



MHRD



रामभाऊ म्हाळगी प्रबोधिनी  
Rambhau Mhalgi Prabodhini

# SMART INDIA HACKATHON 2018



## WORLD'S BIGGEST HACKATHON!!

Media Partners





WE ARE PLEASED TO INVITE YOU  
TO JOIN  
**THE GRAND FINALE**  
OF  
WORLD'S BIGGEST HACKATHON!!

Regards,

**Shri. Prakash Javadekar**

Hon'ble Minister of HRD, Government of India  
Chief Patron, Smart India Hackathon 2018

**Dr. Satya Pal Singh**

Hon'ble Minister of State for HRD (Higher Education)

**Shri. R. Subrahmanyam**

Secretary, MHRD

**Prof. Anil D. Sahasrabudhe**

Chairman, AICTE &  
Smart India Hackathon 2018

**Shri. Vinay Sahasrabuddhe**

Director General,  
Rambhau Mhalgi Prabodhini  
Patron, Smart India Hackathon 2018

**Dr. Anand Deshpande**

Founder, MD & CEO, Persistent  
Systems, Co-Chairman,  
Smart India Hackathon 2018

**Dr. Arun Jamkar**

President, i4C

**Dr. Abhay Jere**

Organizing Secretary,  
Smart India Hackathon 2018

**Prof. Dileep N. Malkhede**

Advisor, AICTE & Executive Secretary,  
Smart India Hackathon 2018



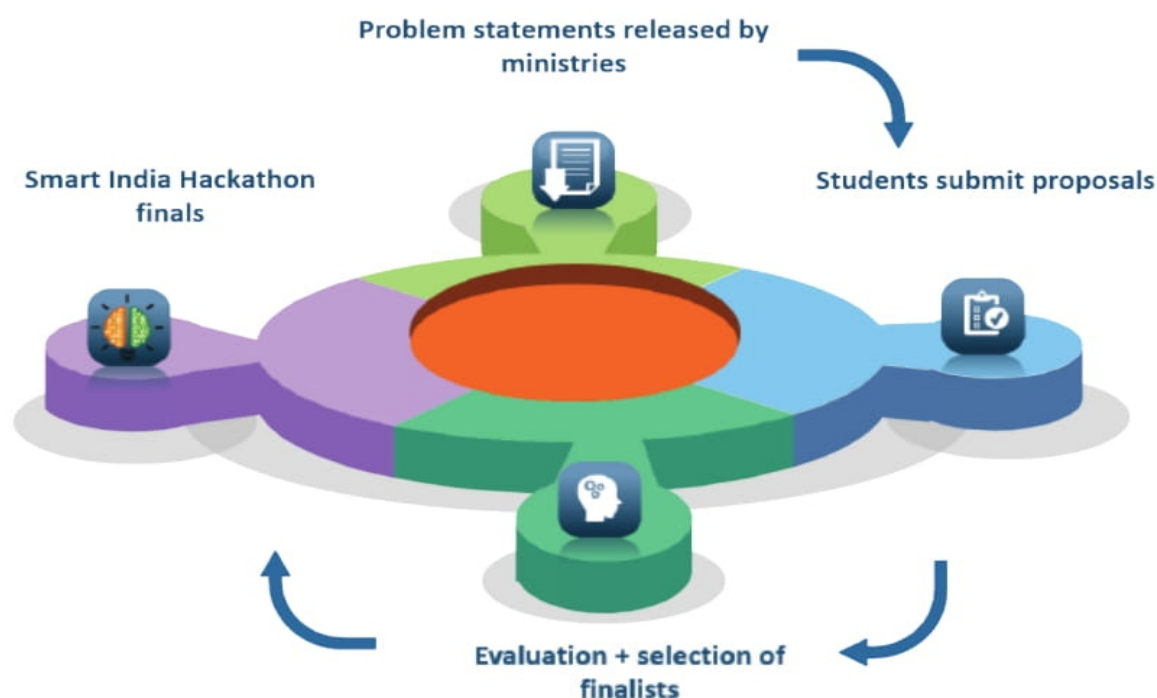
# World's Biggest Open Innovation Model !!

To reiterate the efforts towards our PM's vision, All India Council for Technical Education (AICTE), Inter Institutional Inclusive Innovation Center (i4c), and Persistent Systems is proud to propose the 2nd edition of this initiative- Smart India Hackathon 2018.

Smart India Hackathon 2018 is a non-stop digital product development competition, where problems are posed to engineering students for innovative solutions. It...

