

aspiringminds

India Science Festival

Celebrating Science. Opening Minds.

11-12 JANUARY 2020 | IISER, PUNE



The **Foundation for Advancing Science and Technology India (FAST India)** is a non-profit institution of excellence working to enable the transformation of India's science and technology ecosystem through research and policy, government support, institutional strengthening, corporate sector engagement, and science communication.

The **India Science Festival (ISF)** is FAST India's flagship science communication event, which has emerged as the country's largest non-governmental platform for public celebration of science & technology!

ISF aims to make science accessible, engaging and fun for all!

India Science Festival 2020

Celebrating Science. Opening Minds

11-12 January 2020 | IISER, PUNE



AI

What machines can and cannot see: Progress over forty years

Speaker

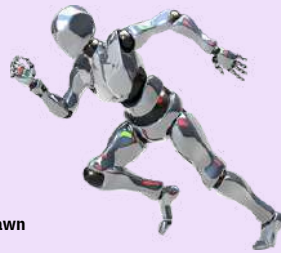
Narendra Ahuja

ITRA

Jan 11, 2020

10:30- 11:15 AM

Hodgin Huxley Lawn
IISER Pune



Talks

Has the terminator arrives- AI becomes smarter than humans

Speaker

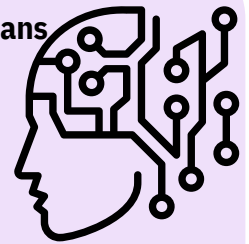
Subbarao Kambhampati

IASU

Jan 11, 2020

11:15 AM- 12:00 PM

Turing Lawn
IISER Pune



Talks

Teaching machines to read and write our language

Speaker

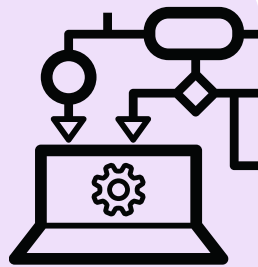
Sunita Sarawgi

IITB

Jan 11, 2020

12:00 PM- 12:55 PM

CV Raman Audi
IISER Pune



Talks

Humans are not alone, AI discriminates too: Controlling bias in AI

Speaker

Nisheeth Vishnoi

Yale

Jan 11, 2020

12:55 PM- 1:40 PM

Hodgin Huxley Lawn
IISER Pune



Talks

Extended Intelligence: Coupling human and Artificial Intelligence

Speaker

Arnav Kapur

MIT

Jan 11, 2020

2:45 PM- 3:45 PM

Turing Lawn
IISER Pune



Talks

Can AI democratize healthcare innovation: Learning from Nepal

Speaker

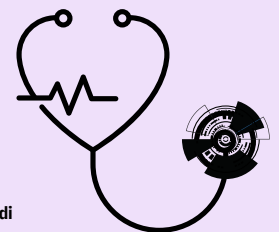
Bishesh Khanai

NAAMI

Jan 11, 2020

3:45 PM- 4:30 PM

CV Raman Audi
IISER Pune



Talks

Can AI do more than adding dog ears to selfies- like fighting social justice and improving society?

Speaker

Miling Tambe

Harvard

Jan 11, 2020

4:30 PM- 5:15 PM

Turing Lawn
IISER Pune



Talks

GPUs- from computer games to computer vision

Speaker

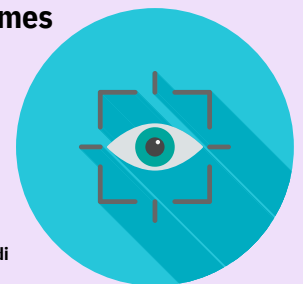
P J Narayanan

IIITH

Jan 12, 2020

11:45 AM- 12:30 PM

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Talks

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AI

Google AI research: Global impact and opportunity for India

Speaker

Manish Gupta
Google Research India



Jan 12, 2020

12:30 PM- 1:15 PM

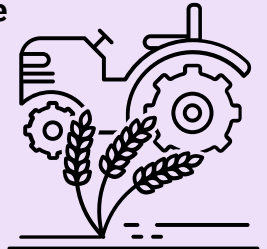
Turing Lawn
IISER Pune

Talks

AI to make lives better, Agriculture, Food management and more

Speaker

Gargi Dasgupta
IBM



Jan 12, 2020

1:15 PM- 2:10 PM

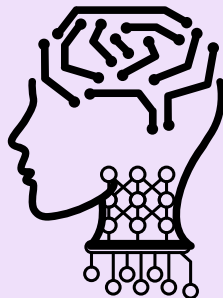
CV Raman Audi
IISER Pune

Talks

Solving problems using AI: Going beyond deep learning

Speaker

Varun Aggarwal
Aspiring Minds



Jan 11, 2020

3:35 PM- 4:35 PM

Hodgin Huxley Lawn
IISER Pune

Talks

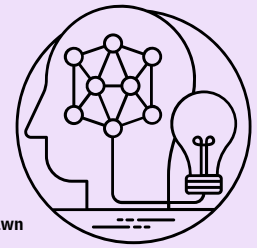
Is deep learning the nirvana of AI?

