

No. DSIR/MS/2019/01
Government of India
Ministry of Science & Technology
Department of Scientific & Industrial Research
MONTHLY SUMMARY FOR THE CABINET
(For the month of **January, 2019**)
(Part-I Unclassified)

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

MAJOR ACHIEVEMENTS DURING THE MONTH OF JANUARY, 2019:

DEPARTMENTAL ACTIVITIES

1. Industrial R&D Promotion Programme

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

- 16 in-house R&D units of industries were granted recognition as well as registration certificates.
- 30 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

- 05 SIROs were granted recognition and 02 were granted registration certificates.

Public Funded Research Institution (PFRIs)

Registration and Renewal of PFRIs

- 03 PFRIs were granted registration.
- 03 PFRIs were granted renewal of registration.

Fiscal Incentives for Scientific Research

- 05 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.922.48 Lakhs.

AUTONOMOUS BODY

1. Council of Scientific & Industrial Research (CSIR)

1.1 CSIR-IIP: Biofuel Mix (technology developed by CSIR-IIP) used by IAF Jet on Republic Day Flypast

For the first time, during the Republic Day parade 2019, the Indian Air Force flew an An-32 aircraft in a formation whose lead plane used a mix of traditional and biofuel. The lead aircraft of the formation was flown using aviation turbine fuel blended with 10 per cent biofuel. The biofuel has been extracted from jatropha plant seeds using a technology developed by CSIR-IIP, Dehradun

1.2 CSIR-CEERI: Developed App-Based Alco meter

CSIR-CEERI, Pilani Rajasthan, has developed a cost effective, handy and app-based Alco meter. The instrument is used as a breath analyzer for checking drunken driving. At present, these are imported.

1.3 CSIR-CMERI: Process Developed for Conversion of Vegetable Oil to Biodiesel

CSIR-CMERI, Durgapur has developed a non-continuous biodiesel plant which will be capable of converting any vegetable oil (edible and non-edible) and animal fat to biodiesel. The plant design is based on process timing and simulation so that all the components can work for the designated time and ultimately produce biodiesel per day (24 hours) working basis. The produced biodiesel can be used in diesel engines, gensets and furnaces in order to make the city clean and green and it will reduce city's dependence on fossil fuel. The technology has been transferred to an industry.

1.4 CSIR-NGRI: Conducted Survey at Coal Mine Accident Site in Meghalaya

CSIR-NGRI, Hyderabad conducted an electrical resistivity tomography survey in Meghalaya's Kisan area where 15 miners are trapped inside a 370-ft flooded coal mine. The electrical resistivity tomography survey has been conducted to determine the resistivity distribution of the subsurface in terms of soil characteristics, rock type, underground water and geological structure.

1.5 CSIR-CSIO: Precision Optical Thin Film Laboratory Inaugurated

DG, CSIR and Secretary, DSIR, inaugurated a new facility for design, fabrication and metrology of optical thin films for strategic and defence industry, medical and public safety applications at CSIR-CSIO, Chandigarh.

1.6 CSIR-SERC: Inspection of Railway Track at Pamban Bridge

CSIR-SERC, Chennai has undertaken inspection and testing of the Pamban, Rail Bridge in Tamilnadu after its scherzo's spam developed cracks. Railways carried out the retrofit measures as suggested by CSIR-SERC.

1.7 CSIR Intellectual Property

The Patent position for this month is given below:

Patents Filed		Patents Granted	
India	Abroad	India	Abroad
16	28	19	31

1.8 Awards

- (i) CSIR New Delhi has been adjudged as Exhibitions of the year in 106th Indian Science Congress- Pride of India Expo organized at Lovely Public University, Phagwara.

- (ii) Dr. Subrata Kundu, Scientist, CSIR-CECRI, Karaikudi received Dr. B.C. Deb Memorial Award for the year 2018-19 from the Indian Science Congress (ISC) Association.
- (iii) Dr. G. Muralikrishna, former Chief Scientist CSIR-CFTRI, Mysore was awarded the prestigious Life-time Achievement Award by the Association of Carbohydrate Chemists and Technologists (ACCT), India, at the 33rd Annual Conference held at ISSER, Kolkata for work in the area of glycoscience and awarded the first prize in Siridhanya Award-2019 for Excellence in Research and Development in Millets.
- (iv) Dr. Pooja Devi, Scientist, CSIR-CSIO, Chandigarh received ISCA Young Scientist Award in Material Science Category for the year 2019. She received the award during the Validating function of the 106th Indian Science Congress held in Jalandhar, Punjab.
- (v) Dr. S. Venkata Mohan Principal Scientist CSIR-IICT, Hyderabad has been awarded Vasvik Award for the year in the 2018 category of Environmental Science and Technology by Vividhlaxi Audyohik Vikas Kendra.
- (vi) Dr. Ashwan Kumar and Dr. Prashn B.Patel Scientists, CSIR-IMT, Chandigarh have been selected for the 'National Bio Science Award for the career Development 2017-18 for his significant contributions in the area of Biological Sciences.
- (vii) Prof. Santosh Kapuria, Director, CSIR-SERC, Chennai has been awarded J.C. Bose National Fellowship by DST in reorganization of his Outstanding Work.
- (viii) Ms. Rupal Dubey, SRF, CSIR-NIO, Goa has received he Indian Science Congress Association Young Scientist Award for the year 2019. Ms. Dubey was presented with the award at the 106th Annual ISC session, held at Lovely Professional University. Phagwara, Punjab received this award in the field of Earth Sciences for her work on Foraminifera from the Mudbank off Kerala.

