

**VIDYA PRATISHTHAN'S KAMALNAYAN BAJAJ  
INSTITUTE OF ENGINEERING AND TECHNOLOGY, BARAMATI.**

**Smart India Hackathon 2017 - List of Department**

<b>1 Name of the Department:- <u>Airport Authority of India, Ministry of Civil Aviation</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Smart APP for Airport Feedback		
2	Automatic status report from end-point Biometric Access Control systems (BAC)		
3	Online processing for grant of initial No Objection Certificate for Scheduled /Non-Scheduled airlines.		
4	Geo-fencing of airport boundary map covering prohibited and restricted area for preventing drone operations close to airport		
5	App based Maintenance schedules For CNS facilities		
6	Tool for Simulation analysis for CNS facilities		
7	Provision of controlled data from Automatic Dependent Surveillance -B Systems		
8	CRC algorithm		
9	Development of software for generation and validation of survey maps & charts to reduce time and improve efficiency		
10	Software tool to determine (X,Y) and WGS 84 coordinates from axis and runway threshold and vice versa		
11	GAGAN positioning and timing information / others		
12	Software tools for GAGAN system performance monitoring, accuracy, availability needs to be developed indigenously which can perform following functions		
13	Congestion during peak winter fog & monsoon season.		
14	Airlines on-time performance – measurement and analysis		
15	App based Alerts to APDs and concerned HODs		
16	Verification of Bank Guarantee		
17	Automatic update of CommunicatNS equipment serviceability status		
18	Real time monitoring of CNS equipment spares		
19	Performance evaluation of Air Traffic Controllers		
20	ATS Roster Management		
21	Automation of Training Management System		
22	Automated washrooms cleaning & monitoring system		
23	Airport Safety data		
24	Passenger Facilitation regarding estimated wait times at security check ins and other queues at the airport		

<b>2 Name of the Department:- <u>All India Council for Technical Education (AICTE)</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Lack of sustainability in appointment of Faculty in Higher Educational Institutions/Colleges		

2	Career dendrogram		
3	Lack of information about Academic Activities in single platform		
4	Lack of information on Public research sources and availability, cost, etc.		
5	Open Data of Universities is lacking.		
6	Single National Academic Calendar for Universities is wanted		
7	Knowledge platform for sharing the project works taken up by the students in Technical/Higher Educational Institutes and Universities throughout the country.		
8	Interlinking of Campus placement in Technical institutes/Higher Educational Institutes and Universities throughout the country.		
9	Interlinking of School education, Higher education and Technical education at all levels throughout the country.		
10	Attractive Mobile App for AICTE providing information on activities		
11	Attractive website design with innovative ideas for AICTE		
12	One Point Student Verification through Mobile Application		
13	One Point Student/Faculty Details Verification through Functional Application Software		
14	Standard Course Curriculum Design for all the Universities across India		
15	Prediction of Admission & Jobs in Engineering & Technology /Management/Pharmacy with respect to demographic locations		

<b>3 Name of the Department:- <u>Department of Atomic Energy</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Vulnerability analysis in 64-bit Linux binaries		
2	Radionomics		
3	Programming Guideline checker for C programs		
4	De-duplication		
5	GPS mapping of resources for Crisis management		
6	To make a Cancer Staging and Management App		
7	Hospital Patient Information system on App		
8	Blood bank App		
9	Need of a software for Radiation dose monitoring		
10	Cyber Attacks Threat Map		
11	Software for Face Recognition out of CCTV footages:		
12	Personnel Identification System		
13	Machine learning based control strategy development for plant status monitoring and detection of OFF-Normal conditions		
14	Head Counter		
15	Digital Public Outreach Platform For Nuclear Energy		
16	Personal radiation dosage calculator		