Panelists

Milind Tambe, Payal Arora, Arnav Kapur

Moderator

Manish Gupta



Jan 12, 2020

4:35 PM- 5:20 PM

Hodgin Huxley Lawn
IISER Pune

Panel Discussions

Brain Science

Outside-In: bringing the world into our brains

Speaker

Shubha Tole
TIFR



Jan 11, 2020

10:30 AM- 11:15 AM

Turing Lawn
IISER Pune

Talks

How do we form our memories and how do we know where to look for them?

Speaker

US Bhalla
NCBS



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11:45 AM- 12:30 PM

Hodgin Huxley Lawn
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Talks

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Brain Science

Embodied brains and disembodied minds: A neurological perspective or human nature

Speaker

VS Ramachandran
UCSD

Jan 11, 2020

12:00 PM- 12:55 PM

Turing Lawn
IISER Pune



Talks

Do our brains use the same principles as deep learning?

Panelists

Rajesh PN Rao, Subbarao Kambhampato, US Bhalla

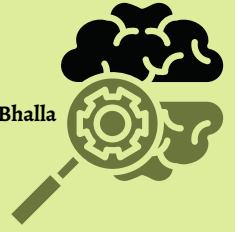
Moderator

Venkatesh Murthy

Jan 11, 2020

2:45 PM- 3:45 PM

Hodgin Huxley Lawn
IISER Pune



Panel Discussions

How insects make smart decisions using past experience and internal models of the world

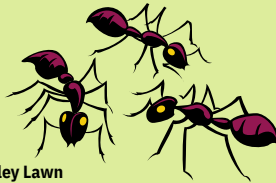
Speaker

Vivek Jayaraman
HHMI

Jan 12, 2020

12:30 PM- 1:15 PM

Hodgin Huxley Lawn
IISER Pune



Talks

Brain 2.0 - Connecting human brains and machines

Speaker

Rajesh PN Rao
UWash

Jan 12, 2020

4:35 PM- 5:20 PM

Turing Lawn
IISER Pune



Talks

Core Science

Making the world around us Intelligent- The internet of things

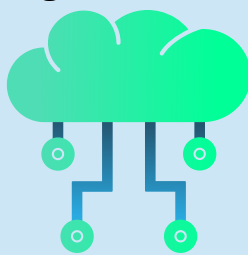
Speaker

Sanjay Sharma
MIT

Jan 11, 2020

11:45 AM- 12:30 PM

Turing Lawn
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Talks

Genomics Quirks: How our genes make or break us?

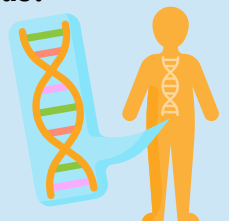
Speaker

Ramesh Hariharan
Strand Life Sciences

Jan 11, 2020

12:00 PM- 12:55 PM

Hodgin Huxley Lawn
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Talks

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Core Science



Can we map what our universe hides?

Speaker

Priyamvada Natarajan
Yale

Jan 11, 2020

12:55 PM- 1:40 PM

Turing Lawn
IISER Pune



Talks

Blood on a chip:

Technology for diagnostic tests at doctor's offices

Speaker

Dhanajay Dendukuri
Achira Labs

Jan 11, 2020

2:45 PM- 3:45 PM

CV Raman Audi
IISER Pune



Talks

Can science tell us how we are?

Speaker

Mani Bhaumik
UCLA

Jan 11, 2020

3:45 PM- 4:30 PM

Turing Lawn
IISER Pune



Talks

Should we shoot the world's deadliest messengers or just disarm them through genetic engineering?

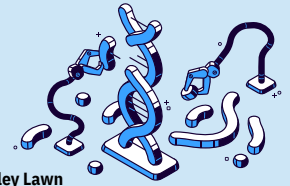
Speaker

Suresh Subramani

Jan 12, 2020

11:45 AM- 12:30 PM

Hodgin Huxley Lawn
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Talks

Do India public health issues differ from the world-how to prevent, diagnose and cure?

