



School Webinar Series



Objective



Public
Engagement

Science
Communication

WHO
Awareness
Session

Being at the forefront of Science & Technology, we, undergraduate students from IIT Roorkee, recognize the limited perspective of science among the school students in the Indian education system.

We are initiating an open dialogue on how biology, mathematics, economics, social sciences, art, and computer sciences come together to solve real-world problems and lead innovation.

As the leaders of Bioengineering and Synthetic Biology Revolution, we aim to educate students on two breakthrough technologies of the future i.e., **Biotechnology** and **Artificial Intelligence**.

We will also conduct an awareness session about a dangerous Public Health Crisis, **“Antibiotic Resistance and the era of Superbugs,”** which, if untackled, will soon collapse our entire healthcare infrastructure. We will also tell about our project and how it is providing solution to combat the crisis.

The Crisis

Antimicrobial Resistance & Superbugs: A rundown of the global Public Health crisis

Constant and uncontrolled use of antibiotics has led microorganisms like bacteria to develop resistance against them. Hence, the current antibiotics no longer effective.

Nearly **60,000 newborns die of Multidrug resistant (MDR) infections** every year with a mortality rate of more than 70%.

OUR ANTIBIOTICS ARE FAILING AND SOON THEY WILL BECOME USELESS!

GLOBAL

A failure to address the problem of antibiotic resistance could result in:



10m
deaths
by 2050

Costing
£66
trillion



Technologies of the Future

Synthetic biology is a new interdisciplinary area that involves the application of engineering principles to biology.

Synthetic biology aims to (re)design and fabricate biological components and systems that do not already exist in the natural world.

Synthetic Biology



Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed.

Machine learning is based on developing adopting data-based learning models.

Machine Learning

Webinar Details

1 hr Session + 20 mins Buffer

Induction → Survey → Presentation →
Awareness Workshop → Survey → Q/A

A **resource booklet** for further exploration and content will be distributed.
(including intuitive **posters** that shall be put up in the schools/classrooms)

A chance to interact with IIT students who are contributing at the forefront of science, business and technology.

PICK DATE: 4th July, 11th July, 18th July, 25th July
(Preferably a Saturday but negotiable)

Categories

7th-8th	9th-10th	11th-12th	Teachers
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Become a part of **Global Synthetic Biology** and **Bioengineering Revolution** and redefine the way students perceive science and biology.

Our Team

We are a bunch of undergraduate students from IIT Roorkee conjoining from various disciplines to participate in the **world's largest Synthetic Biology competition, iGEM** (International Genetically Engineered Machine), hosted by MIT, Boston, USA.

We aim to solve one of the major problems the healthcare industry faces today using the tools of Bioengineering and Machine Learning.



“We are leading the
Synthetic Biology Revolution.”

Let's Connect



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