Contents

.

	CHAPTER P			7	•
	HIGHLIGHTS OF ANNUAL REPORT 2017-18	xi-xiii		•	•
	AN OVERVIEW	3			Ì
1.	Introduction	3		•	•
2.	DSIR Programmes	3			
2.1	Major Achievements	4		Y	٣
2.1.1	Industrial R&D Promotion Programme	4		٠	•
2.1.2	Common Research and Technology Development Hubs (CRTDHs)	5			
2.1.3	Information Technology and e-Governance	6		٠	•
2.1.4	Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM)	6		4	4
2.1.5	Patent Acquisition and Collaborative Research and Technology Development (PACE)	7		Y	Y
2.1.6	Access to Knowledge for Technology Development and Dissemination (A2K+)	7		+	•
3.	Asian and Pacific Centre for Transfer of Technology (APCTT)	8			
4.	RTI Act 2005	8		٣	•
5.	Autonomous Institutions	9		+	•
5.1	Council of Scientific and Industrial Research (CSIR)	9		ľ	ľ
5.2	Consultancy Development Centre (CDC)	19		+	•
6.	Public Sector Enterprises	20			
6.1	National Research Development Corporation (NRDC)	20			
6.2	Central Electronics Limited (CEL)	20		÷	¢
	BUILDING INDUSTRIAL RESEARCH & DEVELOPMENT AND COMMON RESEARCH FACILITIES (BIRD-Crf)	25		+	•
1.	Industrial R&D Promotion Programme	25		*	
1.1	Objectives	25		+	•
1.2	Areas of Coverage	25		Y	ľ
1.3	In-house R&D In Industry	25		•	•
1.3.1	Recognition of In-house R&D Units	25			
1.3.2	Renewal of Recognition	27			
1.3.3	R&D Expenditure	27		+	•
1.3.4	R&D Infrastructure	27			
1.3.5	R&D Manpower	27		+	•
1.3.6	Achievements of In-house R&D Units	28			•



¢	+		MAL OB		
¢	+	सत्य	मेव जयते		20
			1.3.7	Imports Made by In-house R&D Units	29 20
•	Y		1.4	Scientific and Industrial Research Organisations (SIROs)	29 29
•	•		1.4.1 1.5	Recognition of Scientific and Industrial Research Organisations Fiscal Incentives for Scientific Research	29 30
			1.5		30 31
•	•			Depreciation Allowance on Plant and Machinery Setup Based on Indigenous Technology	
•	•		1.5.2	Reference on expenditure on scientific research under Section 35 (3) of Income-Tax Act, 1961.	31
•	٠		1.5.3	Customs Duty Exemption to Recognised SIROs	31
4	4		1.5.4	Central Excise Duty Exemption to Recognised SIROs	31
Y	Y		1.5.5	Customs and central excise Duty exemption to Recognised In-house R&D units	32
•	•		1.5.6	Registration of Public Funded Research Institutions, Universities, etc.	32
•	•		1.5.7	Approval of In-house R&D Centres u/s 35(2AB) of I.T. Act 1961	33
			2.	Creation of Common Research and Technology Development Hubs (CRTDH)	34
•			2.1	Background	34
•	•		2.2	Aims and Objective	35
			2.3	Achievements	35
•	٠				
•	•		3.	Information Technology and e-Governance	37
			3.1	Introduction	37
♦	+		3.2	IT Action Plan	37
			3.3	Automation of DSIR Operations	37
•	Y		3.4	Enterprise integration, program implementation and e-service delivery.	37
¢	٠		3.5	Office automation solution, work flow management, record management and data warehousing	38
•	•		3.6	DSIR website.	38
			3.7	Intra DSIR (An electronic workdesk)	39
•	Y				
¢	•			PROMOTING INNOVATIONS IN INDIVIDUALS, START-UPS AND MSMEs (PRISM)	43
¢.	•		1.	Preamble	43
			2.	Other Activities	48
•					
¢	•			PATENT ACQUISITION AND COLLABORATIVE RESEARCH AND TECHNOLOGY DEVELOPMENT (PACE)	51
•	•		1.	Preamble	51
	Å		2.	Objectives	51
•	•		3.	Outcome Review of PACE Scheme	52

(E)