<b>4 Name of the Department:- <u>Department of Biotechnology</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Android version of ePromis software.		
2	Biotech Industrial Training Program app.		
3	Online feedback of participants, Guest faculty, Course Director for DBT sponsored short term training programs.		
4	Android based mobile app for identification of impersonation in exams conducted by DBT for selection of JRF/ JNU-CET / BITP.		
5	Marine bio-resources inventory app.		
6	Biotech history app highlighting landmark achievements.		
7	Android based app for quick access of R&D facilities, resources established by DBT in different institutions, Biotech Park and Incubators located in various parts of Country.		
8	Detecting common key words in project proposals submitted by Principal Investigators to different funding agencies to detect overlap.		
9	Dashboard for theme based aggregation of projects funded by DBT e.g. projects funded by different groups on tuberculosis (new drug development, diagnostic kit, vaccine etc.).		
10	Android based app for sanctioned positions, filled positions, vacancies, due to retire for efficient manpower management.		
11	Android based app for tracking purchase, use and disposal of recurring and non-recurring assets purchased by the department.		
12	Online feedback of post graduate students in biotechnology.		
13	Online attendance of post graduate students admitted in DBT supported PG programs, DBT-JRF, DBT-BITP, DBT-RA.		
14	Explore videos/expert lectures, interviews of nobel laureates, Bhatnagar awardees, Padma awardees, ted talks etc.		
15	Opportunities for fellowships at doctoral and post-doctoral level in Country and in overseas institutions		
16	Number of Ph.Ds produced in life sciences and biotechnology per year by different universities/institutions in the country.		
17	Biotechnology expertise available in different universities/institutions in the country.		

<b>5 Name of the Department:- <u>Department of Chemicals and Petrochemicals</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Inventory of Chemicals.		
2	Identification of new areas for use of plastics – how to bring about sectoral shift in usage.		
3	Skill development in Chemical & Petrochemical sectors.		

<b>6 Name of the Department:- <u>Department of Defence Production</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	To format document as per Formatting Standard adopted by DoS		
2	To transmit document across Air Gap between Internet and Intranet		
3	MD's Message Online		
4	Group Messaging Solution between Senior Exec's & MOD		
5	Negotiated price List for Regularly required products in DPSU (IT/ Non IT)		
6	Data Consolidation for information kept at 4 different servers and in 4 different formats In shipbuilding Industry		

7	Asymmetric Key Based Encryption and Authentication for File Sharing		
8	Collection and consolidation of Data through standalone files		
9	e-Log Card		
10	Biometric Authentication for Web Applications		
11	Secure Correspondence amongst stakeholders over internet		
12	HAL-Customer Data Sharing Interface		
13	Image Based Object Recognition		
14	Video Stabilization for Unmanned Aerial Vehicles		
15	Alertness App (Monitoring Tool)		
16	Secure Copier (Secure Pen drive Copier)		
17	Remote Desktop Monitoring		
18	Medical record tracking system		
19	Govt to host a ministry level, automated tender information system		
20	Development of Plug-in to the IDE to add a function as reusable code and retrieve from the reusable list of functions		
21	Development of Plug-in to find out programmers coding efficiency (Based on the compiler output)		
22	Provisioning of Group members location & Chatting		
23	Low cost asset tracking system		
24	File server solution to bring accountability of official electronic files copied on portable media		

<b>7</b>	<b>Name of the Department:- <u>Department of Empowerment of Persons with Disabilities</u></b>		
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Retrofitting the Public Transport System		
2	Bridging Digital Divide		
3	Digital solution to integrate the Scholarship Scheme with Performance		
4	Mass publicity in a simplistic manner		
5	Assistive tools for visually/hearing impair		
6	Real time monitoring		
7	Issue of Coordination among stakeholders		

<b>8</b>	<b>Name of the Department:- <u>Department of Industrial Policy and Promotion, Ministry of Commerce and Industry</u></b>		
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Online Dashboard for Monitoring Committee		
2	Develop an integrated Industries app that provides information and support to multiple industries		
3	How to raise awareness about 'StartupIndia' in Tier-III cities		

4	Mobile app Up-gradation (V2.0)		
5	An app to provide enhanced Google Alerts related to the startup ecosystem		
6	Online Dashboard for Monitoring of Incubators		
7	Enablement of Live Chat feature in Startupindia.gov.in		
8	Online Dashboard for Inter-Ministerial Board (IMB) Meetings		

**9 Name of the Department:- Department of Posts, Ministry of Communications**

	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Preventing Frauds-Analytical Tool		
2	Barcodes for Dual Purpose		
3	Tracking the Last Mile		
4	e-commerce parcels-MIS and KPI		
5	Self announcements by hardware-Inventory Management		
6	Geo tagging		
7	Monitoring of bandwidth Performance		
8	Network Monitoring		
9	Predicting the Delivery of the article		
10	Information for the First Mile or acceptance point		
11	Bag Tracking and Alert Systems		