- Harnesses creativity & expertise of students
- Sparks institute-level hackathons
- Builds funnel for 'Startup India' campaign
- Crowdsource solutions for improving governance and quality of life
- Provide opportunity to citizens to provide innovative solutions to India's daunting problems

## How it works?





SMART INDIA  
HACKATHON '17



# Smart India Hackathon

## 2017 (Last Event)

### At a Glance

#### Our Reach



598

Problem  
Statements

29

Ministries &  
Departments



3 Million+

Technical  
students reached



17

Nationwide  
Leadership sessions



10

Nationwide  
Training sessions

#### Nationwide Phenomenal Response



26

Nodal Centers



1200+

Institutions



7531

Ideas



390

Evaluators



45,168

Students

#### Grand Finale



1168

Nationwide Finalist  
Teams Selected

40+

Teams Competing  
in each Ministries



135

Winners



29

Persistent  
Inspiration Award



19

Deloitte  
Innovation Award

## Post Hackathon

57

Proposals

Out of total 135 Prize winners, 57 teams selected for further development by 17 ministries for adopting.

Proposals ready for deployment by April 2018 with respective ministries.

27

Proposals

Organizers







THIS YEAR WE HAVE

**HARDWARE & SOFTWARE**

EDITIONS

**2018**



**27**

Union Ministry &  
Departments



**17**

State  
Ministries



**16,700+**

Ideas  
Received



**408**

Problem  
Statements

Reach millions of youth and households via an inspiring media campaign to celebrate the emergent, digital, smart India!

Combination of development and service relationship required to ensure success in the market. Smart India Hackathon is the right fit in such space



**07**

Nationwide  
Training sessions



**1,315+**

Participating  
Institutions



**1,00,000+**

Participating  
Students

Creative, visionary and driven organizations who have come together to empower the youth and undertake this ambitious mission

Organizers



**MHRD**



Partners

**Deloitte.**



**DEVNET**

**KPIT**



Media  
Partners



Social Media  
Partner



Communication  
Partners



# 30<sup>TH</sup> AND 31<sup>ST</sup> MARCH, 2018

## VENUE

### NODAL CENTERS SPREAD ACROSS INDIA

Sr. No.	City	Center Name & Address	Ministry
1	Kanpur	<b>PRANVEER SINGH INSTITUTE OF TECHNOLOGY</b> NH-2 Kanpur Agra National Highway, Bhauti, Kanpur, U.P.	<b>Ministry of Water Resources, River Development &amp; Ganga Rejuvenation</b>
2	Varanasi	<b>BANARAS HINDU UNIVERSITY</b> Vibhuti Narayan Indoor Stadium, Banaras Hindu University Main Campus Varanasi-221005	<b>Ministry of Water Resources, River Development &amp; Ganga Rejuvenation</b>
3	Noida	<b>JSS ACADEMY OF TECHNICAL EDUCATION</b> C 20/1, Sector 62, Noida, Uttar Pradesh-201301	<b>Ministry of HRD</b>
4	Greater Noida	<b>NOIDA INSTITUTE OF ENGINEERING &amp; TECHNOLOGY,</b> 19, Knowledge Park-II Institutional Area, Greater Noida	<b>Ministry of HRD</b>
5	New Delhi	<b>NEW DELHI INSTITUTE OF MANAGEMENT</b> 60,50 (B & C), Tughlakabad Institutional Area, Delhi-62	<b>All India Council for Technical Education</b>
6	Ahmedabad	<b>GUJARAT TECHNOLOGICAL UNIVERSITY, GTU</b> Shivanand Ashram, Opp. ISRO, Satellite Road, Ahmedabad, Gujarat-380015	<b>Department of Space (ISRO)</b>
7	Udaipur	<b>TECHNO INDIA NJR INSTITUTE OF TECHNOLOGY,</b> Udaipur Plot T, Bhamas (RIICO) Industrial Area, Kaladwas, Udaipur, Rajasthan-313003	<b>Ministry of Railways</b>
8	Bhopal	<b>SAGAR INSTITUTE OF RESEARCH &amp; TECHNOLOGY</b> OPP. SAGAR ESTATES, AYODHYA BYPASS ROAD, BHOPAL, Madhya Pradesh-462041	<b>Ministry of Social Justice and Empowerment</b>
9	Bengaluru	<b>SRI VENKATESHWARA COLLEGE OF ENGINEERING</b> Vidyanagar, KIA Road, Bettahalsur Post, Bengaluru-562157	<b>Ministry of Defence</b>
10	Pune	<b>COLLEGE OF ENGINEERING</b> Wellesly Road, Shivajinagar, Pune-411005	<b>Students' Innovation</b>
			<b>Miscellaneous</b>
11	Pune	<b>NATIONAL CHEMICAL LABORATORY, PUNE</b> Digital Information Resource Center, CSIR - National Chemical Laboratory, Dr. Homi Bhabha Road, Pashan, Pune-411008	<b>Council of Scientific and Industrial Research</b>
12	Chandigarh	<b>CHANDIGARH ENGINEERING COLLEGE</b> Greater Mohali Sector 112 V.P.O. landran, Tehsil- Kharar, Distt. Mohali-140307	<b>Ministry of Agriculture &amp; Farmers Welfare</b>
13	Guwahati	<b>GIRIJANANDA CHOWDHURY INSTITUTE OF MANAGEMENT &amp; TECHNOLOGY,</b> National Highway 37, Near Borjhar Airport, Hatkhowapara, Azara, Guwahati, Assam-781017	<b>Ministry of Tribal Affairs</b>
14	Kurnool	<b>BRINDAVAN INSTITUTE OF TECHNOLOGY AND SCIENCE,</b> N.H.-7 Peddatekur, Kurnool-518218, Andhra Pradesh	<b>Ministry of Power</b>
			<b>Ministry of Coal</b>

