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Private University of India
QS World University Rankings 2026

NAAC
A+
GRADE
Accredited University



SUMMER LAB PROGRAM 2026



For Students of
Classes IX - XII



15 - 20 June (Cohort 1)
.....
22 - 26 June (Cohort 2)

PROGRAM 1



Immersive Training
Summer School on
Generative AI Trends

PROGRAM 2



Immersive Training
Summer School on
Biotechnology Trends



#

PRIVATE UNIVERSITY OF INDIA

QS World University Rankings 2026



Rankings & Accreditations

QS World University Rankings® 2026

1 PRIVATE UNIVERSITY IN INDIA

1 PRIVATE UNIVERSITY IN INDIA
Citations Per Faculty

THE World University Rankings 2026

3 IN INDIA Overall

135 GLOBALLY
Research Quality

QS Sustainability Rankings 2026

13 IN INDIA **# 126** IN ASIA

THE IMPACT Rankings® 2025

TOP 100 GLOBALLY

NIRF India Rankings® 2025

Ministry of Education, GoI

69 IN INDIA AMONG ALL UNIVERSITIES

44 Pharmacy
101-150 Engineering
11-50 SDG Impact

Accreditations



Awarded Category 1 Status by UGC | *under UGC's Graded Autonomy Regulation*

Dear Innovators,

I welcome you to the **Summer Lab Program 2024** at Shoolini University, **ranked #1 in India and #6 in Asia in Research**. India is on the cusp of becoming the research destination of the world, and it is individuals like you who will transform this vision into reality.

Program Highlights

Immersive Learning

Experience hands-on research in our world-class laboratories.

Innovative Ideation

Explore new possibilities and innovative ideas in STEM fields.

Subject-Specific Programs

Choose from specialized programs in Biotechnology or Finance.

Inspirational Himalayan Campus

Discover our award-winning library, sports facilities, and pine courts. Immerse yourself in the unique environment of Shoolini amidst the majestic Himalayas.

Join us for an enriching experience where you will develop a research mindset, gain practical skills, see the world through a new lens.

We eagerly await your arrival at our vibrant campus, where we will create memories and learn from each other. Get ready to embark on a journey of discovery and innovation.

See you soon!

Prof. Atul Khosla

**Founder and Vice-Chancellor,
Shoolini University**

Alumnus of McKinsey Oliver Wyman,
IIT Kanpur and JBIMS

**Innovation
is at the heart of
The Shoolini Experience.**

We take great pride in our identity as a top research university.





At the Summer Lab Program, you will :

- Collaborate with the **World's Top 2% Global Scientists and Researchers**
- **Immerse yourself in nature** with treks through pine forests and serene courtyards
- Kickstart your journey to **innovation and discovery**
- **Gain hands-on research experience** in state-of-the-art laboratories
- Tailor your experience with **specialized programs in Biotechnology, Computer Sciences or FinTech**
- Join a lifelong **global research community**
- **Unleash your creativity** amidst the beauty of nature
- Unwind at our **award-winning sports facilities**



**Intensive Training
Summer School on**

Emerging Generative AI Trends



- **Essentials of Artificial Intelligence and Machine Learning**

- **Principles of Deep Learning and Neural Network Architectures**

- Linear Regression
- Logistic Regression
- Random Forest
- Decision Trees
- SVM,
- CNN,
- RNN,
- LSTM,
- Mobile Net,
- Efficient Net.

- **Concrete Mathematical Foundations of Generative AI.**

- **Introduction to Generative AI: Concepts and Core Algorithms.**

- Word Embedding Algorithms
 - Word2Vec
 - GLOVE

- **Exploring Deep Learning Architectures in Generative AI.**

- Transformer architecture in detail
- Large Language Models (LLMs)
- Chat-Gpt
- Dalle
- Diffusion Models

1 AI Creator Stack

Prompt Engineering

Turning ideas into repeatable AI workflows

Using AI for research, planning & execution

2 AI Content & Media Studio

Script → Visual → Video pipelines

AI image & video generation

Rapid content prototyping

3 Real-World Uses of AI

AI in Healthcare

AI in Education

AI in Gaming

AI in Movies & VFX

AI in Robotics

4 Ethics & Responsible AI

What are deepfakes?