Speaker

Gagandeep Kang
THSTI

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12:30 PM- 1:15 PM

CV Raman Audi
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Talks

Stephan Hawking's legacy in fundamental physics

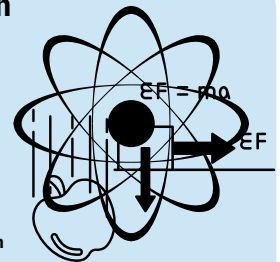
Speaker

Rajesh Gopakumar
ICTS- TIFR

Jan 12, 2020

1:15 PM- 2:10 PM

Hodgin Huxley Lawn
IISER Pune



Talks

Do our brains use the same principles as deep learning?

Panelists

Ramarao Dhamela, Sanjeev Galande

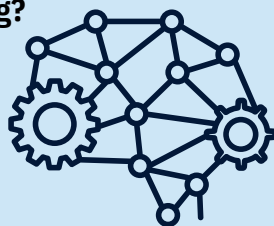
Moderator

Shambhavi Naik

Jan 12, 2020

1:15 PM- 2:10 PM

Turing Lawn
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Panel Discussions

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Art and History



Ajanta- A pigment of glorious imagination

Speaker

S. Swaminathan

Tamil Heritage Trust



Jan 11, 2020

10:30- 11:15 AM

CV Raman Audi
IISER Pune

Talks

Speculative Fiction: Imagining the future

Speaker

Tashan Mehta

Author



Jan 11, 2020

12:00 PM- 12:55 PM

Feynman Theatre
IISER Pune

Talks

Elephant's head for Ganesh- did ancient Indians know how to transplant organs?

Panelists

Rajesh PN Rao, VS Ramachandran,
R. Gopu, Shubha Tole

Moderator

Saurabh



Jan 11, 2020

4:30 PM- 5:15 PM

Feynman Theatre
IISER Pune

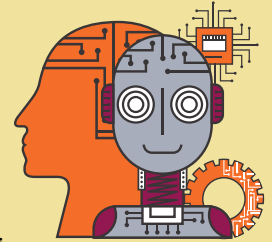
Panel Discussions

AI and Art: Human Machine continuum

Speaker

Harshit Agarwal

MIT



Jan 11, 2020

4:30 PM- 5:15 PM

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Talks

Mission Mangal: Why women are not from Venus?

Speaker

Minnie Vaid



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11:45 AM- 12:30 PM

CV Raman Audi
IISER Pune

Interview

Ying- Yong: Science of art, art of science

Panelists

Harshit Agarwal, Pawan Sinha,
Vijayendra Mohanty, Tashan

Moderator

Jahnvi



Jan 12, 2020

12:30 PM- 1:15 PM

Feynman Theatre
IISER Pune

Panel Discussions

M Tamasoma Jyotisha Gamaya: The men who knew zero to infinity

Speaker

R Gopu,

THT Badri Sheshadri, Synprosoft



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3:35 PM- 4:35 PM

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Talks

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AI

New models of doing and funding science- what the future holds

Speakers

Vidur Mahajan, Vivek Jayaraman, Narendra Ahuja, D Dendukuri, Bishesh, Pankaj



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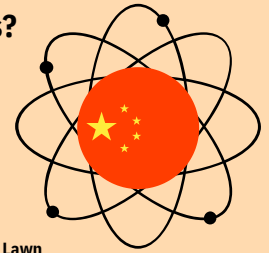
12:55 PM- 1:40 PM

Fireside Chats

How did China become a science superpower in two decades?

Speaker

Cong Cao
University of Nottingham, China



Jan 11, 2020

Hodgin Huxley Lawn
IISER Pune

3:45 PM- 4:30 PM

Talks

The roads taken- life as a scientist, policy maker or entrepreneur

Panelists

Anna Agarwal, Ramesh Hariharan

Moderator

Nisheeth Vishnoi



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Hodgin Huxley Lawn
IISER Pune

4:30 PM- 5:15 PM

Panel Discussions

Should science be priority for India- the fastest growing economy?

Panelists

Sanjay Sharma, Rajan Navani, Priyamvada Natarajan

Moderator

Varun Aggarwal



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Turing Lawn
IISER Pune

5:30 PM- 6:45 PM

Panel Discussions

From Lab to market

Panelists

Manoj Kumar, Taslim Saiyed, B Ravindran

Moderator

Chintan Vaishnav



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IISER Pune

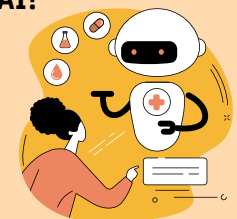
10:35 AM- 11:45 AM

Panel Discussions

Data Panel Harvard: Machines, Medicine and You: Is Indian health care ready for AI?