## NODAL CENTERS SPREAD ACROSS INDIA

Sr. No.	City	Center Name & Address	Ministry
15	Indore	<b>ORIENTAL UNIVERSITY</b> Opp. Rewati Range Gate no.1, Shri Aurobindo Sanwer Road, Jakhiya, Indore Madhya Pradesh-453555	Ministry of Women and Child Development
16	Mumbai	<b>WELINGKAR INSTITUTE OF MANAGEMENT DEVELOPMENT &amp; RESEARCH</b> Lakhamsi Napoo Road, Opp Matunga Gymkhana, Matunga, Mumbai-400019	Ministry of Consumer Affairs, Food and Public Distribution
			Ministry of Commerce & Industry
17	Nagpur	<b>SHRI RAMDEOBABA COLLEGE OF ENGINEERING AND MANAGEMENT</b> Ramdeo Tekdi, Katol Road, Nagpur, Maharashtra-440013	Ministry of Road Transport & Highways
18	Nagpur	<b>YASHWANTRAO CHAVAN COLLEGE OF ENGINEERING</b> Wanadongri, Hingna Road, Nagpur-441110	Ministry of Road Transport & Highways
19	Hyderabad	<b>CVR COLLEGE OF ENGINEERING</b> Vastunagar, Mangalpalli (V), Ibrahimpatan (M), Ranga Reddy Dist, Telangana-501510	Ministry of Electronics & Information Technology (MEITY)
20	Hyderabad	<b>CMR COLLEGE OF ENGINEERING &amp; TECHNOLOGY,</b> Kandlakoya Village, Medchal Mandal, R.R District, Hyderabad-501401	Ministry of Electronics & Information Technology (MEITY)
21	Jaipur	<b>JAIPUR ENGINEERING COLLEGE &amp; RESEARCH CENTRE (JECRC)</b> JECRC Campus, Shri Ram ki Nangal, via Sitapura RIICO, Opp EPIP Gate, Tonk Road, Jaipur-302022	Ministry of Information and Broadcasting
22	Hubli	<b>B V BHOMARADDI COLLEGE OF ENGINEERING AND TECHNOLOGY</b> Vidyanagar, Hubballi, Karnataka-580031	Ministry of Statistics & Programme Implementation
23	Bhubaneswar	<b>C. V. RAMAN COLLEGE OF ENGINEERING,</b> BIDYANAGAR, MAHURA, JANLA, Khordha, Bhubaneswar, Odisha-752054	Ministry of Skill Development & Entrepreneurship
24	Coimbatore	<b>SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY</b> Sugunapuram, Kuniamuthur Post, Coimbatore-641008	Ministry of Environment, Forests & Climate Change
25	Kolkata	<b>TECHNO INDIA KOLKATA</b> EM-4/1, SECTOR-V, SALT LAKE, KOLKATA, West Bengal-700091	Ministry of Health & Family Welfare
26	Kolkata	<b>GURUNANAK INSTITUTE OF TECHNOLOGY</b> 157/F, Nilgunj Road, Panihati, Sodepur, Kolkata, West Bengal -700114	Ministry of Health & Family Welfare
			Ministry of Ayush
27	Panipat	<b>PANIPAT INSTITUTE OF ENGINEERING &amp; TECHNOLOGY</b> 70KM Milestone, NH-1, Village Pattikalyana, Samalkha, Panipat, Haryana-132102	Ministry of Communications
28	Chennai	<b>R M K ENGINEERING COLLEGE</b> Chennai RSM Nagar, Kavaraipettai, Gummidipoondi Taluk, Tamil Nadu-601206	Ministry of Urban Development