How to detect fake content

Safe & responsible use of AI

AI and future careers



Gemini



OpenAI



Meta



Grok



Perplexity



Claude



DeepSeek



Midjourney





Biotechnology Summer Lab Program

Interdisciplinary Insights:
*From Artistic Microbial Streaks
to Genetic Sleuthing and
Nanoparticle Microstructure
Analysis*

This interdisciplinary Summer School Research Program aims to integrate Biotechnology artistic expression and scientific exploration, focusing on practical applications such as **"Exploring the World of Streaking Methodology," "Genetic Sleuths: Unmasking the Mystery Species through Sequence Sleuthing,"** and **"Investigating Nanoparticle Microstructure using Field Emission Scanning Electron Microscope (FESEM)."**

1. "Exploring the World of Streaking Methodology: A Creative Journey for the Summer School Students"

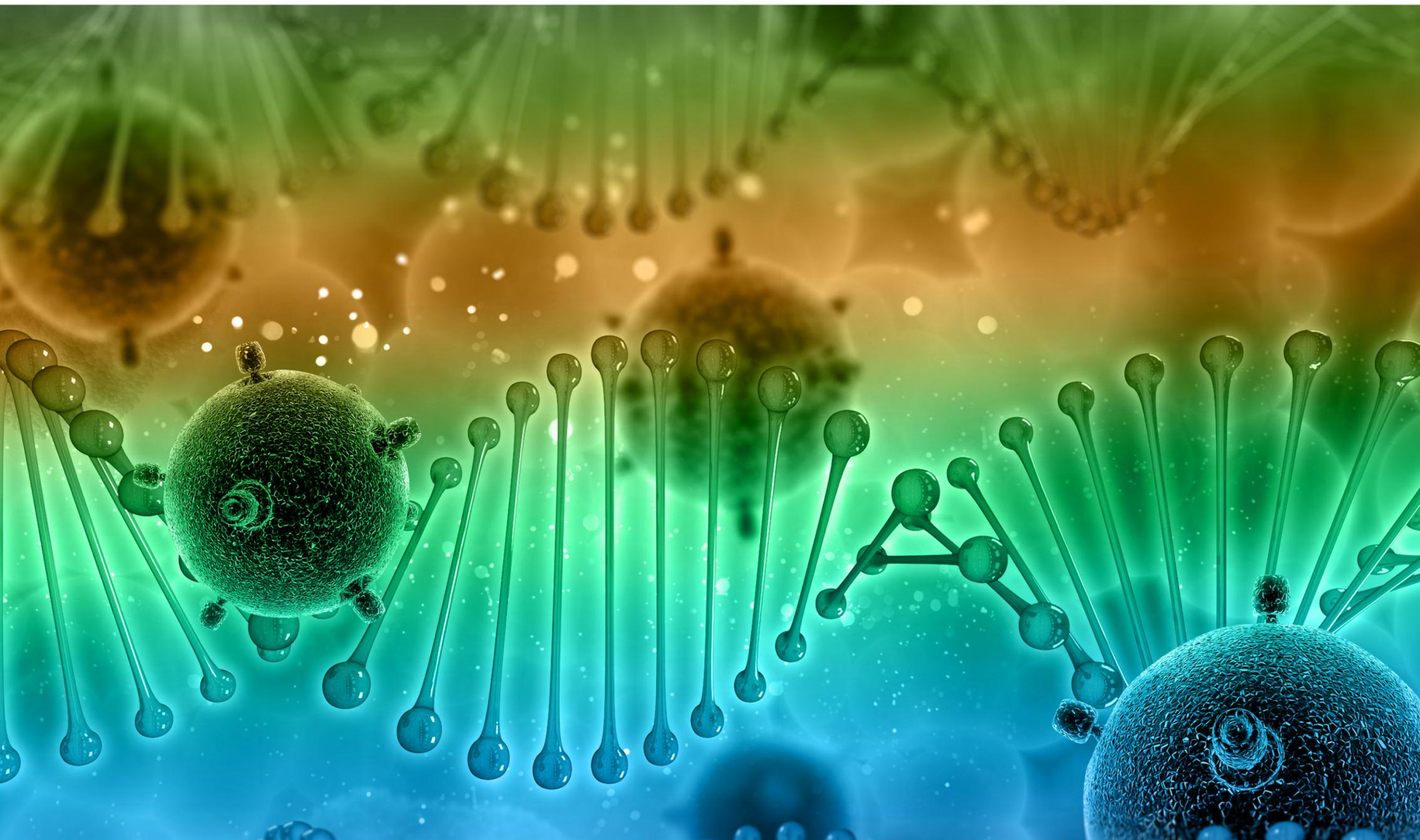
This program aims to introduce students to various streaking methodologies, fostering their creativity and understanding of artistic expression. Streaking, as an art form, goes beyond conventional boundaries, allowing students to experiment with different techniques and styles. From traditional brush strokes to unconventional methods like splatter, pour, and drip painting, participants will explore the vast spectrum of streaking methodologies. The course will emphasize hands-on learning, encouraging students to develop their unique artistic voices while gaining a comprehensive understanding of the historical and contemporary aspects of streaking in the art world. Through a series of engaging workshops, demonstrations, and practical sessions, students will enhance their artistic skills, broaden their perspectives, and gain confidence in expressing themselves through streaking. This course promises a dynamic and enriching experience, providing a platform for young artists to discover and celebrate their creative potential.