**10 Name of the Department:- Department of Rural Development (DRD)**

	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Conference room booking system across multiple ministries/departments in different buildings		
2	Intruder detection on computers		
3	Ensuring free flow, uninterrupted, regular internet bandwidth usage at all times for using internet for official work and limiting available bandwidth for accessing other internet sites/urls		
4	Assessment of all computers for pirated and unauthorized software/s installed on system		
5	System generating the total no of people eligible for receiving pensions under NSAP (Indira Gandhi National Old Age Pension Scheme) but are not included (area wise)		
6	Provision for a centralized one stop source for information about all government programs/schemes drillable to village level for SAGY.		
7	System for efficient and transparent process of buyer-seller interactions, provision for creating niche product offerings for SHG groups for all areas		
8	Improving the existing employment framework/mechanism for skilled people		
9	An app/IVRS solution for DDU-GKY beneficiaries		
10	An android application solution for mobilization/Identification of Beneficiaries		
11	Detection of plagiarism and other fraudulent activities in post Placement related documents		
12	Verification of placement status (employment type, location etc.) after a candidate is placed under DDU-GKY program		

13	Mechanism to help rural people to self select for receiving benefit offered under Govt. scheme.		
14	Payment process streamlining along with solution for Last mile Delivery mechanism for various programs/schemes such as PMAY(G) and MGNREGS		
15	Real time visualization of location wise financial transactions (volume and amount) for various schemes [such as PMAY(G), MGNREGS, PMGSY, NRLM, DDU-GKY]		
16	Alignment between various location structures and common location mapping between SECC, LGD and various applicable schemes		
17	A one stop source of Information interface with visualization display of performances, key indicators and other relevant statistics for schemes under MoRD		
18	System to auto – evaluate and assess the work completed for a particular work (in progress) and eliminate need for physical verification of work being completed		
19	Algorithm/Mechanism for analyzing and estimating % match level for similar data column/s values (e.g. Name) in multiple DBs (e.g.: MGNREGS and AADHAR)		
20	Mechanism to effectively track and capture Attendance on work sites for MGNREGS workers using IRIS based attendance monitoring system		
21	Develop a system that enables any person in rural area to proactively demand for work required to be done (under MGNREGS recognized work classifications)		
22	Procedure to self verify, update/correct individual details captured during earlier surveys for PMAY(G) program		
23	Multi Hazard visualization as per location selected by Individual		
24	Provide easy and real time access of information on housing typologies for area selected by Individuals for House construction.		

<b>11 Name of the Department:- <u>Department of Science and Technology</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Smart Networks for Renewable Integrated Sources for stand alone Microgrids		
2	Digital Technologies /MIS for monitoring Water Quality Management in water supply network at district level		
3	Aggregation of latest nation – wide startup scenario in a dynamic/real time mode		
4	Know your incubator through a digitised platform		
5	Corporate connect platform for startups		
6	Discovery platform of startups		
7	Digitised Platform /Automatic Response platform for handling Parliament Questions		
8	Managing visitors to Science Express		
9	Gaming, Apps, etc. for the elderly		

<b>12 Name of the Department:- <u>Indian Council of Medical Research (ICMR)</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Solutions for Health Account Scheme to be more user friendly		
2	Tracking tuberculosis through a sensor based GPS enabled technology		
3	Creating awareness for stroke through gaming : Time is Brain		
4	Interlinking studies on Bhopal Gas Victim		
5	A tracking system for migrant workers working in silica exposed working environment		
6	Automated MeSH annotation of text using machine learning		
7	A tool for reporting publications from ICMR funded research		

8	Data security		
9	A portal for finding call for proposals from various health research funding agencies		
10	A tool for Mining MEDLINE/Pubmed for identifying subject Experts		
11	To monitor the logistics of cold chain in immunization programme		
12	Monitoring in Occupational health		
13	High precision speech to text converters with language translators for use in Electronic Patient Record software		
14	Texture and cell organlees analysis to identify potential cell abnormalities		
15	Identifying cell boundaries from video data		
16	Pipeline for developing pangenome from short-reads		
17	Interactive Application mapping pin codes of entire country		
18	To create a repository for equipments under ICMR's intramural program		
19	Improving malaria surveillance in hard to reach areas		
20	Development of an automated reminder system for cervical cancer screening in HIV patients		
21	Tablet based 'App' for collection of community health data		
22	To Collect and Analyze Vital Statistics events of the Civil Registration System(CRS) : Real time transfer of Birth and death information from rural area to server/central level through APP		
23	To develop Acute Coronary Syndrome Risk Predicting model using MACE sample data		
24	Development of App for Data Collection in Management of Acute Coronary Event Registry		