Speakers

Ashwin Naik, Santanu Bhattacharya, Sunita Nadhamuni, Rahul Mattan, Satchit



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Turing Lawn
IISER Pune

2:30 PM- 3:30 PM

Fireside Chats

Why and how to build an MIT in India?

Panelists

PJ Narayanan, Rajesh Gopakumar, Anil Sahasrabudhe

Moderator

Nisheeth Vishnoi



Jan 12, 2020

Turing Lawn
IISER Pune

3:35 PM- 4:35 PM

Panel Discussions

Why science needs women?

Panelists

Gagandeep Kang, Minnie Viad, Gargi Dasgupta

Moderator

Kavya Narayanan



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CV Raman Audi
IISER Pune

4:35 PM- 5:20 PM

Panel Discussions

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TYT: Talk Your thesis Talks

Search for physics beyond the standard model

Speaker

Angira Rastog
IISER, Pune

Jan 11, 2020

12:45 PM- 12:55 PM

Hodgin Huxley Lawn
IISER Pune



TYT

Control of unstart phenomenon in scramjet engines

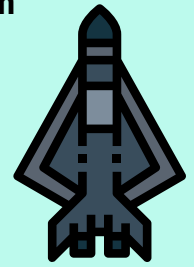
Speaker

Anchal Varshney

Jan 11, 2020

12:45 PM- 12:55 PM

CV Raman Audi
IISER Pune



TYT

How to teach a robot to perform a brain surgery

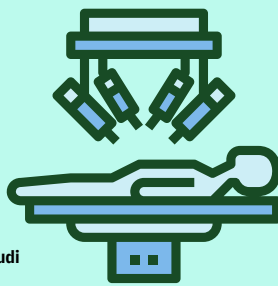
Speaker

Vikas Vazhaiyal

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3:35 PM- 3:45 PM

CV Raman Audi
IISER Pune



TYT

Factor affecting lift generation in insects and birds

Speaker

Anand Bhardwaj
IIT Madras

Jan 12, 2020

2:10 PM- 2:10 PM

Hodgin Huxley Lawn
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TYT

TBD

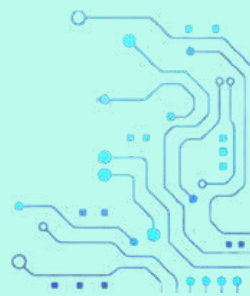
Speaker

Nitesh Mishra

Jan 12, 2020

4:25 PM- 4:35 PM

Turing Lawn
IISER Pune



TYT

PYP: Perform Your Project Talks

Anveshan: Voice controlled robotic arm

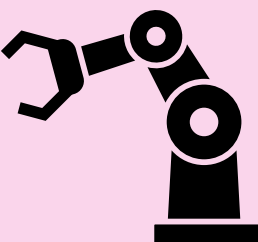
Speaker

Ankit S. Gupta

Jan 11, 2020

3:35 PM- 3:45 PM

Turing Lawn
IISER Pune



PYP

Controlling humans and their free will

Speaker

Anubhav Mishra

Jan 11, 2020

3:35 PM- 3:45 PM

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PYP

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PYP: Perform Your Project Talks

Battery-less UPS system using flywheel

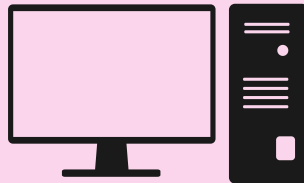
Speaker

Sivaranjani S.

Jan 12, 2020

2:00 PM- 2:10 PM

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IISER Pune



PYP

Duo-vent: AI-enabled smart ventilation system

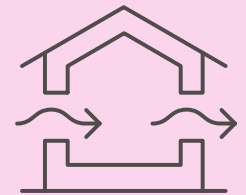
Speaker

Rajesh Thangavel Yadav

Jan 11, 2020

3:35 PM- 3:45 PM

Hodgin Huxley Lawn
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PYP

KnightCryption: Algorithm derived from chess, math and sanskrit poetry

Speaker

Arush Gupta

Jan 12, 2020

4:25 PM- 4:35 PM

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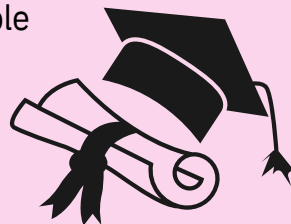


PYP

RoundTables

Improving PhD programs in India PhD Student Roundtable

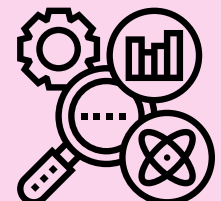
Jan 11, 2020



Roundtable

Industry-academia research collaborations - examples of successes NASSCOM

Jan 12, 2020



Roundtable

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