2. Genetic Sleuths: Unmasking the Mystery Species through Sequence Sleuthing

Embark on a thrilling journey as bio-detectives in our workshop! Students will become genetic detectives, using sequence similarity and phylogenetic analysis to unveil the identity of an unknown species. Through hands-on exploration, participants will compare DNA sequences, decode the clues, and construct a phylogenetic tree to solve the mystery. Get ready for an exciting blend of biology and investigative skills, as you uncover the secrets of the biological world and sharpen your scientific sleuthing abilities!

3. To study the microstructure of nanoparticles by using Field Emission Scanning Electron Microscope

To investigate the microstructure of nanoparticles a sample will be prepared and loaded into the FESEM chamber. The sample will be observed by using the microscope at optimized working distance and acceleration voltage. The demonstration will help students to understand the basics of the FESEM working and sample preparation. Additionally, the data interpretation will be demonstrated.



Research Outcomes:

Course 1: Exploring the World of Streaking Methodology

Research Outcome:

- Participants will develop a diverse Knowledge of streaking techniques, showcasing their creative expression.
- Increased understanding of the historical and contemporary aspects of streaking in the art world.
- Enhanced confidence and proficiency in expressing oneself through various streaking methodologies.

Course 2: Genetic Sleuths: Unmasking the Mystery Species through Sequence Sleuthing

Research Outcome:

- Participants will acquire practical skills in genetic analysis, including sequence comparison and phylogenetic tree construction.
- Increased understanding of bioinformatics tools and their application in solving biological mysteries.
- Improved scientific sleuthing abilities through hands-on exploration of DNA sequences.





Course 3: Investigating Nanoparticle Microstructure using FESEM

Research Outcome:

- Participants will gain practical experience in sample preparation and FESEM operation.
- Improved understanding of nanoparticle microstructure through direct observation at optimized working distance and acceleration voltage.
- Enhanced skills in data interpretation and analysis, crucial for future research in nanotechnology.

Overall Impact:

- Participants will benefit from a holistic learning experience, bridging the gap between artistic expression and scientific investigation.
- Increased interdisciplinary awareness, fostering a well-rounded approach to problem-solving.
- Participants will be equipped with valuable skills and knowledge applicable to both artistic and scientific endeavours, promoting versatility and adaptability.

