

## Introduction

- The Initiative for Research & Innovation in Science (IRIS) is a research based national science fair for students from class 8 to 12 that aims to inspire budding innovators in India.
- It is a public-private partnership between Department of Science and Technology, Government of India (DST), Indo US Science and Technology Forum (IUSSTF) and Intel<sup>®</sup> that aims to inspire budding scientists in India.

# Highlights

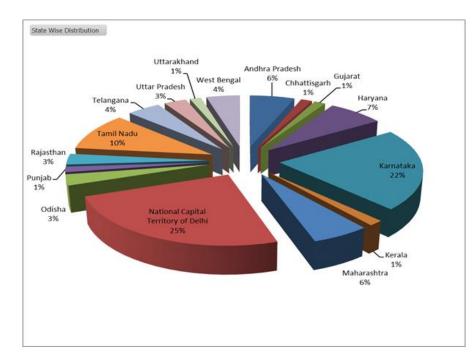
- The IRIS website <u>www.IRISNationalFair.org</u> received over 1050 project synopses online for evaluation towards gaining entry into the IRIS National Science Fair; of these 70 projects were invited to participate in IRIS 2017
- The fair was held at Sam Manekshaw Centre, New Delhi from 16-18 November 21, 2017, and a total of 102 students participated in it
- Smt Meenakshi Lekhi Hon'ble Member of Parliament (Lok Sabha) New Delhi Constituency Chief Guest at The IRIS Inaugural Ceremony, congratulated participants for their innovative projects.
- Recipients of the Intel IUSSTF Scientific and Cultural visit to India Award ISEF 2017 along with Lisa Icenroad, Manager Domestic Fairs Society for Science and the Public, were also present at IRIS 2017 having travelled from USA for the same.
- The fair was open to public viewing on two days and drew students and science enthusiasts from schools and colleges in Delhi NCR
- There were a total of 26 Judges to evaluate the projects
- Ms Isabell Detwiler, Deputy Minister Counsellor US Embassy, New Delhi presented the Special Awards at the Valediction Ceremony
- The event was attended by several IRIS/ ISEF Alumni who freely volunteered their time and helped to make the Fair a success

#### **Awards**

- 20 projects were presented the IRIS Grand Award winners of this award will represent India at the Intel International Science and International Fair at Los Angeles in May 2017 ( List Attached)
- 9 Special Awards were also presented courtesy IRIS affiliation to Intel ISEF. Included among these was the Society for Science and the Public Award for Community Innovation award for 2017 -18

## **Additional Details**

• The IRIS Facebook page <u>www.facebook.com/IRISNationalFair</u> with over 75,000 followers carries pictures and highlights of the event



# **Details of Projects at IRIS from across India**





Grand	Awards - IRIS 201	.7			
Projec t IDs	Project Category	Project Name	Name of Student(s)	Name Of School	City
	Engineering:	An Economical Early Detecting		St	
	Material &	and Dosage Monitoring Tool	Swasthik Padma &	Aloysius P	
EN01	Bioengineering	for PEM	Mohd Suhail C S	U College	Mangalore
		An Inexpensive Solution for			
		Visual Acuity Testing in		Delhi	
		Preverbal Children Using Deep		Public	
	Computer	Convolutional Neural		School R K	
CS03	Science	Networks	Ishita Mangla	Puram	New Delhi
		Architecture Tweaking Image			
		Analysis Software For		La	
	Computer	Automated Detection of Land		Martinier	
CS05	Science	Features In Satellite Images	Param Singh Gujral	e for Boys	Kolkata
	Engineering:			Al Yasmin	
	Electrical &		Zain Ahmed	Internatio	
EE01	Mechanical	Exoheal	Samdani	nal School	Hyderabad
				GD	
	Earth &	Studying Planetary System		Somani	
	Planetary	Formation through Analysis of	Antara Raaghavi	Memorial	
EA01	Science	Exoplanetary Data	Bhattacharya	School	Mumbai
		Connecting Doctors for Good		Pusa	
	Computer	Using a Peer Lung Cancer		Public	
CS08	Science	Detection program	Parth Raghav	School	New Delhi
				South	
				Point	
	Computer	Machine Learning Approach to		High	
CS10	Science	Cancer Identification	Shinjini Ghosh	School	Kolkata
				Devi	
				Academy	
		Determining Space Debris		Senior	
		Orbits for Collison Prediction	Aswath	Secondar	
PH01	Physics	Using Chaos Theory	Suryanarayanan	y School	Chennai
			Kaushik Kunal	Inventure	
PS01	Plant Sciences	The Plant Doctor	Singh	Academy	Bengaluru
		Proof of the Analogue of		Delhi	
		SZEMEREDI'S Theorem for		Public	
		Rectangles, N*N Lattice,		School, R	
MA03	Mathematics	Cuboid and N-Orthotope	Nishant Dhankar	K Puram	New Delhi
				National	
		Solving A Mathematical		Public	
		Mystery: SCHINZEL'S	Sacheth	School,	
MA01	Mathematics	CONJECTURE	Sathyanarayanan	Chennai	Chennai
		A Novel Approach to a P53			
		Stabilizing Agent to Accelerate			
	Cellular &	Cell Apoptosis to Prevent		La	
	Molecular	Malignancy and Initiate Cell	Shuvayu Dasgupta	Martinier	
CB01	Biology	Arrest	& Syed Roshan Ali	e for Boys	Kolkata

