Shoolini University

Local Education Programmes on Climate

2025





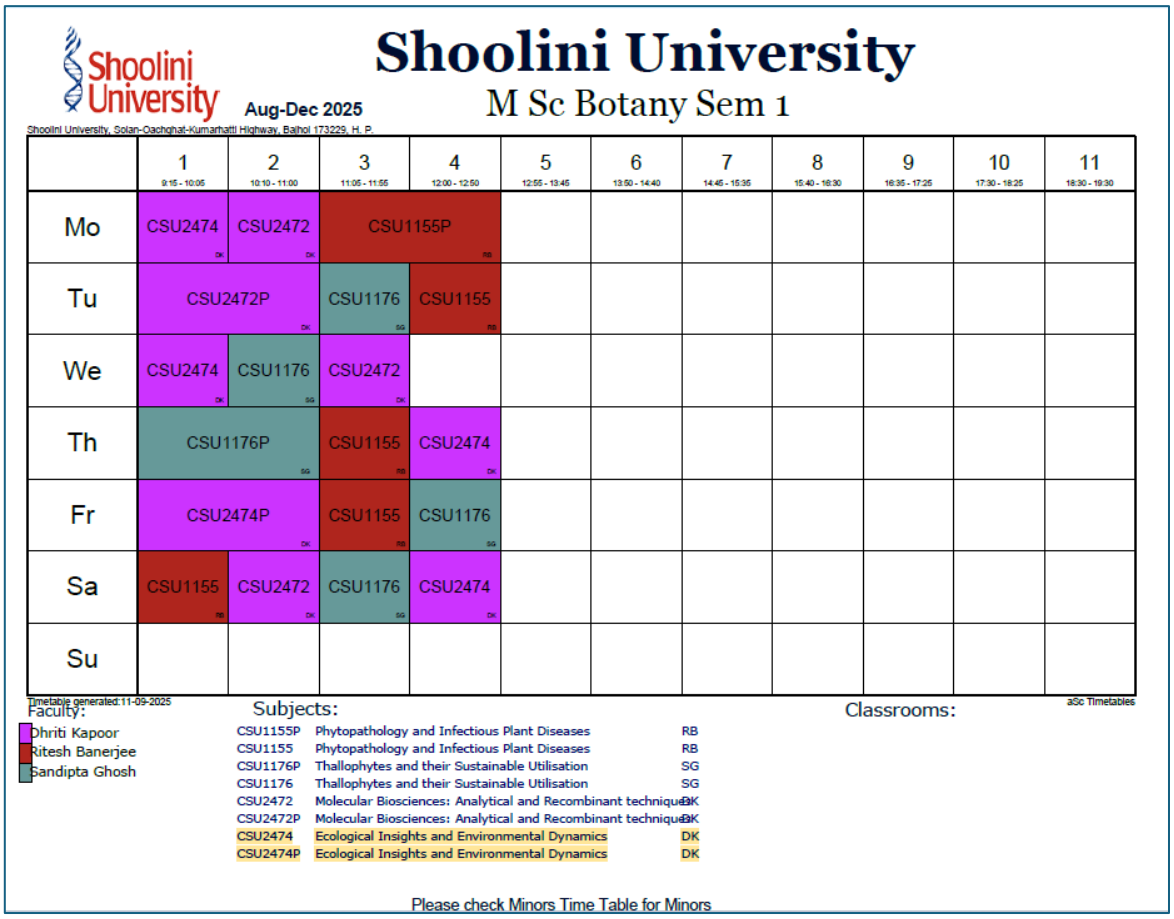


Shoolini University of Biotechnology and Management Sciences,
Solan, Himachal Pradesh, India-173229

13.3.1 Local education programmes on climate

Shoolini University promotes **climate education and sustainability awareness through academic programmes and community-based initiatives** that address climate change, environmental protection, mitigation, and adaptation. These efforts aim to enhance climate awareness among students and local communities while encouraging environmentally responsible practices.