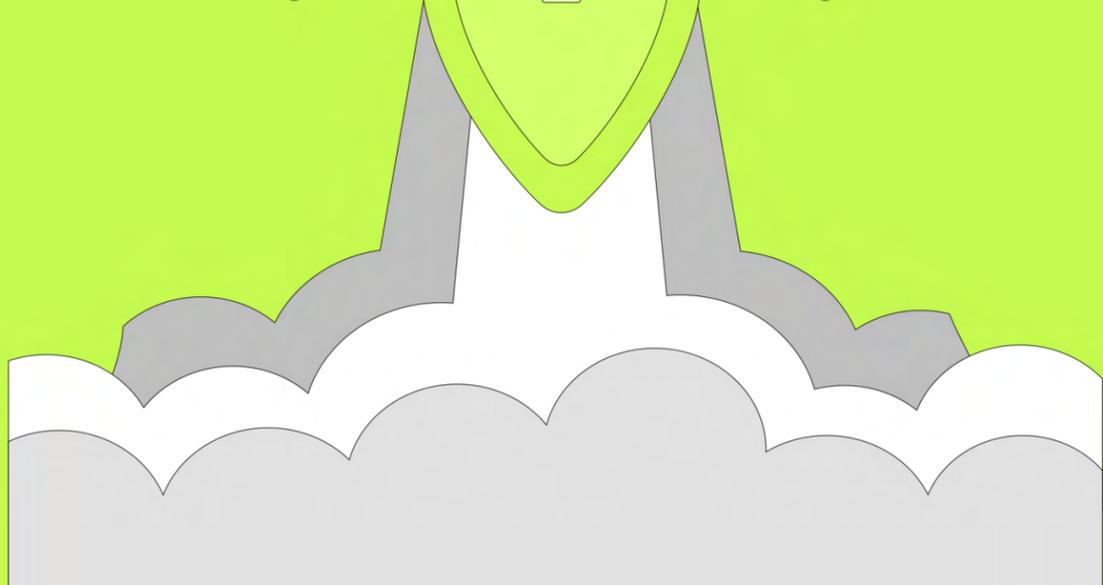
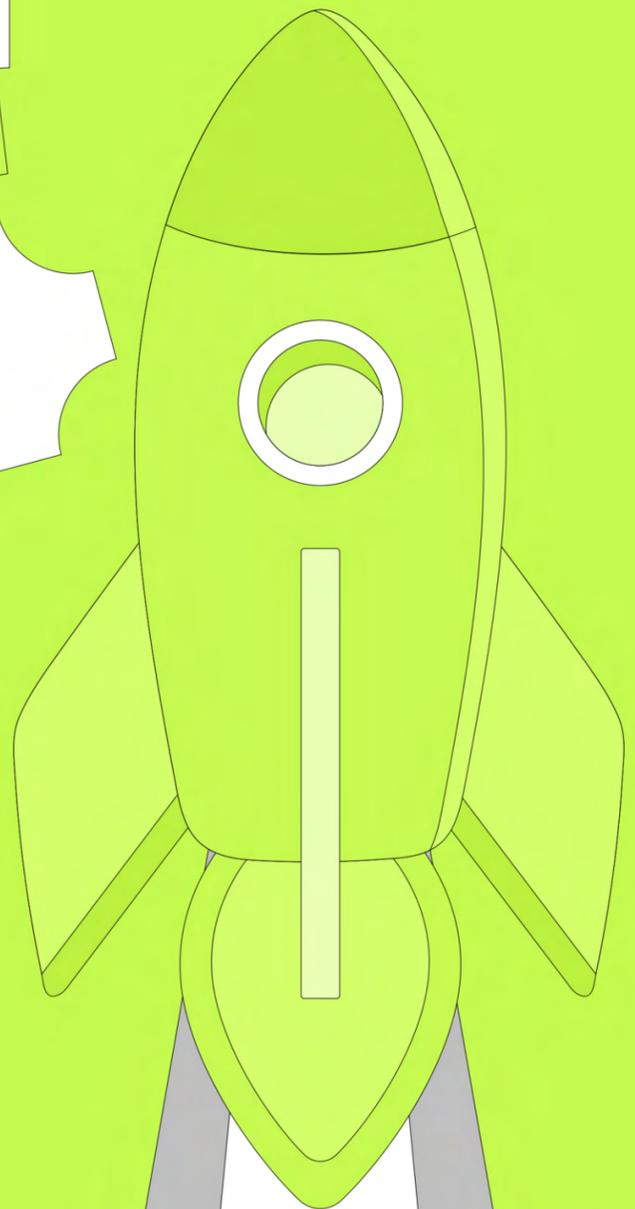
This interdisciplinary program not only promises a dynamic and enriching educational experience but also sets the stage for participants to become versatile individuals capable of contributing to various fields, bridging the gap between art and science.



**SUMMER
LAB
PROGRAM**
& Summer Patent School

SUCCESS

STORIES



Young Research Fellow 2022

HARPUNEET SINGH

Learning Paths School, Mohali



Now a Freshman in CS
(Computer Science) at



UNIVERSITY OF
TORONTO



Young Research Fellow 2023

ANAHITA NAIDU

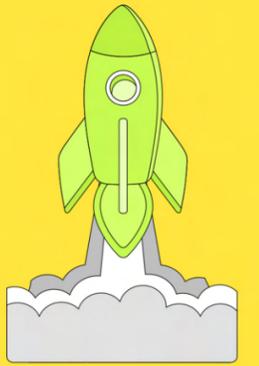
The Emerald Heights International School, Indore