Ministry/ Department	Some of the problem statements
<b>MINISTRY OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION</b>	<ol style="list-style-type: none"> <li>1) Risks of overuse and contamination of Ground water.</li> <li>2) Census of artificial recharge structures</li> <li>3) Know your Back Yard and Farm Yard</li> <li>4) Preparation of Aquifer Vulnerability Maps for Upcoming cluster/township</li> <li>5) Awareness on Aarsenic contamination in ground water</li> <li>6) Collection of water quality data observed by private organizations</li> </ol>
<b>MINISTRY OF HRD</b>	<ol style="list-style-type: none"> <li>1) Academic scheduling in a college with multiple courses, multiple disciplines based on the staff's availability</li> <li>2) Artificial intelligence used system to identify the level of understanding and provide learning as per the requirements of the student</li> <li>3) Crowd Sourcing model for preparing large question banks.</li> <li>4) Development of mental health of the students for betterment</li> <li>5) Development of Mind Education System</li> <li>6) Matching the specialist knowledge with requirements</li> </ol>
<b>AICTE</b>	<ol style="list-style-type: none"> <li>1) Prediction of Admission &amp; Jobs in Engineering &amp; Technology with respect to demographic locations</li> <li>2) Dashboard for all MHRD Initiatives &amp; schemes</li> <li>3) Zila Vikas Manch (ZIVIMA) - District Development Portal</li> </ol>
<b>DEPARTMENT OF SPACE (ISRO)</b>	<ol style="list-style-type: none"> <li>1) Speaking Geo GP Assistant</li> <li>2) Gram Panchayat Adoption Advisor</li> <li>3) Text Extractor</li> </ol>
<b>MINISTRY OF RAILWAYS</b>	<ol style="list-style-type: none"> <li>1) Passenger Security</li> <li>2) Management of Railway Rest Houses &amp; Holiday Homes</li> <li>3) Maintenance of Coaches &amp; Wagons</li> </ol>
<b>MINISTRY OF SOCIAL JUSTICE AND EMPOWERMENT</b>	<ol style="list-style-type: none"> <li>1) Online system for skill training and employment including management of database of skilled PwDs</li> <li>2) Mobile app for assessment of reading skill, arithmetic skills etc.</li> <li>3) Picture exchange communication software for better understating of persons with intellectual disabilities.</li> </ol>
<b>MINISTRY OF DEFENCE</b>	<ol style="list-style-type: none"> <li>1) To detect anomaly in current ship trajectory based on historical data.</li> <li>2) Vision based algorithm for sensing of railway tracks.</li> <li>3) Tool for Transformation of Geodetic Datum's (Coordinate Systems).</li> </ol>
<b>STUDENTS' INNOVATION</b>	<ol style="list-style-type: none"> <li>1) Software</li> <li>2) Presence tracking of Staff posted at Liquor Vends.</li> <li>3) All time availability of Popular Brands at Liquor Vends.</li> </ol>
<b>MISCELLANEOUS</b>	
<b>COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH</b>	<ol style="list-style-type: none"> <li>1) Mechanism for prescribing drug in hospitals and its or its substitute availability in the medical shops of the area/ city</li> <li>2) Computational approaches to understand corrosion mechanism under extreme conditions</li> </ol>
<b>MINISTRY OF AGRICULTURE &amp; FARMERS WELFARE</b>	<ol style="list-style-type: none"> <li>1) Forewarning system for disease/pest attack for different commodities in different agro-climatic zones</li> <li>2) Marketing network for agricultural commodities for the benefit of producer and consumer</li> <li>3) Development of a multilingual Mobile App for deep sea fishermen</li> </ol>
<b>MINISTRY OF TRIBAL AFFAIRS</b>	<ol style="list-style-type: none"> <li>1) An App required to identify the benefits from the schemes of the MoTA</li> <li>2) Solution required to link the local artisans with the agencies of MoTA</li> <li>3) Solution required to increase awareness about other schemes among FRA (Forest Rights Act) title holders</li> </ol>
<b>MINISTRY OF POWER</b>	<ol style="list-style-type: none"> <li>1) Prediction of Load demand and Power Availability</li> <li>2) Power Customer Interaction</li> <li>3) Efficient, Easy and Integrated Billing System</li> </ol>
<b>MINISTRY OF COAL</b>	<ol style="list-style-type: none"> <li>1) A suitable IT solution may be developed to measure water quality and motor temperature in borewells using some sensors. A centralized alerting system may also be developed.</li> <li>2) A Smart project management system using mobile and video grab technology.</li> </ol>
<b>MINISTRY OF WOMEN AND CHILD DEVELOPMENT</b>	<ol style="list-style-type: none"> <li>1) C2C crowd-sourcing platform for projects on women's empowerment</li> <li>2) App for training of Elected Women Representatives in Panchayat Raj Institutions</li> <li>3) National Creche Portal/App</li> </ol>



