GOVERNMENT OF INDIA
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION NO. 3293
TO BE ANSWERED ON: 22.03.2017

INNOVATIVE PROJECTS

3293   PROF. RICHARD HAY:

Will the Minister of ELECTRONICS AND INFORMATION TECHNOLOGY be pleased to state:

(a) the innovative projects conceived and developed by the autonomous organisations funded by Government during the last three years;

(b) the overall financial investment made in these organisations by the Government during the last three years;

(c) the financial viability of the project undertaken and the percentage of projects which have been commercialised; and

(d) the valuation for patents that have been received from these projects in the last three years?

ANSWER

MINISTER OF STATE FOR ELECTRONICS AND INFORMATION TECHNOLOGY
(SHRI P.P. CHAUDHARY)

(a): 162 R&D/Innovative projects have been conceived and developed by MeitY's autonomous organisations during the last three years. The list of such projects is at Annexure.

(b): The Government has provided core grant support of Rs. 582.42 Crores to MeitY's R&D autonomous organisations in financial years 2013-14, 2014-15 and 2015-16.

(c) and (d): As against the core grant provided by MeitY to its R&D autonomous organisations, they have generated Rs. 1320.58 Crores as Internal and External Budgetary Resources (IEBR). The funded R&D/innovative projects to autonomous R&D organisations have resulted in commercialization of 50 such projects and also resulting in filing/granting of 85 patents.

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Sl. No.	Name of the Innovative Projects undertaken in last 3 years
1.	Energy Market Services for SLDCs of NER States
2.	PKI Body of Knowledge
3.	Early Fire Detection (EFD) and Safe Exit Guidance System
4.	e-Governance Analytics Platform (eGAP) for CBSE schools
5.	Establishing Research Laboratories using C-DAC Lab kits in North East Region Educational Institutes (SCADA Lab)
6.	Enhanced Decryption Tool on Heterogeneous Platform (17.03.2015 to 16.03.2017)
7.	An Ecosystem for Active Participation in Internet Standard Organizations
8.	Development of Technologies for Security Testing and Validation Methodologies for Cryptographic Modules
9.	Design and Development of Systems and Solutions for Smart Cities, using Internet of Things
10.	Development of Security solution for defense against attacks in Virtualization & Hypervisor technologies for Cloud Computing
11.	Online ABT Meter based System for SLDC Meghalaya
12.	Capacity Buildings In IT Skills of Schdule Tribes- Chattisgarh
13.	Capacity Buildings In IT Skills of Schdule Tribes- ANADAMAN
14.	Framework for Health Care Analytics
15.	Boss Linux Enhancement
16.	Design and Development of Systems and Solutions of samrt cities using Internet of Things
17.	Digital Library in Bhutan
18.	Leprosy Eradication Programme Monitoring and Performance Assessment (LEPMPA)
19.	Pilot project on IT enabled operation, maintenance & awareness of Semiconductor Integrated Circuits Layout Design Registry (SICLDR)
20.	"Promotion and Awareness of ESDM Policies of DeitY"
21.	"Centre for e-Governance (CeG) Management"
22.	Setting up of Centre for Excellence in Information Technology Skills at TURKMENISTAN
23.	setting up of IT Training Center at Equador
24.	PROJ-PERU
25.	Proj Coasta Rica Dominica and Pananama
26.	India Palestine CEICT Centre
27.	Proj Arusha Tanzania
28.	Proj CLMV/ASEAN
29.	Information Security Education Awareness-General Awareness-Phase II-Academic
30.	Information Security Education Awareness-Phase II-Government Officials Training
31.	Information Security Education Awareness-General Awareness-Phase II-Awareness Programme
32.	Information Security Education Awareness-General Awareness-Phase II-Institutional Mechanism for Implementation
33.	Design and Development of Mobile Based Educational Applications in Indian Languages (Mobile Apps)
34.	Setting up of National Digital Crime Resource and Training Centre (NDCRTC) at SVP National Police Academy, Hyderabad
35.	Safety Alert Systems using Dedicated Short Range Communication for on Road Vehicles" (Safe Drive)
36.	Design and Development of a solution of Detecting Malware in Embedded Systems (EMBEDED SEC)
37.	Information Security Education Awareness-Phase II-Participating Institute
38.	Information Security Education Awareness-Phase II-Government Officials Training
39.	Design and Development of Systems and Solutions for Smart Cities Using Internet of Things (IOT)