Through its Centre of Excellence in Energy Science and Technology (CEEST), the University supports scientific learning and sustainability awareness through educational activities and practical initiatives. Furthermore, the integration of environmental and sustainability-related courses into academic programmes, including **Environmental Science, Ecological Insights and Environmental Dynamics, and The Diversity of Life**, provides students with opportunities to understand ecological systems, biodiversity, and environmental challenges. These educational initiatives contribute to building environmental awareness and advancing the University's commitment to SDG 13 (Climate Action) and SDG 4 (Quality Education).



Shoolini University

Aug-Dec 2025

Shoolini University, Solan-Oachghat-Kumarhatti Highway, Baihol 173229, H. P.

Shoolini University

M Sc Botany Sem 1

	1 9:15 - 10:05	2 10:10 - 11:00	3 11:05 - 11:55	4 12:00 - 12:50	5 12:55 - 13:45	6 13:50 - 14:40	7 14:45 - 15:35	8 15:40 - 16:30	9 16:35 - 17:25	10 17:30 - 18:25	11 18:30 - 19:30
Mo	CSU2474 DK	CSU2472 DK	CSU1155P RB								
Tu	CSU2472P DK		CSU1176 SG	CSU1155 RB							
We	CSU2474 DK	CSU1176 SG	CSU2472 DK								
Th	CSU1176P SG		CSU1155 RB	CSU2474 DK							
Fr	CSU2474P DK		CSU1155 RB	CSU1176 SG							
Sa	CSU1155 RB	CSU2472 DK	CSU1176 SG	CSU2474 DK							
Su											

Timetable generated:11-09-2025

aSc Timetables

Faculty:
- Dhriti Kapoor
- Ritesh Banerjee
- Sandipta Ghosh

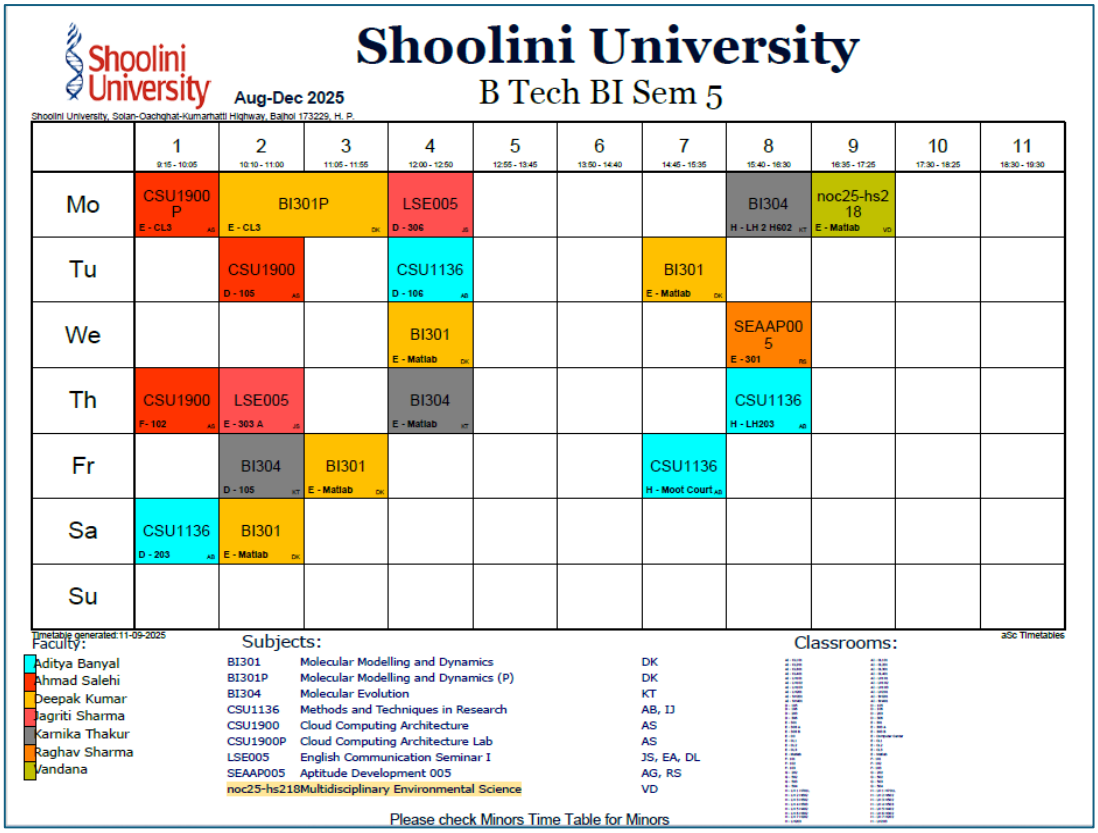
Subjects:

CSU1155P	Phytopathology and Infectious Plant Diseases	RB
CSU1155	Phytopathology and Infectious Plant Diseases	RB
CSU1176P	Thallophytes and their Sustainable Utilisation	SG
CSU1176	Thallophytes and their Sustainable Utilisation	SG
CSU2472	Molecular Biosciences: Analytical and Recombinant techniques	DK
CSU2472P	Molecular Biosciences: Analytical and Recombinant techniques	DK
CSU2474	Ecological Insights and Environmental Dynamics	DK
CSU2474P	Ecological Insights and Environmental Dynamics	DK

Classrooms:

Please check Minors Time Table for Minors

M.Sc Botany - Timetable of Ecological Insights and Environmental Dynamics



Shoolini University

B Tech BI Sem 5

Aug-Dec 2025

Shoolini University, Solan-Oachghat-Kumarhatti Highway, Baihol 173229, H. P.

	1 (9:15 - 10:05)	2 (10:10 - 11:00)	3 (11:05 - 11:55)	4 (12:00 - 12:50)	5 (12:55 - 13:45)	6 (13:50 - 14:40)	7 (14:45 - 15:35)	8 (15:40 - 16:30)	9 (16:35 - 17:25)	10 (17:30 - 18:25)	11 (18:30 - 19:30)
Mo	CSU1900P E - CL3 AS	BI301P E - CL3 DK		LSE005 D - 306 JS				BI304 H - LH 2 H602 KT	noc25-hs218 E - Matlab VD		
Tu		CSU1900 D - 105 AS		CSU1136 D - 106 AB			BI301 E - Matlab DK				
We				BI301 E - Matlab DK				SEAAP005 E - 301 RS			
Th	CSU1900 F - 102 AS	LSE005 E - 303 A JS		BI304 E - Matlab KT				CSU1136 H - LH203 AB			
Fr		BI304 D - 105 KT	BI301 E - Matlab DK				CSU1136 H - Moot Court AS				
Sa	CSU1136 D - 203 AB	BI301 E - Matlab DK									
Su											

Timetable generated:11-09-2025 aSc Timetables

Faculty:

Aditya Banyal
Ahmad Salehi
Deepak Kumar
Jagriti Sharma
Karnika Thakur
Raghav Sharma
Vandana