<b>13</b>	<b>Name of the Department:- <u>Indian Space Research Organisation (ISRO)</u></b>		
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Develop a solution for Document tracking within an organization network		
2	Develop a solution for protecting photocopy of Highly Confidential Documents		
3	Design a solution to detect Physical Intrusion detection		
4	Design a solution to restrict usage of public mailing service from government infrastructure		
5	Develop a solution to detect backdoors in network routers		
6	Develop a solution to detect backdoors in components of enterprise infrastructure		
7	Develop an efficient spear phishing mail detection system		
8	Implement secure data transfer using steganography		
9	Detection and prevention of data upload on Internet		
10	Data leakage detection and prevention of confidential documents		
11	Implement a solution which preserves Secret and Top Secret Documents		
12	Secure distribution of restricted documents outside the organization		
13	Building Trusted Execution Environment for Linux		
14	Develop a cloud based centralized repository for distribution, management and updating of cyber security tools for government organisations.		

15	Detecting Virus Spread through Network Connection		
16	Simulate Virus Spread through Network Connection		
17	Develop a solution for protecting App distribution		
18	Develop an Add-on for any popular open-source VPN solution for improving the security of authentication		
19	Develop a person identification system using key stroke dynamics		
20	Design a Network level Application Layer Firewall		
21	Work out novel approach to implement honey pot/net/service/app in real live surfing environment to detect attack or/and machine compromise.		
22	Develop a solution to detect payloads generated by tools like veil-evasion		
23	Demonstrate a Proof of Concept of an exploit kit		
24	Design a solution to detect Arp-spoofing attacks originating within a network		

<b>14 Name of the Department:- <u>Ministry of AYUSH</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Centralized online status of all registered medical practitioners of AYUSH system.		
2	Reporting of side effects of Ayurveda, Unani, Homoeopathy & Siddha Medicines.		
3	Real time monitoring of various projects funded by the Ministry of AYUSH		
4	Online submission of grant applications and their real time status		
5	APP for Ministry of AYUSH		
6	Assessment of Prakriti (Body genomics constitution)Based on Image processing technology		
7	Quick diagnosis of Skin diseases		
8	Geographical Location and identification of Medicinal Plants		
9	Monitoring system for drug manufacturing units of the country		
10	Online registry system for the research topics of PG /PhD /research projects		
11	Database and status of various labs/equipment/machine utilized for quality control. Safety and efficacy assessment of ASU & H drugs		
12	Tracking of endangered species of Medicinal plants		
13	GAMES for propagating AYUSH systems of medicine		
14	Online consultation from AYUSH experts of various Institutes & Hospitals		
15	Real time dashboard for tracking manpower (officers/employees) within the Institute as well as faculty of various AYUSH institutions of the country.		

<b>15 Name of the Department:- <u>Ministry of Development of North Eastern Region (DoNER)</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Skill Development training for unemployed youths of North Eastern Region		
2	Technology innovation in North Eastern Region		
3	Information regarding activities of various in Ministries/Departments in North Eastern Region		



4	Real time information dissemination to the people of NER		
5	Keeping track of health of cancer patient through app based system to provide health care services online		
6	Making project portal of NLCPR user friendly.		
7	Monitoring of Roads and Projects through Space Technology		
8	Explaining the famous products of NER		
9	Promoting Games/App		
10	Centralized portal for in North Eastern States.		
11	Development of Dynamic website of MoDoNER		

<b>16 Name of the Department:- <u>Ministry of Earth Sciences</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Intensity map generation		
2	Map plotting of earthquake		
3	Data Processing and issue of earthquake messages		
4	In-house software test bench for application security.		
5	Print Management Software.		
6	Software for system hardware inventory.		
7	To track list of software installed in the PC's / Workstation's attached to the network.		
8	Software solution for E-Mail Load Balancing		
9	Encryption & Decryption Hacks		
10	Software to track any new IP assigned and joins the network other than the approved list of IP's.		
11	Port Management Software		
12	Digitalization of Andaman Biodiversity information		
13	Integrated portal for Coastal Ocean Monitoring and Prediction System		
14	Development of marine biodiversity information portal		
15	Marine Bio-Diversity Web and Mobile Application		
16	Pattern recognition algorithm to identify marine animals.		
17	Video Compression algorithm for GSM & Satellite telemetry		
18	Parallelization of Tunami Application		
19	To build a n sided m dimensional polyhedron with least volume		
20	Real-time data processing and dissemination		
21	Ensuring timely dissemination of INCOIS services through mobile App with added features on gaming & feedback collection		
22	A Standalone application for Generation of Tuna Fishing Advisory		
23	Real Time Satellite Imagery dissemination app		