Ministry/ Department	Some of the problem statements
<b>MINISTRY OF CONSUMER AFFAIRS, FOOD AND PUBLIC DISTRIBUTION</b>	<ol style="list-style-type: none"> <li>1) Working on offline-online application and sync the data</li> <li>2) Integration with Moisture meter3 E-Governance via online &amp; offline server</li> </ol>
<b>MINISTRY OF COMMERCE &amp; INDUSTRY</b>	<ol style="list-style-type: none"> <li>1) Creating a platform that tracks and measures the impact created from all the start-ups recognized by DIPP and others as well</li> <li>2) Creating a platform for aggregation (information and application) of loans to Start-ups</li> <li>3) Creating an Automatic Pitch Deck Creator</li> </ol>
<b>MINISTRY OF ROAD TRANSPORT AND HIGHWAYS</b>	<ol style="list-style-type: none"> <li>1) Applications to locate Skilled Labourer for Highway Construction works.</li> <li>2) Games on Road Safety</li> <li>3) Enablement of Drive-Mode application for Road Safety</li> <li>4) Meal on Wheels</li> <li>5) Identification of Accident Prone Spots by the Road Users and their reporting to the concerned Highway Authority</li> </ol>
<b>MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY (MEITY)</b>	<ol style="list-style-type: none"> <li>1) Masking user details on the mobile while transacting &amp; Establishing if a cardholder is shopping from a recognised payment device.</li> <li>2) Create an app that can run on a Windows/Linux based desktop to aid the disabled persons to perform day to day tasks points</li> <li>3) For online Job Applications received by NIELIT, the credentials of Candidates (if available on Digital Locker or any other repository) should be verified instantly online.</li> <li>4) Development of a vulnerability scanner</li> <li>5) Computerized Application for Paper-less Examination Screening (CAPES) system for recruitment</li> </ol>
<b>MINISTRY OF INFORMATION AND BROADCASTING</b>	<ol style="list-style-type: none"> <li>1) Develop a tool or system that can listen to a radio broadcast tuned to a certain frequency on the air waves and live stream the same as an Internet stream</li> <li>2) Design an innovative user interface for a Mobile App that would intuitively and seamlessly allow the App User to browse the entire catalogue of AIR streams</li> <li>3) Design an innovative Mobile App User Interface that can replace a TV remote</li> </ol>
<b>MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION</b>	<ol style="list-style-type: none"> <li>1) Consumer Price (CPI) data collection for Rural &amp; Urban Sectors through mobile based application software CPIAPP(R) &amp; CPIAPP(U).</li> <li>2) GPS based technique for improving Land Use Survey in ICS Scheme (LAKSHYA)</li> <li>3) International Comparison Program (ICP) data collection through mobile based application software (ICPAPP).</li> </ol>
<b>MINISTRY OF SKILL DEVELOPMENT &amp; ENTREPRENEURSHIP</b>	<ol style="list-style-type: none"> <li>1) Development of Entrepreneurship Facilitation - Guidance Centre Platform</li> <li>2) Skill India App</li> <li>3) Development of Online Mentor Platform</li> </ol>
<b>MINISTRY OF ENVIRONMENT, FORESTS &amp; CLIMATE CHANGE</b>	<ol style="list-style-type: none"> <li>1) Digital solution to document, analyse and manage the effect of Tourism on local Biodiversity and Wildlife in Protected Areas and tourist spots.</li> <li>2) Developing video based sensor technological network to address human-wildlife conflict and poaching in and around Protected Areas</li> <li>3) Digital solution to predict drought in a protected area/locality</li> </ol>
<b>MINISTRY OF HEALTH &amp; FAMILY WELFARE</b>	<ol style="list-style-type: none"> <li>1) Rationalising Monitoring Visits in the States</li> <li>2) Platform for Learning from Disasters</li> </ol>
<b>MINISTRY OF AYUSH</b>	<ol style="list-style-type: none"> <li>1) To develop an conversion scale which would convert the scaled mentioned in Ayurveda into modern day measures</li> </ol>
<b>MINISTRY OF COMMUNICATIONS</b>	<ol style="list-style-type: none"> <li>1) Load management for transport planning</li> </ol>
<b>MINISTRY OF URBAN DEVELOPMENT</b>	<ol style="list-style-type: none"> <li>1) e-Measurement Book (eMB)</li> <li>2) Common Platform for Vehicle Registration</li> <li>3) Common Mobility App</li> <li>4) Urban Mobility</li> <li>5) Stakeholder Engagement for Urban Planning and Management</li> </ol>