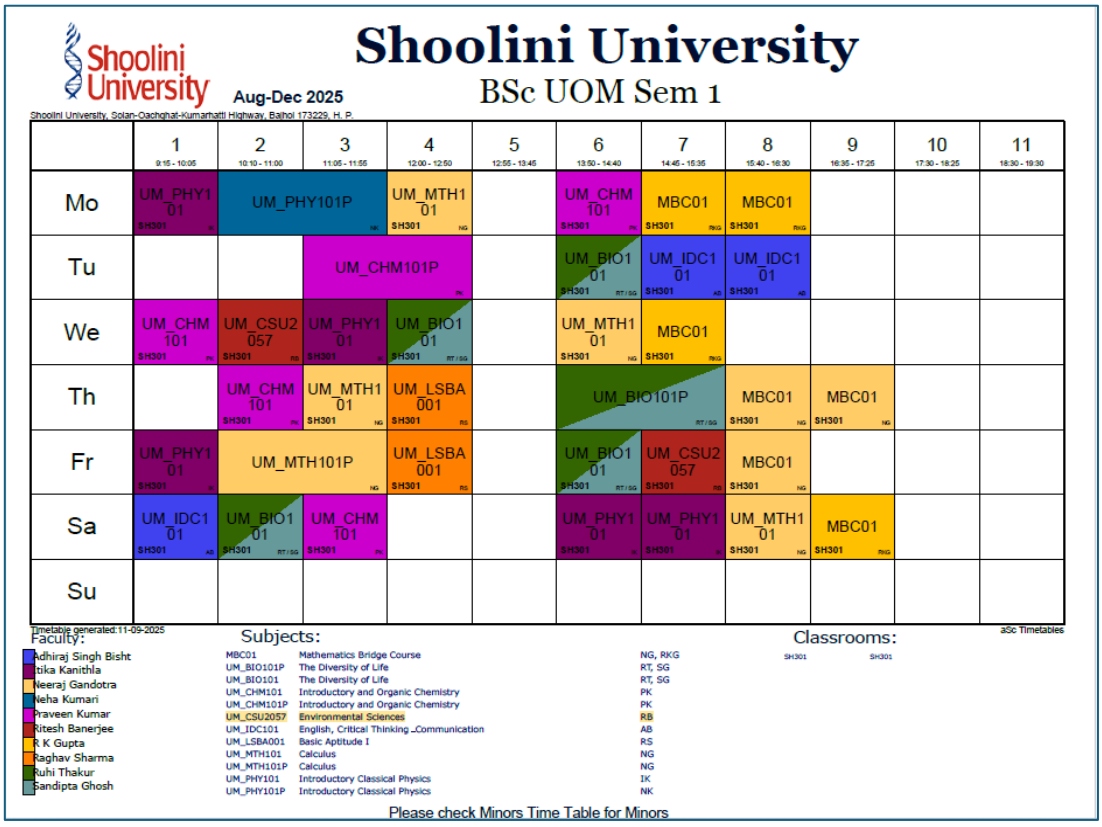
Subjects:

BI301	Molecular Modelling and Dynamics	DK
BI301P	Molecular Modelling and Dynamics (P)	DK
BI304	Molecular Evolution	KT
CSU1136	Methods and Techniques in Research	AB, IJ
CSU1900	Cloud Computing Architecture	AS
CSU1900P	Cloud Computing Architecture Lab	AS
LSE005	English Communication Seminar I	JS, EA, DL
SEAAP005	Aptitude Development 005	AG, RS
noc25-hs218	Multidisciplinary Environmental Science	VD

Classrooms:

Please check Minors Time Table for Minors

B Tech Bioinformatics - Timetable of Environmental Science



Shoolini University

BSc UOM Sem 1

Aug-Dec 2025

Shoolini University, Solan-Oachghat-Kumarhatti Highway, Baihol 173229, H. P.

	1 (9:15 - 10:05)	2 (10:10 - 11:00)	3 (11:05 - 11:55)	4 (12:00 - 12:50)	5 (12:55 - 13:45)	6 (13:50 - 14:40)	7 (14:45 - 15:35)	8 (15:40 - 16:30)	9 (16:35 - 17:25)	10 (17:30 - 18:25)	11 (18:30 - 19:30)
Mo	UM_PHY101 SH301 IK	UM_PHY101P NK		UM_MTH101 SH301 NG		UM_CHM101 SH301 PK	MBC01 SH301 RKG	MBC01 SH301 RKG			
Tu			UM_CHM101P PK			UM_BIO101 SH301 RT / SG	UM_IDC101 SH301 AB	UM_IDC101 SH301 AB			
We	UM_CHM101 SH301 PK	UM_CSU2057 SH301 RB	UM_PHY101 SH301 IK	UM_BIO101 SH301 RT / SG		UM_MTH101 SH301 NG	MBC01 SH301 RKG				
Th		UM_CHM101 SH301 PK	UM_MTH101 SH301 NG	UM_LSBA001 SH301 RS		UM_BIO101P RT / SG		MBC01 SH301 NG	MBC01 SH301 NG		
Fr	UM_PHY101 SH301 IK	UM_MTH101P NG		UM_LSBA001 SH301 RS		UM_BIO101 SH301 RT / SG	UM_CSU2057 SH301 RB	MBC01 SH301 NG			
Sa	UM_IDC101 SH301 AB	UM_BIO101 SH301 RT / SG	UM_CHM101 SH301 PK			UM_PHY101 SH301 IK	UM_PHY101 SH301 IK	UM_MTH101 SH301 NG	MBC01 SH301 RKG		
Su											