24	Subset Wizard along with Data Format Conversion Utility		
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<b>17 Name of the Department:- <u>Ministry of Electronics and Information Technology (MeitY)</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Designing of product specific product development cycle based on manufacturing model (business and technical) of the product. Product development cycle time needs to be minimized for the problem.		
2	Create a program for year-wise listing of work done by researchers related to keyword input on web. Output should have country tags, institution tag and any other tag that could be provided to program through input.		
3	Classroom optimization, Laboratory optimization & Optimization of other resources		
4	Kids, adults and internet awareness. Kids educational apps		
5	Automated questionnaire and test for basic cyber security learning for senior non-technical officers.		
6	Lack of Cyber Security Awareness among Students in technical institutions		
7	Lack of Testbed for cyber security experiments		
8	Making of virtual environment for practicing cyber forensics learning.		
9	Lack of Secure channel for communication among cyber security experts		
10	Problems faced in crypto domain		
11	App for monitoring the work done in Swachh Bharat Mission (GIS based)		
12	Automation in preparation of the tender documents		
13	Online submission and processing of telephone and newspaper bills		
14	Easy Navigation System for Visually Impaired Persons		
15	Digital Rights Management System		
16	Designing of geo-spatial tracking of Electronic and Electrical Equipments (EEE) for implementation of producer responsibility in Electronic Waste Rules 2016		
17	Accurate detection of impersonation in online examination		
18	Networking (Inter-Connected) Healthcare Technology		
19	National Disaster Mitigation Plan (Drought, Floods and Cold Wave/Frost)		
20	Security Surveillance System (Video Surveillance / Analytics)		
21	Electronic Personal Safety System		

<b>18 Name of the Department:- <u>Ministry of Environment, Forests &amp; Climate Change</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Local level natural resource mapping and management for sustainable development.		
2	Local level carbon sequestrations to mitigate Climate Change.		
3	Mechanism to evaluate harmful radiation levels in working environment on human society and suggest measures to improve conditions.		
4	Prediction of rain and local weather based on the available 100 years of rainfall data and modeling a farmer support system.		
5	Documentation and use of 'Traditional Ecological Knowledge' to conserve 'Sacred Groves' in India.		
6	Assessment of effect of tourism on local biodiversity in Protected Areas.		

7	Mechanism to evaluate Human-Wildlife conflicts in forest areas and develop technologies to mitigate the conflict issues.		
8	Evaluation of Health Hazards and management of electronic wastes.		
9	Digital solutions for `Smart Transport` restructuring to reduce air pollution in any city.		
10	Digital solutions to control and manage noise pollution.		
11	Planning solid waste management for any urban area/ housing colony.		
12	Digital solutions to evaluate the pollution and pressure on wetlands and water bodies and its conservation.		
13	A surveillance system for air pollution monitoring, warning and management .		
14	Water usage audit of household/agricultural/industrial sectors and management plans.		
15	Evaluate the potential and develop a mechanism to promote alternative energy harvesting and usage.		
16	Mechanism to do the household/agricultural/ industrial/public energy auditing and management for sustainable development.		
17	Digital solutions for the sustainable harvest of local vegetation biomass around villages.		
18	Decentralized water harvesting solutions for villages and urban areas.		
19	Digital solutions to restore degraded forests in India.		
20	Digital plan for restoration of a dying river in India.		
21	National monitoring of flowering and fruiting of important tree species to assess the Climate Change.		
22	Monitoring migratory bird population in India which is an indicator of Climate Change.		
23	Common Bird Monitoring as indicator of changing landscapes.		
24	Digital field guides/ mobile apps for field identification of butterflies.		

