

Cover Story

SCIENCE & INNOVATION ORGANISATIONS



A world of scientific exploration and technological advancement awaits you. You might have seen images of advanced laboratories, futuristic drones, or satellites in orbit, thinking these opportunities are for a distant or exclusive group. In reality, this universe of innovation is right here in India, and it is ready for your participation.

Welcome to the exciting world of **Science and Innovation organisations!** These are groups or institutions that work to:

- Promote scientific research
- Support new ideas and inventions
- Solve real-world problems using science and technology

They bring together scientists, engineers, researchers, students, and industries to build a better and smarter future. *Why are they so important?* They fund and guide research, encourage young minds, and create innovative solutions that help our country develop faster. From school science labs to advanced AI/Robotics labs, these spaces are designed to help you tinker, experiment, and create.

These organisations are far more than just government buildings. They are the foundations for problem-solvers, the catalysts for new ideas, and the hubs for India's bright future.

From launching rockets to developing new vaccines and creating eco-friendly solutions, this is where significant progress is made. The most exciting part is that these organisations have **incredible opportunities for students like YOU!** Your journey in science and innovation can begin now, well before you reach college.

The Powerhouse Players: Who's Who in Indian Science

India is home to some of the world's most incredible scientific organisations, shaping our lives in ways we can't even imagine. Among the most prominent are the **Indian Space Research Organisation (ISRO)**, which is renowned for its achievements in space exploration; the **Defence Research and Development Organisation (DRDO)**, dedicated to advancing military technology for national security; the **Council of Scientific and Industrial Research (CSIR)**, a vast network of labs covering everything from medicine to engineering; and the **Atal Innovation Mission (AIM)**, which focuses on building a culture of entrepreneurship at the school level. Let's take a closer look at a few of these biggest names and what they're all about.

1. ISRO (Indian Space Research Organisation)

You've heard of ISRO, right? The folks who sent a rover to the Moon and a satellite to Mars! ISRO is the epitome of innovation and is a national hero for a reason. But here's the fun fact: they don't just hire rocket scientists. They have brilliant minds working on everything from designing satellite software to developing remote sensing applications that help our farmers. And their most exciting initiative for you is...

YUVIKA (YUva Vigyani KAryakram)

This "Young Scientist Programme" is a two-week residential program designed to give school children a taste of space science and technology.

Students get to visit ISRO centres, interact with top scientists, build model rockets, and even work on hands-on robotics and drone projects. Imagine getting to work inside ISRO's lab, building something with your own hands! It's an experience that can light up your entire future.



3. DRDO (Defence Research and Development Organisation)

The DRDO is all about protecting the nation by creating cutting-edge defence technology. Think advanced drones, missile systems, and even technology to protect our soldiers in extreme climates.

While their internship programs are often for college students, they actively support and sponsor science competitions and events for schools. The best way to get on their radar is to participate in science fairs and competitions that show off your problem-solving skills and technical know-how.

4. CSIR (Council of Scientific and Industrial Research)

CSIR is a giant network of 38 labs and 39 outreach centres across India, covering almost every field you can think of—from food and medicine to engineering and aerospace.

They have a brilliant "Jigyasa" program, a student-scientist connect initiative that links school students with CSIR scientists and their labs. Through this program, you can get a sneak peek into the world of professional research, do small projects, and see real-world science in action.

5. Atal Innovation Mission (AIM)

This one is a game-changer! An initiative by the Government of India, AIM is a nationwide effort to create a culture of innovation and entrepreneurship. Their flagship program for schools is the **Atal Tinkering Lab (ATL)**. If your school has an ATL, you have access to a fantastic space with tools like 3D printers, robotics kits, and electronics. This is your personal workshop to experiment, fail, learn, and create anything you can imagine! The best part is that AIM hosts national challenges, where you can put your ATL creations to the test and win big.



More Initiatives for Young Innovators

The Department of Science and Technology (DST) leads several key initiatives designed to help young people explore their interest in science. A major program, the **INSPIRE Scheme**, is a broad effort to encourage bright students to pursue careers in science.

The **INSPIRE Awards - MANAK** program empowers students from Class 6-10 to submit original ideas, giving them a platform to turn their inventions into reality. For older students, the **Scholarship for Higher Education (SHE)** provides financial support to those who choose to study basic sciences in college. In addition, the **National Innovation Foundation (NIF)** works to find and support amazing ideas from regular people. Through programs like the **Dr. A. P. J. Abdul Kalam IGNITE Awards**, NIF helps kids showcase their innovative ideas and even assists with the process of getting them patented. All these programs are dedicated to sparking creativity and curiosity throughout India.

Your Path to the Lab Coat: How to Get Involved

You might be thinking, "This all sounds amazing, but how do I, a high school student, get my foot in the door?" Great question! These organisations are hungry for young talent, and they have made it easier than ever to get involved.

- **Participate in School Programs:** Many of these organisations, like ISRO with YUVIKA and AIM with ATLs, partner directly with schools. Keep an eye on announcements from your teachers and school administrators.
- **Join Science Fairs & Olympiads:** Every major organisation keeps an eye on national and state-level science fairs. Winning or even just participating in events like the National Science Olympiad or the Inspire Awards can get you noticed and open doors to special workshops and internships.

- **Embrace Online Learning:** Many of these organisations and affiliated platforms offer online courses and workshops. ISRO, for instance, has the Antariksh Jigyasa platform, which offers free online courses on space science. You can learn about everything from satellites to rockets right from your laptop!
- **Don't Fear the Project:** Remember the young innovators from our last issue? They didn't wait for an invitation. They saw a problem in their community and used their scientific knowledge to solve it. Start with a small project: maybe a low-cost water filter for your home or a simple circuit to automate a task. Every big idea starts with a small, personal project.

The Future is a Team Sport

Science isn't a solo mission. It's a team sport, and these organisations are the ultimate team. They bring together engineers, scientists, designers, and thinkers from all walks of life to tackle the biggest challenges facing India and the world. By getting involved, you're not just preparing for a career; you're joining a community of like-minded, passionate people who are all working towards a common goal.

So, the next time you feel like science is just a subject in a textbook, remember that it's a living, breathing world full of opportunities. The lab isn't a place you go to; it's a mindset you carry with you. Start with your curiosity, build with your imagination, and let India's incredible science and innovation organisations be your guide. The future isn't just waiting to happen; it's waiting for you to create it. So, go on, get tinkering!