				DAV	
		Biodetoxification of		Public	
		Hexavalent Chromium using		School,	
MI01	Microbiology	Anabaena Cylindrica	Naisargik Lenka	Unit-8	Bhubaneswar
		Insights Into Bacterial		Maharaja	
		Pathogenesis- Establishing		Agarsain	
		Quorum Sensing as a Novel		Public	
MI04	Microbiology	Virulence Regulator	Harshit Jindal	School	New Delhi
				NSN	
		Efficient and Economical		Matricula	
		Control of Pests in Rice		tion	
		through Seedlings raised in		Higher	
		Soilless Media Using Nano		Secondar	
PSO2	Plant Sciences	Biopesticides	A Siva Bharathi	y School	Chennai
		Epigenetically Repressing	Tanya Goyal &	Maharaja	
	Cellular &	Endocrine Disruptions Through		Agarsain	
	Molecular	Algal Derivative for an Obesity	Sharen M C	Public	
CB03	Biology	Free World		School	New Delhi
		Fabrication of Specific			
		Genosensor for the Detection		Maharaja	
		of Pathogenic E Coli using		Agarsain	
		Uniquely Designed Molecular		Public	
MI03	Microbiology	Tag From 16S RNA Gene	Kunal Singh	School	New Delhi
				Amity	
				Internatio	
			Tanya K Talwar &	nal	
		Creating Self Designed Mazes		School,	
	Behavioral &	for Autistic People to Map	Akshat Gupta	Pushp	
BH02	Social Science	Their Analytical Skills		vihar	New Delhi
		Non- Invasive Self Detection			
		Asymptomatic Acute		The Ashok	
	Medicine &	Myocardial Infarction using		Leyland	
ME01	Health Sciences	Bioelectrics	Akash Manoj	School	Hosur
		Cost Effective, Real-Time		Bangalore	
		Monitoring of Polluting in	Pranav Shikarpur &	Internatio	
	Enviromental	Water Bodies using a Portable	Siddharth	nal	
EV03	Sciences	Floating Device	Viswanath	Academy	Bengaluru

Special Awards				
S.No	Award	Code	Name	Project Title
1	Certificate of Award by the American	BI02	Rakshith Vyas &Ananth Gagan	
	Psychological Association		Pappala	Sugar Testing Exhalometer
2	Certificate of Award by the American Psychological Association	BH01	G Manasa G Sushanth	Electrical learning aid for visually challenged children for gaining confidence to take up Engineering field which can elevate their status equal to sighted children and help in maintaining social relationship in the society.

3	The Society for In Vitro Biology AWARD	CB01	Shuvayu Dasgupta & Syed Roshan Ali	A novel approach to a p53 stabilizing agent to accelerate cell apoptosis to prevent malignancy and initiate cell arrest
4	Student awards for Geoscience Excellence by Association For Women Geoscientists AWARD	EM01	Lalitha Pingali	STINK MAP Monitoring Environmental Pollution by Detecting and Classifying Odors using a Simple and Easy to use Mobile Probe
5	Mu Alpha Theta AWARD	MA05	Ayush Sachdeva & Siddhant Mal	Vector to People (V2P) Disease Prediction : A Differential Equation Approach
		MA03	Nishant Dhankhar	Proof of the analogue of Szemeredi's theorem for rectangles,n*n lattice,cuboid and n-orthotope
6	Yale Science and Engineering Association	CH01	Eshan Bajaj	A Nano Solution to Giga Nano Problems
	award for the most outstanding exhibit Ricoh Sustainable Development Award	EV03	Pranav Shikarpur & Siddharth Viswanath	Cost effective, Real-time monitoring of pollution in water bodies using a portable floating device
7	INTEL EXCELLENCE IN COMPUTERS SCIENCE AWARD	CS11	Shreya Sandurkar	RoadVisor A Smartphone App to Sense Bumpy Conditions of Indian Roads
8	Award By University of Toronto Faculty Of Applied Sciences & Engineering	CS01		iThink: A wearable self-learning neurotransmitter with embedded database and trained neural networks for encoding EEG raw data enabling Brain to Text(BTT), Brain to Speech(BTS) and Brain to Command(BTC) for real-time BCI
9	Society for Science & the Public - Award for Community Innovation	EE03	Aman Shrivastava Shubh Snehalbhai Dholakiya	and machine learning applications. Detachable Set of Piston Cylinder Spring System And Portable Side Stand for the bicycle Enabling user to ride with one leg

