation	2,50,000
2	M/s Avin Lights industries Pvt. Ltd., Delhi	Evaporative cooling apparatus resistance to vector breeding	10,000
		Total	2,60,000

- NRDC has collected a royalty of Rs.158.61 Lakhs during July, 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.511.86 Lakhs and realized sale of such items worth Rs. 966.80 Lakhs during July, 2017.