40.	Development of Secure Mobile Emial, Voice, SMS and Mobile Device Management solution for Government Users (Meghdoot)
41.	Development of Pronunciation Lexicon and Based on Experimental Study of Phonetics and Phonemics of Indian Languages (C-DAC Kolkata Consortium Leader)
42.	Speech-based Access for Agricultural Commodity Prices in Bengali Language – Phase II
43.	IT Oriented Handloom Sector Development Program for creative design, development & deployment by Artisans / Weavers & enhancement of Marketability through Web Portal for Handlooms of Jharkhand & Odisha States (Jharkhand- Odisha-CAD)
44.	Indegenous magnetic resonance imaging (IMRI) - A National Mission (Swadeshi Chumkayia Anunand Chitran), Sub project MR Vitualization
45.	Development of Computersied assitive system capable of improving human emotion recognition for person suffering from autism
46.	DISC (Mission for developing digitally inclusive and smart community)
47.	Bio Sensory computing for detection of pesticide in Tea
48.	studies on detection of cancer , processing infrared images and devloping appropriate instrumentation system for initial deployment in NE States
49.	Quality evaluation of Litchi fruit using E-vision and E-Nose System
50.	Non-Destructive Quality analysis of fruits using Acoustic Sensing
51.	Development of analysis tools for videos and other steganographed objects
52.	Centralized E-Auction Portal for North East States
53.	Capacity Development on Mobile Forensics Investigations and Creation of Resource Center for the Northeastern Police Forces
54.	Deployment of Automatic Speaker Recognition System on Conversational Speech Data for North-Eastern states
55.	Development of Translation Tools (English to Bengali, and English to KokBorok) for Government Use with Institution Linked Deployment towards the Empowerment of Common Citizens of Tripura
56.	Integrated Automation System for black tea manufactuiring at Bramhakund Tea Processing Factory Tripura
57.	IT enabled Computer aided design (CAD) for weavers and artisans of Silchar Assam
58.	D&D of Broadband Networks
59.	PHR Management System
60.	D&D Conti.Flow Hydro.Sys.
61.	ISEA Phase II
62.	m-Enablement of Government Departments Through Mobile Seva
63.	National Digital Locker System
64.	Citizen Contact Centre (CCC) - Sampark
65.	Rollout of Online Labs (OLabs) for schools
66.	eSangam: e Governance Services Integration Framework
67.	ENHANCING THE OUTREACH OF ELECTRONIC SYSTEM e-LEARNING
68.	IMPACT ASSSESSMENT OF TECHNOLOGY INCUBATION DEV.ENTERPRE
69.	SETTING UP OF ACEBER FORENSICS TRG.FACILITY (UTTARAKAND POLICE)
70.	ISEA PHASE-II
71.	Min.of Health & Family Welfare (Dev.& Maint.of Dashboard for DVDMS)
72.	Design & Delivery & Online Courses thrl Virtual Class-NIT Manipur
73.	CES-DeitY Flood
74.	DISC - CES Group,Pune
75.	Spectral Decomposition of Seismic Data
76.	Establishment of Centre of Excellence in IPR-IV (GIST)
77.	Certification Schemes Compliance EHR Standards (MIG)

78.	Clinical Record Integration Platform (MIG)
79.	Development of Software Solution in Sikkim
80.	Sms CompressionTechniques in Indian Language (GIST)
81.	IT Framework Verification of Authenticity Medicine (ACTS)
82.	National Roll Out of E Services of ECI Project (GIST)
83.	Data Centre Ph - II Project (GIST)
84.	BIONIC - BIG IMAGING DATA APPROACH - (MIG)
85.	HASTAKSHARA : AN ONLINE DIGITAL SIGNING FACILITY
86.	INTERNATIONAL PATENT PROTECTION IN E&IT
87.	IP AWARENESS WORKSHOP/SEMINARS (GIST)
88.	IPR-INDIA-EUROPE CONFERENCE (GIST)
89.	NATIONAL SUPERCOMPUTING MISSION - NSM
90.	Development of Recomb BCG Vaccine for cattle TB Ctrl
91.	ICAR Modeling Network of Gene Responses
92.	Numerical Investigation Using HPC
93.	Indo-Russia Seminar18th -20th Nov 2014
94.	Near-Real-Time Urban Flood Forecasting Sys
95.	NRB - Marine Forecast Data Dissemisation
96.	Weather Information Service Kerala
97.	Interium National Release Centre (INRC) (MIG)
98.	AIR QUALITY MANAGEMENT-DSS URBAIR INDIA
99.	Interium National Release Centre (INRC) (MIG) PH-II
100.	NOVEL MALARIA SURVEILLANCE SYSTEM
101.	ODISHA TELEMEDICINE E-ICU (MIG)
102.	Virtual Museum - Dr.B.R.Ambedkar
103.	Development of Thermal Sensor Based Monitoring System for the Early Detection and Screening of Breast Cancer [MSBC] - CIG196D
104.	Monitoring System for Guruvayoor Sewer Network Phase - I [MSGSN] - CIG197S
105.	SDR Development Platform for Researchers and Academia [SDR - DP] - BCG062D
106.	Software Defined Radio[SDR] Development Platform for Researchers and Academia [Technical Support for BCG062D] [SDRP[TS BCG062D]] - SEG101D
107.	Telemedicine facility for Medical College Manjeri [TM-MC Manjeri] - HSG013S
108.	Directorate of Economics and Statistics core Application Software [DESCAS] - HSG014S
109.	Automation System for Kovur Sugar Factory, Nellore [ASKSF] - CIG200D
110.	Design and Development of Universal Analog Input Module and HART compatible Input-Output Modules [UNIO] - CIG202D
111.	Diabetic Retinopathy Identification Software for Timely Intervention [DRISTI] - HSG016D
112.	Biomedical Signal Analyzer for Seizure Prediction [BMSA-SP] - HSG017D
113.	Design and Development of a Compact Cost effective Brix Meter for Sugar Industry Proof of Concept [Brix] - CIG203D
114.	Enterprise Logistics Application [ELAV2][ENAMS] - SDS507C
115.	ICT Based Integrated Assessment Tool for Differently Abled Persons Phase -II [Punarjani Ph II] - BCG063D
116.	Development of LVDC Architecture [LVDC - PEG115D
117.	Investigations on Gallium Nitride[GaN] devices for Power Electronics Switching Applications and Design and Development of High frequency GaN Converter topology [GaN-SMPS] - PEG114D