		Contents	
		Contents	
4.	Technology Development and Demonstration Projects during 2017-18.	52	
5.	Technology Development Projects under IMPRINT initiative.	57	
	ACCESS TO KNOWLEDGE FOR TECHNOLOGY DEVELOPMENT AND DISSEMINATION (A2K+)	63	
1.	A2K+ - Studies	63	
2.	A2K+ - Events	65	
3.	Technology Development and Utilization Programme for Women (TDUPW)	66	
4.	Technology Development and Demonstration Programme (TDDP)	70	
	ASIAN AND PACIFIC CENTRE FOR TRANSFER OF TECHNOLOGY (APCTT)	77	
1.	Introduction	77	
2.	Major Results in Capacity Building activities	78	
	IMPLEMENTATION OF RTI ACT 2005	89	
	AUTONOMOUS BODIES	95	
1.	COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH	95	
1.1	Biological Sciences	95	
1.2	Chemical Sciences	103	
1.3	Engineering Sciences	111	
1.4	Information Sciences	115	
1.5	Physical Sciences	117	
2.	CONSULTANCY DEVELOPMENT CENTRE (CDC)	120	
2.1	Introduction	120	
2.2	Activities	120	
2.3	Funded projects	120	
2.4	Financial Performance	120	
	PUBLIC SECTOR ENTERPRISES	123	
1.	National Research Development Corporation (NRDC)	123	
1.1	Introduction	123	
1.2	Profit	123	
1.3	Process assigned and Licence agreement concluded	123	
1.4	Lumpsum premia and royalty	124	
1.5	Consultancy/export of projects and services	124	
1.6	Promotional activities	126	
1.7	Human Resource Development	132	

DSIR Annual Report 2017-18

Y .

¢	÷				
♦	•	सत	त्यमेव जयते		
			1.8	Right to Information (RTI)	132
¢	•		1.9	Technology Absorption, Adaptation and Innovation	132
¢	•		1.10	Implementation of Official Language	132
•	•		2.	CENTRAL ELECTRONICS LIMITED	134
			2.1	Introduction	134
¢	+		2.2	Operating Results	134
			2.3	Major Achievements	134
T	Y		2.4	Swach Bharat Abhiyan	135
•	•		2.5	Future strategy	135
			2.6	Foreign Exchange Receipts & Outgo	136
•	٠		2.7	Energy Conservation	136
4			2.8	Particulars of employees	137
۲	Y		2.9	Implementation of Hindi, Industrial Relations	137
¢	÷		2.10	Welfare of Reserved Categories	137
¢	÷			ADMINISTRATION & FINANCE	141
			1.	Administration	141
T	Y		1.1	Staff Strength	141
♦	+		1.2	Promotion of Rajbhasha	141
			2.	Finance	142
•	•		3.	Extracts from CAG's Report	142
♦	ŧ			SWACHHTA ACTION PLAN	145
¢	ŧ				145
¢	•			FINANCIAL SUMMARY	149
•	•			ANNEXURES	153
			1.	Statement on Recognition of In-house R&D Units	153
•	•		2.	Statement on Renewal of Recognition of In-house R&D Units who's Recognition was Valid upto 31-03-2017	154
•	•		3.	List of In-house R&D Units in Industry Reporting Annual Expenditure more than Rs.5000 lakhs	155
•	+		4.	List of In-house R&D Units in Industry Reporting Annual Expenditure in the Range of Rs. 500 lakhs to Rs.5000 lakhs	159
•	•		5.	List of In-house R&D Units in Industry Reporting Annual Expenditure in the Range of Rs. 200 lakhs to Rs.500 lakhs.	173
•	•		6.	List of Scientific and Industrial Research Organizations (SIROs) Recognized By DSIR During the period January 2017 to November 2017	185
				0 · · · · · · · · · · · · · · · · · · ·	

				Y
		Contents	• •	•
7.	Certificates for claiming accelerated depreciation allowance issued by DSIR under	187	• •	•
/.	rule 5(2) of I.T. Rules vide Notification No. 133/342/86-TPL Dated 1.4.1987	107		
8.	List of Companies approved u/s 35(2AB) of Income Tax Act, 1961 during the year 2017	188	• •	•
9.	Details of projects supported under Promoting Innovations in individuals, Start-ups and MSMEs (PRISM) scheme	190	• •	•
10.	Details of completed Supported projects under Promoting Innovations in individuals, Start-ups and MSMEs (PRISM) scheme	191	• •	•
11.	Cumulative list of TDDP / PATSER projects commercialized so far	192		•
12.	Representation of SCs, STs & OBCs and Representation of the Persons with Disabilities.	197		
13.	Extracts of Audit Observations by CAG	198		•
14.	Organizations that observed Swachhta Pakhwada fortnight	199	• •	• •
	List of CSIR Establishment	201	• •	• •
	Abbreviations/Acronyms	203	• •	•
			1.1	