# Schedule for Grand Finale of Smart India Hackathon 2018 (30th & 31st March 2018)



29 <sup>th</sup> March	Registration process to be completed (To be completed by evening on 29 <sup>th</sup> March)
<b>March 30: Day 1</b>	
7:00 AM - 7:40 AM	Breakfast
7:40 AM - 7:45 AM	Assemble at respective venues
7:45 AM - 7:50 AM	Lamp lighting at all the respective venues
7:50AM - 7:55 AM	Welcome address by Chairman/Principal/Dean of the respective institutes (Any One)
7:55 AM - 8:02 AM	Speech by Chief Guest at respective venues
8:05 AM - 8:09 AM	Speech by Co-Chair, SIH - Dr. Anand Deshpande through VC for all
8:10 AM - 8:14 AM	Speech by Chairman, AICTE, SIH – Prof. Anil Sahasrabudhe through VC for all
8:15 AM - 8:19 AM	Speech by Mr. R. Subrahmanyam, Secretary (TE), HRD, Gol through VC for all
8:20 AM - 8:24 AM	Speech by Dr. Satya Pal Singh, MoS, HRD, Gol through VC
8:25 AM - 8:30 AM	Speech by Shri. Prakash Javedekar, Hon'ble Minister of HRD through VC
8:30 AM	Grand Finale of Smart India Hackathon goes live at all the centres
8:45 AM onwards	Coding Begins
10:00 AM	Tea and Snacks on Table
11:30 PM - 01:00 PM	First Round of Mentoring Session. 7-10 min./team; Individual Ministry Mentor to guide the teams
01:00 PM	Lunch
4:30 PM - 05:00 PM	Tea and Snacks
06:00 PM - 07:00 PM	First round of evaluation 3 judges/panel; 7 min. /team; 4 min. presenting; 3 min. Q & A
07:45 PM - 09:00 PM	Address by Hon'ble PM
09:00 PM - 09:30 PM	Dinner
9:30 PM	Coding returns
11:00 PM	Redbull Hour (One Can of Redbull provided to each student)
<b>March 31 : Overnight Phase</b>	
00:00 AM - 00:30 AM	Second Round of Mentors 5 to 7 min/team, Different Ministry Mentors for different teams
01:00 AM - 01:30	Physical Activity
01:30 AM	Coding Continues
03:00 AM	Snacks and biscuits served on table
<b>March 31 : Day 2</b>	
6:00 AM - 6:15 AM	Yoga Session
6:30 AM - 7:30 AM	Breakfast served
9:00 AM - 10:00 AM	Second round of evaluation (3 Judges / Panel; Evaluating implementation of ideas)
10:00 AM	Tea and snacks served at table
12:00 PM - 12:45 PM	Power Mentoring (Final Round of mentoring by ministry professionals )
12:45 PM - 1:30 PM	Lunch
03:05 PM - 7:00 PM	Final judging followed by Power Judging The final pitch, 6 min/ team, 3 min explanation, 3 min Q & A
7:00 PM to 8:00 PM	Result finalization by judges in a special hall at the venue
8:00 PM	Valedictory session Starts
8:20 PM	Results announced for all 4 winning teams
8:30 PM	National Anthem
8:45 PM	Students will leave premises



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**All India Council for Technical Education**

Nelson Mandela Marg. Vasant Kunj. New Delhi-110070

Phone: 011-26131576-78 80.

Website: [www.aicte-india.org](http://www.aicte-india.org)



**It is India's responsibility**  
to display its strength to the world through knowledge and innovations  
**-Narendra Modi**



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