Timetable generated:11-09-2025 aSc Timetables

Faculty:

Adhiraj Singh Bisht
Ankita Kanithla
Neeraj Gandotra
Neha Kumari
Praveen Kumar
Ritesh Banerjee
R K Gupta
Raghav Sharma
Ruhi Thakur
Sandipta Ghosh

Subjects:

MBC01	Mathematics Bridge Course	NG, RKG
UM_BIO101P	The Diversity of Life	RT, SG
UM_BIO101	The Diversity of Life	RT, SG
UM_CHM101	Introductory and Organic Chemistry	PK
UM_CHM101P	Introductory and Organic Chemistry	PK
UM_CSU2057	Environmental Sciences	RB
UM_IDC101	English, Critical Thinking -Communication	AB
UM_LSBA001	Basic Aptitude I	RS
UM_MTH101	Calculus	NG
UM_MTH101P	Calculus	NG
UM_PHY101	Introductory Classical Physics	IK
UM_PHY101P	Introductory Classical Physics	NK

Classrooms: SH301 SH301

Please check Minors Time Table for Minors

B.Sc University of Mella borne (Dual Degree) - Timetable of Environmental Science

Shoolini's strong academic foundation in climate and environmental education further distinguishes it as a regional leader in sustainability-focused higher education. The University offers a wide spectrum of specialized programmes, including a **Ph.D. in Environmental Sciences**, **Ph.D. in Energy**, **Renewable Energy and Climate Change**, **M.Tech in Energy Technology**, **B.Sc and M.Sc in Agriculture, M.Sc. in Soil Science and Agricultural Chemistry, PhD Agriculture (Agronomy, Agricultural Extension), M Tech Climate Science and Sustainable Development**. These diverse and future-focused programmes equip students and professionals with cutting-edge knowledge and practical skills to tackle the pressing challenges of climate change and environmental degradation.

Shoolini University's published list of electives addressing SDGs 13 (Climate Action):

Sr. No.	Course Name	Course Code	Programme	Relevant SDG(s)
1	Sustainable Leadership for Environmental Happiness	CSU2034	UG	SDG 13 – Climate Action; SDG 17 – Partnerships for the Goals
2	Ecology and Environment History	CSU715	UG	SDG 13 – Climate Action
3	Climate Crisis: Issues, Impacts & Adaptations	CSU1429	UG	SDG 13 – Climate Action

Activities for Local education programmes on climate:

<u>Activity 01:</u> International Earth Day Celebration

SDG 4: Quality Education, SDG 7: Affordable and Clean Energy, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production & SDG 13: Climate Action.

Venue: Covered Parking, Shoolini University

On April 24th, 2025, Shoolini University came alive with the spirit of Earth Day through a vibrant, purpose-driven celebration that united sustainability, innovation, and artistic expression. At the heart of the event was the Inter-School Eco-Challenge , where nine schools competed passionately across four dynamic categories: Clean Energy Live Demo, Waste-to-

Wonder DIY Challenge, Green Bazaar Exhibition, and Poster Making. Each school brought forward incredible creativity and collaboration—demonstrating working models of clean energy, repurposing waste into functional and beautiful products, setting up stalls that embodied the 3Rs (Reduce, Reuse, Recycle), and crafting thought-provoking posters under the theme "Our Power, Our Planet." This spirited challenge ignited both friendly competition and a deeper commitment to environmental stewardship.