<b>19 Name of the Department:- <u>Ministry of External Affairs</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Devising a software for deployment of software on cloud through the SSH mode		
2	Restoration of file in the Linux root file system		
3	Email spoofing detection		
4	Accessing the virtual dashboard of cloud application independent of the browser and operating system of the remote computer		
5	Mapping of ports on Network		
6	Identifying and locating the suitable versions of Linux Kernel deployed with particular RHEL for SMTP & Pop 3 mail configuration		
7	Mechanism to monitoring the Google DNS Server forwarding links		
8	Devising a cost effective application for data mining and data analytics		
9	Securing the data transition between domestic and international networks		
10	Ensuring access of email and notes in the smart phones		
11	Ensuring the Smartphones and its applications from any cyber attacks		
12	Provisioning of geo-tagging information with the e-Governance applications accessed globally		
13	Full-proof security (end-to-end) and data security between two web applications over the networks		

14	To monitor the pilferage/leakage of the data from the applications hosted on the cloud		
15	Ensuring the security of all applications particularly the communication data on the local machine		
16	Application to evaluate the operating systems vulnerability particularly Linux operating system		
17	Presently, there is no application for scanning the remote cloud and its several associated components to examine the level of vulnerability of the system from the Cyber security point of view		
18	Ensuring the security of web applications hosted on the GI Cloud (Meghraj)		

<b>20 Name of the Department:- <u>Ministry of Food Processing</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Campaign on Facebook page for promoting processed food		
2	Spread sheet model for estimating wastage periodically		
3	Spread sheet model for estimating processing levels periodically		
4	An app to match fortification ideas and nutrients blending technologies		
5	Dashboard of information for foreign investors to invest in retail food chain		
6	App for industry to post R&D requirements for reaching out to R&D Institutions		
7	Window on website to upload traditional food recipes for commercial development		
8	App of small videos on food processing techniques for farmer community		
9	Window on Ministry's website to upload data on KPI of Abattoirs		
10	Window on Ministry's website to upload data on KPI of Cold Chain Projects		
11	Window on Ministry's website to upload data on KPI of Mega Food Parks		
12	A dashboard for foreign investors to decide locations for setting up FPIs		
13	A dashboard to connect FPI with importers		
14	App to connect FPI directly with Domestic Retailers		
15	App to connect Farmers directly with Retailers and Food Processing Industries		

<b>21 Name of the Department:- <u>Ministry of HRD</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	App for Monitoring of the Examination System		
2	App for Intelligent Document Management system and retrieval		
3	App for Stock Inventory of the Material Production and Distributio		
4	Learning Mobile App for the Learners with Disability may be developed		
5	Integrated Mobile App for Tracking of the Job assigned to various officials as well as correspondence		
6	Digitization of the Personnel Record		
7	Complain/Feedback Redressal Mechanism		
8	Online Accreditation System		

9	Monitoring of Personal Contact Programs (PCP)		
10	Solution for making certification of online courses authentic at par with offline certification		
11	Solution to prevent copy right infringement/piracy/plagiarism of NCERT text books		
12	Tool to evaluate the descriptive questions		
13	Software tool for evaluating performance of teachers by student		
14	Tool for online career counseling		
15	Software tool to assess the learning achievement of students		
16	Prevention of Impersonation		
17	Standardization of Marks		
18	Standardization/Grace Statistics		
19	Evaluation of Answer book		
20	Image Data Processing and Evaluation		
21	GIS based examination centers allocation and search		

<b>22 Name of the Department:- <u>Ministry of Railways</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Mapping Beneficiaries of Health Services		
2	Energy Efficiency		
3	Website security		
4	Analysis of Train wise Earnings		
5	Integration of multiple Railway websites		
6	Virtual Tour of Railway Station		
7	Unification of Railway Apps		
8	Disaster Preparedness		
9	Involving Passengers in Upkeep of Railway Stations		
10	Management of Railway Rest Houses & Holiday Homes		
11	Condition of Rail Bridges		
12	Management of GUI based Multilevel Numbered List		
13	De duplication of Price List Numbers		
14	Travel Planner App		
15	Accidents at Unmanned Level Crossings		
16	Ticket Checking System		
17	Preventing Untoward Incident		
18	Telecom Connectivity		

19	Signaling		
20	Maintenance of Coaches & Wagons		
21	Tracking of Individual Package Booked in Parcel & Luggage		
22	Waste Management		
23	Energy Utilization		
24	E-ticketing		