1.7 Significant Events

(a) Conferences, Workshops Organized

- (i) CSIR-CGCRI, Kolkata jointly with the Academy of Water Technology and Environ Management and Corporate Monitor organized a two-day National conclave or 'Water Resources Management'.
- (ii) CSIR-CIMAP, Lucknow conducted a 4-day workshop come training programme on Aloe Vera processing (AVPT-2019) and two-day training programme on "Improved production technologies of Aromatic and Medical Plants & Aromatic oils" under the CSIR Aroma Mission.
- (iii) CSIR-CSIO, Chandigarh conducted a Management Development programme on 'Operation and Maintenance of Analytical Equipment' under the Indian Technical & Economic Cooperation (ITEC) programme of the Ministry of External Affairs. The participants include 25 persons from foreign countries.

- (iv) CSIR-CSMCRI, Bhavnagar in joint collaboration with Indian Chamber of Commerce (ICC) and Niti Aayog organized a three days in international Seaweed EXPO in Mumbai.
- (v) CSIR-IMMT, Bhubaneswar organized a two-day workshop on “Scientist - Teacher interactions under the Jigyasa programme of CSIR to the Kendriya Vidhalya teachers for acts the state of Odisha.
- (vi) CSIR-NCL, Pune in association with CSIR-CLRI conference organized a two day a national stockholding workshop titled “Waste to Energy technologies” sponsored by DBT, New Delhi.
- (vii) CSIR-NEERI, Nagpur organized a two-day International workshop on “Assessment of Environmental, Occupational Health and Safety” jointly with the Society for Advancement of Occupational and Environmental Health (SAOEH). It also organized a two-day international workshop on “Assessment of Environmental, Occupational Health & Safety”. one-day Brain storming session on “Frothing Lakes: Courses & Mitigation (FROTH 2019) in Hyderabad.
- (viii) CSIR-NEIST, Jorhat organized on “Livelihood Sustainable Income generation on Agriculture and other Sectors” along with Siang Farmer Federation, Aalo, West Siang, Arunachal Pradesh. Around 3000 participants/ beneficiary/farmers/ entrepreneurs attended the meeting. The institute also organized jointly with the Namsai Krishi Vigyan Kendra (NKV), a training programme on ‘Utilization and Processing of Aromatic Plants’ for the farmers of Kumari Adivasi Village under the CSIR-Aroma Mission.
- (ix) CSIR-NIO, Goa has organized one-day national workshop on ‘Advances in Oceanography – Indian Ocean Perspective’ at its Regional Centre, Mumbai.
- (x) CSIR-NML Jamshedpur in association with Institution of Engineers and Tata Steel organized the 32nd National Convention cum seminar on “Advances in Engineering Nationals for Sustainable Development (AEMSD 2019)”.
 - (b) Agreements/Memorandum of Understanding Signed**
 - (i) CSIR-CFTRI, Mysore signed MoU with JSS S&T varsity and Science & Technology University, under the aegis of JSS Mahavidyapeetha to work on latest technologies like artificial intelligence and machine learning and its impact on detection of food adulteration, quality valuation, food resource automation ad formulation of health care food and nutraceuticals.
 - (ii) CSIR, ICMR and the Department of Biotechnology have signed an agreement to develop jointly drugs on the basis of ancient Indian knowledge. There are seven drug candidates four from CSIR, two from ICMR and one for a DBT institute, Imphal which would be evaluated through the standard during development route of pre-chemical and chemical trials.

PUBLIC SECTOR ENTERPRISES

1. National Research Development Corporation (NRDC)

- NRDC has been assigned five technologies by Centre for Indian Bamboo Resources and Technology, New Delhi - (i) Development and

standardization of Technologies for Extraction and Value Addition of Fibers of Himalayan Nettle (Dans Kandali) (ii) Bamboo Fiber (iii) Bamboo tea with stevia, with lemon grass, with mulberry leaves (iv) Bamboo Cream (anti-ageing) and (v) Bamboo Sanitary Napkin. NRDC has also licensed technology on “Process for the manufacture of Millet Bread (Loaf Type): From Millets namely, Jowar/Jola, Kodo/Harka, Proso/Baragu , Pearl/Bajra/Sajje, Little/Same, Foxtail/Navane” to M/s 3 Elements, Bangalore

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. 2267.07 Lakhs and realized sale of such items worth Rs.2137.06 Lakhs during January, 2019. Development of Radome and TOT absorption certificate from DMRL are the major achievements during January, 2019.