International Earth Day Event Poster 2025



Prof. P.K. Khosla, Chancellor at the International Earth Day Event interacting with students

<u>Activity 02:</u> Walking into a Greener Tomorrow: Campus Tour (Induction 2025)

SDG 7 Affordable and Clean Energy, SDG 3: Good Health & Well-being, SDG 4: Quality Education SDG 6: Clean Water and Sanitation, SDG 7: Affordable and Clean Energy, SDG 11: Sustainable Cities and Communities, SDG 12: Responsible Consumption and Production**, SDG 13: Climate Action** & SDG 15: Life on Land

Date: August 21-23, 2025

The Campus Tour organized during Induction 2025 between 21st and 23rd August was carefully designed to introduce freshers to their new academic home while embedding within them a sense of responsibility towards the environment. More than just an orientation walk, it was a guided journey into the sustainable heartbeat of the university, where every building, pathway, and practice reflects the institution's green commitment.

One of the most memorable stops on the tour was the Yogananda Library—a symbol of both learning and sustainability. Students were welcomed by colorful, student-friendly posters placed throughout the library, each carrying engaging messages on themes such as energy conservation, water management, and responsible consumption. Walking through the aisles, freshers were not only introduced to academic resources but also to the green principles guiding the campus. Beyond the library, the tour covered a series of sustainability-rich spaces across campus. At the solar rooftops, students learned how clean energy powers classrooms and laboratories.

Adding a fun and interactive element, the orientation also included classic campus games such as tug-of-war and sack races. These activities fostered team spirit, encouraged collaboration among students, and offered a lighthearted way to reinforce the values of participation, fairness, and community engagement.

The impact of the tour was both immediate and lasting. Over 400 students actively participated on each day, with sustainability-themed photographs uploaded during the event. Nearly all participants pledged to adopt eco-friendly practices in their daily routines. The library posters, in particular, received special appreciation for making sustainability messaging both visually appealing and academically relevant, turning the library into not just a space of knowledge, but also of environmental awareness.

In conclusion, the Campus Tour of Induction 2025 successfully oriented students not just to the university's infrastructure but to its values. By highlighting spaces like the library, and green zones, and by making sustainability fun through creative posters and interactive activities, the tour helped freshers recognize that they are part of a campus community where environmental consciousness is a shared responsibility.



Ms. Poonam Nanda, Director, Sustainability and student Engagement in Sustainability Awareness.

<u>Activity 03:</u> Promoting Education, Water Conservation, Clean Energy and Climate Action

Organized by: Shoolini University, Solan, Himachal Pradesh
Date: 24 July 2025
Participating Institution: Army Public School, Dagshai

On 24 July 2025, Shoolini University welcomed 80 Class XII students and four teachers from Army Public School, Dagshai, for a campus visit. The programme provided an opportunity for the visiting students to become familiar with the university environment and explore potential higher education opportunities.

The visit served as a platform for school–university engagement, helping students understand the importance of continued education and informed academic decision-making. It also provides an opportunity to introduce sustainability as an important consideration in education and institutional development, particularly in relation to water conservation, clean energy, and climate responsibility.

The initiative aligns with the following United Nations Sustainable Development Goals:

- **SDG 4 – Quality Education:** Promoting access to educational opportunities and helping students explore pathways to higher education.
- **SDG 6 – Clean Water and Sanitation:** Encouraging awareness of responsible water use, water conservation, and sustainable water management.
- **SDG 7 – Affordable and Clean Energy:** Promoting awareness of renewable energy, energy efficiency, and responsible energy consumption.
- **SDG 13 – Climate Action:** Encouraging environmental responsibility and awareness of climate change and sustainable practices.