<b>23 Name of the Department:- <u>Ministry of Road Transport and Highways</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Weight of vehicle		
2	Potential of Digilocker		
3	Games on Transport		
4	Flyover		
5	Mobile & Tour bills reimbursement		
6	Leave management system		
7	Traffic on road		
8	Pollution check		
9	Grocery Stores/Restaurants		
10	INAM-Pro mobile app		
11	INFRACON mobile app		
12	Area speeding check		
13	Bypass		
14	Online appointment		
15	Geo Tag all department offices		
16	Police booth		
17	Petrol pump		
18	Nearest Public Transportation facilities		
19	Nearest railway station		
20	Public Toilets		
21	Mobile Mechanic		
22	Online Toll payment system		
23	Emergency care services/Hospitals		
24	Ambulance Service on National Highway		

<b>24 Name of the Department:- <u>Ministry of Skill Development &amp; Entrepreneurship</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Application Software – for Training Facility Management, Noida and Guwhati		
2	Entrepreneurship Facilitation Services Processing Centre		
3	PWD (Divyang) user friendly Entrepreneurship Support & Facilitation Ecosystem		
4	National Entrepreneurship Internship Exchange		
5	Easy solutions for doing BIG DATA analysis		
6	Technological solution for recognition of prior skills in informal sector		
7	On-line skill test in every sector for every level of skill		
8	E-library and digitized didactic cell for all instructional materials, Question/Answers Bank and trouble shootings		
9	National E- portal for distance learning in skill training in each sector		
10	E-information/ Technology platform for standardized building layout and space allocations for shop floors		
11	Developing Software for sector specific professional licenses for skill trainers		
12	Creation of E-information Cell for providing Skill training related information which can be disseminated to all schools for providing necessary career guidance.		
13	Creation of App for obtaining the status of regular up-gradation of it is		
14	E- portal for processing application, registration, inspection and providing status report on affiliation of it is		
15	Leveraging Project LOON by GOOGLE for spreading awareness of skill programs		
16	MIS for coordination of various departments in GoI		
17	Platform for helping youth make informed decisions on career choices in the vocational sector		
18	App to track Migration trends to find skill requirement		
19	Skill India App		
20	Platform to track workforce requirement		
21	Technology platform for spreading awareness about PMKVY scheme among masses.		
22	PMKVY Employers App		
23	PMKVY Dynamic Training Calendar App		
24	Skill Games		

<b>25 Name of the Department:- <u>Ministry of Steel</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Transfer of employees HR data from one SAIL Plant to other SAIL plant		
2	Application for monitoring deployment of manpower by contractors		
3	Application to restrict conversion of Pdf/tiff drawings in other formats		
4	Software to calculate area, volume etc. of a geometric shape and to provide a 3D AutoCAD compatible drawing		
5	Bank Reconciliation Problem for multiple types of statement generated by different banks		

6	System to provide information of Software /OS installed in computers		
7	Mobile apps to monitor office network		
8	Migration from IPv4 to IPv6		
9	Hacking of Website		
10	Email Hacking and identity compromise		
11	Email Spam Problem		
12	Identifying phishing emails and not responding/clicking of any unwanted link or attachment		
13	Identifying Phishing and fraud sites		
14	Accessing server data without storing in local devices		
15	Common Communication Platform for Ministry to PSU's and PSU's to PSU's		
16	Common feedback System for vendors, customers & general public		
17	Electronic Document Management System		
18	Mobile apps for project monitoring		
19	Solar Panel for all tall buildings		
20	Automatic System to Power-off Street light in day time/ Powering off alternate street lights at Mid Night		
21	Mobile App for reducing power theft.		
22	Online Validation of Test Certificate of products in steel plant		
23	Online Railway Receipt from Indian Railway		
24	Railway Wagon number Tracking in Steel Plant		

<b>26 Name of the Department:- <u>Ministry of Tourism</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Any other path breaking technological solutions that would catapult India as the number one tourist destination for global travelers.		
2	Programme to monitor proposals pending with other Ministries and Departments at a glance.		
3	Smart application for monitoring and tracking applications received and funds released under Market Development Assistance Scheme to service providers of the Ministry of Tourism.		
4	Smart solution for monitoring and to take follow up action with tour operators and decision makers after participating in various leading Travel Exhibitions / fairs / Marts / Expos, etc.		
5	Creating Incredible India Mobile App 2.0 version to make it most effective and sought after application.		
6	Application for providing company profile of wholesaler / retailer tour operators overseas with details such as brochure support, joint advertising support, hospitality guests sent, etc.		
7	Smart Solution for monitoring publicity returns of Travel Writers / Journalists / TV Team, etc. invited under the hospitality scheme of the Ministry of Tourism for providing publicity for India.		
8	Application for sourcing content and relevant information from various websites of Tourism Departments of State Governments and Union Territory Administrations in India.		
9	Solution for real time monitoring & tracking of projects and utilization of funds sanctioned to State Governments & Union Territory Administration under PRASAD Scheme of the Ministry of Tourism.		
10	Solution for real time monitoring & tracking of projects and utilization of funds sanctioned to State Governments & Union Territory Administration under Swadesh Darshan Scheme of the Ministry of Tourism.		
11	Application for real time monitoring of daily expenditure (accounts) of India Tourism Offices in India and overseas		
12	Creating a dashboard for real time monitoring of performances by 14 India Tourism Offices located overseas based on Annual Action Plan of the concerned offices.		