Now CS Major on a
Scholarship worth ₹2 Cr at

S Syracuse
University





Young Research Fellow 2023



ARYA MISHRA

The Emerald Heights International School, Indore

Now a Computer
Science Major at



Young Research Fellow 2023

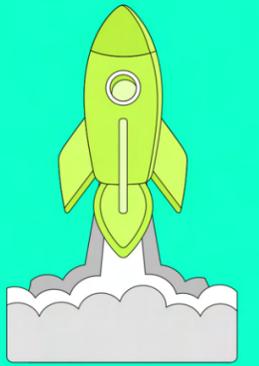


PARLEEN KAUR BAGGA

The Emerald Heights International School, Indore

Now Computer Science
Freshman at





Young Research Fellow 2023

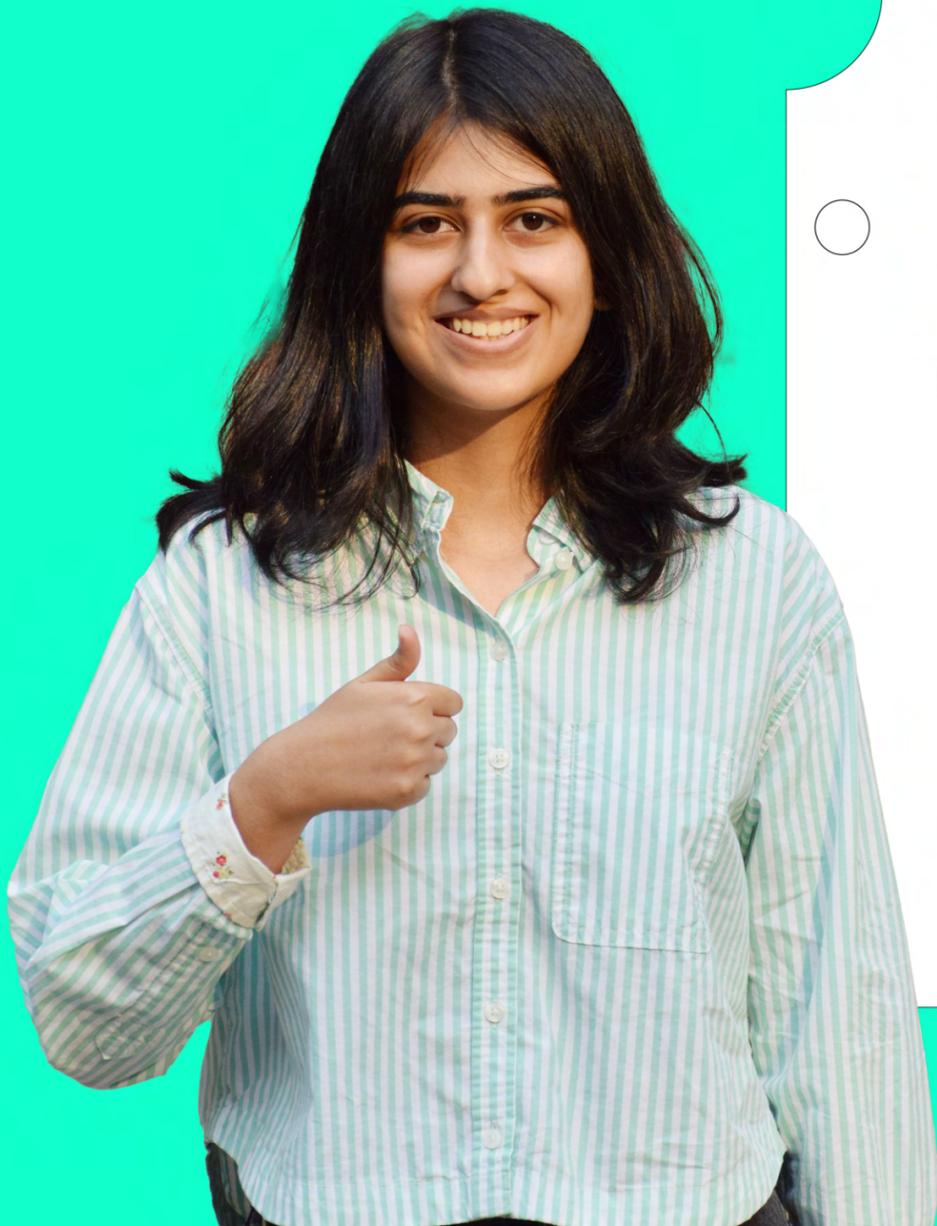


NIA BARJATYA

The Emerald Heights International School, Indore

Now a Finance major on a
Scholarship Worth 1.3 Cr. at

Ohio
Wesleyan
University



Young Research Fellow 2023



MEHRAMAT KAUR SIDHU

Mayo College Girls School

Now a CS Major at



THE UNIVERSITY
OF BRITISH COLUMBIA



Finding your flow workshop on
Ideation Through Yoga



Learning session with one of the world's
Top Natural Resource scientists
Dr. YS Negi



Walkabout with the VC
Prof Atul Khosla



Cultivating Creative Growth Through Planting
Nurturing Innovation



Brainstorming ideas and execution
Classroom Collab



SUMMER LAB PROGRAM 2026

Applications are now open!

Shikha Sood
shikha@shooliniuniversity.com
9814 931 628

Vinmre Kaushal
Vinmre@shooliniuniversity.com
6239 614 060



Shoolini University
Kasauli Hills, Solan, HP
(90 mins from Chandigarh)