118.	Study of Software Defined Networks For a New Networking Era [SDN_STUDY] - BCG064D
119.	Safety Alert Systems using Dedicated Short Range Communication for on Road Vechicles [SAFE DRIVE] - CIG204D
120.	Wide Area Monitoring Using Phasor Measurement Units [WAM] - PEG116D
121.	Advanced Automation and Process Optimization System for 1200TPD Malabar Cements Factory at Walayar, Palakkad [Automation MCL] - CIG205D
122.	Submarine Echo Sounder MK1 [SES MK1] - SEG105S
123.	Implementation of Net Zero Energy Building [NZEB] using Non Conventional Source & Energy Management Systems [NZEB] - PEG118D
124.	Medium Voltage Drive with Selective Harmonic Compensation [MVD] - PEG117D
125.	Devpt. Of Solar Charge Controller Unit for Telecom Application [SPVCCU] - PEG119D
126.	Cyber Crime Case Analysis [CCCA] - CFS013X
127.	Cyber Forensics Training [CFT] - CFS012X
128.	Technology Transfer Centre - PEG121D
129.	Development of Cyber Security Test bed Specifications and Test Methodologies for Industrial Control Systems - CIG206D
130.	Wireless Internet Protocol enabled time slotted and channel loping Sensor Network [WIPSen] - CIG207D
131.	Telemedicine for Central and Open Prisons - HSG020S
132.	MRI Software System for "Indigenous Magnetic Resonance imaging - A National Mission" - SEG112D
133.	Reconstruction and UI Software System for Indigenous Magnetic Resonance Imaging - HSG021D
134.	Medical Imaging Work Station for Virtual Endoscopy - HSG019S
135.	Design and Development of Single-Phase/Three Phase Smart Energy Meters for Indian Power Network - PEG120D
136.	Implimentation of Information Security Educational Awareness Project Phase - II - SDS508D
137.	DARPAN S2 NMS For Ministry of Home Affairs - BCG066M
138.	Design and Development of System and Solutions for Smart Cities, Using Internet of Things - CIG208D
139.	Development of Assistive Reading Tool Malayalam for Visually Impaired [ART- SRM] - LTS007S
140.	Consultancy Services For Setting up Of Cyber Forensics Laboratory at Electronics Corporation Of India Limited [CFL- ECIL] - CFS014C
141.	Setting up of Test bed for Cyber Threats and Situational Awareness [T SAP] - ITS007D
142.	Online Coal Dust Suppression System for Opencast Mines [CDSS] - CIG212C
143.	Development Production and supply of Microwave Substrates for High Power Microwave amplifiers
144.	Development of preparation of carbon Aerogel and Development of Aerocapacitor for Electronics applications
145.	Development and Pilot Production of Nano-ZnO for Electronics and Deep-desulphurization Catalyst applications
146.	Dev. of graphene super capacitors for power electronics
147.	Development of Pilot production of Nano-PZT compositions and Piezoceramic components for Underwater SONAR Transducers, Ultrasonic cleaners and Medical applications
148.	Development and Pilot Production of high permittivity and low loss Ceramic filled PTFE substrates for microwave circuit applications
149.	Development of light triggered graphene/polymer nanocomposite actuators
150.	Establishment of extended pilot plant facility for preparation of 320 Kg per annum Hafnium Sponge
151.	
152.	Silicon Carbide Single Crystal bulk Growth Process Development
153.	
154.	Environmentally Sound Methods for Recovery of Metals from Printed Circuit cards (PCBs) Phase-II
155.	
156.	Development of prototype Aprons, glass, sheets and curtains from lead free X-ray Absorbing materials.
157.	Development of optical isolators using quantum dots based photonic glasses

158.	Development of active materials (Cathode and Anode) for high energy density Lithium-ion Cell/ Battery with fabrication of Prototype cell
159.	In-house development of photo-conducting paste (using semiconductor nanostructures) for exploration in photo
160.	"NASSCOM-ERNET Centre of Excellence (CoE) for Internet of Things (IoT)"- A project funded by MeitY under PPP model
161.	The PoC of TV White Space Technology was conducted at 05 locations with objective of testing the communication losses & provision of internet with ease. Now ERNET India wants to extend the PoC of TV White Space Technology using products of different OEM's and facilitating the Internet connectivity over TV White Space over wider coverage.
162.	A prototype has been developed using Internet of Things (IoT) technology based on open standards to demonstrate real-time water flow metering and water quality monitoring. This prototype enables seamless transmission & access to collect data over internet for further analysis by the water supply authorities.