The campus visit supported educational outreach by introducing school students to the university environment and encouraging them to explore higher education opportunities, thereby contributing to **SDG 4 (Quality Education)**. The visit also offered a potential platform to raise awareness of **SDG 6 (Clean Water and Sanitation)** through discussions on water conservation, responsible water consumption, and sustainable water management practices; **SDG 7 (Affordable and Clean Energy)** through exposure to renewable energy technologies and energy-efficient practices; and **SDG 13 (Climate Action)** by highlighting the importance of environmental awareness, climate responsibility, and sustainable development. Any specific demonstrations, discussions, or activities related to water conservation, clean energy, or climate action should be documented separately and supported by photographs or other relevant evidence, where applicable.

Total Participants: 84



Students and Teachers from Army Public School, Dagshai

<u>Activity 04:</u> Clean Today, Green Tomorrow – An Empathetic Cleaning Drive at Ashwini Khad

Date: 22 November 2025

Venue: Ashwini Khad

Aligned with Sustainable Development Goals (SDGs): SDG 6 – Clean Water and Sanitation | SDG 11 – Sustainable Cities and Communities | **SDG 13 – Climate Action**

On 22nd November, volunteers of the National Service Scheme (NSS) undertook a meaningful cleaning drive at Ashwini Khad, driven by a shared sense of responsibility toward nature and the local community. The initiative aimed not only to clean the area but also to foster empathy toward the environment by highlighting the impact of human actions on natural ecosystems.

The volunteers actively engaged in the **collection and segregation of waste from water resources**, with a strong focus on removing plastic and other non-biodegradable materials that threaten water quality and harm aquatic life. As the drive progressed, participants observed firsthand how careless disposal of waste affects natural water bodies, reinforcing the importance of mindful and sustainable practices.

Beyond physical cleaning, the activity encouraged **reflection and dialogue** among volunteers about environmental degradation, water conservation, and the need for collective action. The drive served as a learning experience, reminding participants that protecting nature begins with

awareness, care, and everyday choices. The shared effort strengthened teamwork and instilled a deeper sense of connection with the surroundings.

Local passersby and community members were also sensitized during the drive, as volunteers informally communicated the importance of maintaining cleanliness and respecting natural spaces. This interaction helped extend the message beyond the activity itself, encouraging broader community participation in environmental stewardship.

The cleaning drive at Ashwini Khad stood as a heartfelt reminder that **environmental care is an act of compassion**—for nature, for communities, and for future generations. Through this initiative, NSS reaffirmed its commitment to sustainable development, civic responsibility, and youth-led action, demonstrating how empathy and service can come together to create lasting positive change. No. of Volunteers: 40



Volunteers group photograph after natural water-resource clean-up

Activity 05: International Conference on Applied Artificial Intelligence and Innovation (AAIIC 2025)

Organizing Institution: Yogananda School of AI, Computers, and Data Science (YSAICDS), Shoolini University, Solan, Himachal Pradesh, India
Date: 11–12 July 2025
Duration: Two Days International Conference
Participants: Academicians, researchers, faculty members, students, and industry professionals
Conference Theme: Applied Artificial Intelligence and Innovation

The Yogananda School of AI, Computers, and Data Science (YSAICDS) at Shoolini University organized the **International Conference on Applied Artificial Intelligence and Innovation (AAIIC 2025)**, a two-day academic and research event bringing together experts, researchers, academicians, and industry professionals to discuss emerging developments and practical applications of artificial intelligence (AI). The conference provided a platform for knowledge-sharing, interdisciplinary research, international academic interaction, and industry engagement. Various academic and industry fields participated in the event, contributing to discussions on the growing role of AI in education, **energy**, ethics, intelligent systems, automation, manufacturing, and enterprise solutions.

The conference featured international speakers who shared research insights and expertise in emerging AI technologies and their practical applications. Speakers included:

- **Sanjay Misra** – Universidad de Alcalá, as listed in the conference announcement.
- **Shailendra Rathore** – Abertay University, United Kingdom.
- **Yerzhan Kerimbekov** – Zhanibekov University, Kazakhstan.
- **Laura Baitokayeva** – Nazarbayev Intellectual School, Kazakhstan.
- **Tomáš Čech** – Palacký University, Czech Republic.