13	Creating a dashboard for real time monitoring of performances by 20 India Tourism Offices located in India, based on their Annual Action Plan.		
14	Developing Virtual Tour on the themes Cuisine, festivals, etc.		
15	Developing an algorithm for impact analysis of various publicity campaign being undertaken by the Ministry of Tourism in the Print Media, TV, Online and Social Media.		
16	Mobile application for mapping wildlife sanctuaries / National Parks / Bird Sanctuaries with requisite travel information useful for tourists.		
17	Application for mapping of trekking routes in the Himalayas giving details of accommodation facilities, banks, hospitals, eateries, real-time information on weather and other relevant information required for trekkers.		
18	Smart solution for providing commentary of exhibits in Museum in India.		
19	Developing Offline City Maps of important cities in India.		
20	Developing a Live Tourism Map of India		
21	Development of simple, user friendly and effective application for safety and security of single woman traveler in India. Application should be compatible on all platforms.		

<b>27</b>	<b>Name of the Department:- <u>NCPCR</u></b>		
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Achieving the indicators setup by NCPCR for Child Friendly Villages to improve the status of children across the country.		
2	Trained and qualified Counsellors in Child Care Institutions and in Schools		
3	Digitalization of Monitoring Mechanism of Anganwadi Centres (AWCs)		
4	Grievance Redressal Mechanism related to Child Health and Nutrition at NCPCR		
5	Developing an automated Grievance Related Mechanism		
6	Monitoring of children in Child Care institutions (CCIs)		
7	Awareness regarding Skill Training protocols developed by National Skill Development Council		
8	Nutritional value of MidDay Meal served in government schools		
9	Admission of students under Section 12(1)(c) of RTE Act, 2009		
10	Orientation on Standard Operating Procedure (SOP) on Street Children		
11	Child rights violation related news on one portal		
12	Information on all child related Acts on one platform		
13	Implementation of Protection of Children from Sexual Offences (POCSO) Act, 2012		
14	Functioning of School management Committees		
15	Reporting infrastructure related complaints in schools		
16	Sensitisation and monitoring of School Safety and Security Manual		
17	Drop-out of children of migrant families from school		
18	Non-availability of teachers in government schools		
19	Real-time school attendance of children and teachers in schools all over India		

<b>28</b>	<b>Name of the Department:- <u>Students' Voice</u></b>		
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>

1	Do you have ideas to solve most daunting problems of India?		
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<b>29 Name of the Department:- <u>University Grants Commission (UGC)</u></b>			
	<b>Problem Statement</b>	<b>Mentor - I</b>	<b>Mentor - II</b>
1	Mapping College Neighbourhood and Social Possibilities		
2	Continuous monitoring of the programmes		
3	Identification of Fake Universities.		
4	Monitoring the combined data of IUCs/MCs/NFCs to ensure timely action/disposal.		
5	Immediate response by IUCs/MCs/NFCs.		
6	To have a common repository of data		
7	To make the system responsive		
8	Replacing the costly and time-consuming method of evaluation		
9	Online receipt of applications/proposals		
10	How to Check the duplicity of Research Projects submitted to various funding agencies.		
11	Creating college dashboards for UGC		
12	Digital platform on facilities and resources on different disciplines across the country		
13	Documenting novel solutions and innovations in Education- An App		
14	Making the Internal database of UGC Bureau/offices adaptable to the Payment Gateway (PFMS)		
15	Integrating different digital platforms providing information on Higher Education to the public		
16	Internal Research Management Systems for institutions		
17	UGC Digital Curation Platform for Research Outcomes		
18	UGC Schemes Outcomes Analyzer		
19	Academic Time-Table Management Tool under CBCS		
20	Institutional Funding Operational Management Solution		