Major Themes and Areas of Discussion

The conference explored a range of themes related to the development and application of AI, including:

Artificial Intelligence in Energy: Examination of AI applications in energy-related systems and technological innovation.

AI in Education: Discussion of emerging AI applications that can support educational practices, research, and learning processes.

Ethics and Responsible AI: Consideration of ethical questions and the responsible development and application of artificial intelligence.

Intelligent Systems: Exploration of emerging research and applications in intelligent computing and AI-driven systems.

AI in Industry: Discussion of applications in automation, manufacturing, enterprise systems, and industrial operations.

These themes encouraged interdisciplinary dialogue and highlighted the potential of artificial intelligence to address challenges across academic, industrial, and societal contexts.

Relevance to Sustainable Development Goals

SDG 7: Affordable and Clean Energy

The conference included discussions on AI in energy, providing a thematic connection with **SDG 7 – Affordable and Clean Energy**. AI technologies have potential applications in energy-system optimization, energy-demand analysis, operational efficiency, and the integration of emerging energy technologies.

The conference's energy-related discussions therefore offered a platform for exploring the role of AI in energy innovation. However, any claim that specific renewable-energy or energy-efficiency outcomes were achieved would require additional evidence from the conference programme, presentation materials, or proceedings.

SDG 13: Climate Action

Artificial intelligence can contribute to climate-related research through environmental data analysis, climate modelling, monitoring systems, and the development of technology-based approaches to environmental challenges.

AAIIC 2025 promoted discussion and collaboration around applied AI and innovation, creating a potential connection with technology-driven approaches to sustainability. Nevertheless, the available conference description does not establish a dedicated climate-action session or a

measured climate impact. A direct SDG 13 claim should therefore be supported by relevant presentation titles, abstracts, or session documentation.

Outcomes and Significance

The conference brought together 72 participants from academic and industry fields and provided opportunities to:

1. Exchange research knowledge and perspectives on emerging artificial intelligence technologies.
2. Encourage international academic interaction and interdisciplinary collaboration.
3. Connect academic research with industry applications in automation, manufacturing, and enterprise solutions.
4. Explore AI applications across energy, education, ethics, and intelligent systems.
5. Highlight opportunities for collaboration between researchers, students, and industry professionals.

Suggested Supporting Evidence



AAIIC 2025, academia and industry experts



Dr. Ashish Khosla Session on AI and Innovation

Education for the Underprivileged

Parivartan - Educational Initiative: Shoolini University has launched the "Parivartan" educational initiative, a student-led program aimed at providing quality education to children from nearby schools, particularly those from underprivileged backgrounds. This initiative ensures that these children have access to educational resources and opportunities that they might otherwise be deprived of. By actively involving university students in teaching and mentoring, Parivartan not only contributes to the educational growth and empowerment of these children but also fosters a strong sense of social responsibility, inclusivity, and empathy among the students of Shoolini University. Through this initiative, the university is making significant strides toward bridging educational gaps and uplifting the community.



Ms. Poonam Nanda, Director, Sustainability visit Govt. Primary School, Manjholi providing quality education to children

Shoolini University's Outreach Initiatives Supporting SDG 13: Climate Action

Activity 01: Three-Day Nature Camp: Promoting Climate and Biodiversity Awareness at Centre for Science Learning & Creativity (CSLC), Science Museum

Shoolini University, through the CSLC Science Museum, engaged students from Solan in a three-day Nature Camp designed to strengthen their understanding of science, nature, and environmental conservation. The programme included **birdwatching, plant identification, expert talks on climate change and biodiversity, eco-games, art activities, and team-based learning**. These interactive activities helped students understand the importance of biodiversity, ecological balance, and the protection of natural ecosystems. The expert sessions on climate change encouraged awareness of environmental challenges and the need for responsible action. Through experiential learning beyond traditional classrooms, the initiative supported environmental literacy and the objectives of SDG 13: Climate Action, while also contributing to SDG 15: Life on Land.

NATURE MEETS CURIOSITY: NURTURING YOUNG EXPLORERS FROM SOLAN

In the heart of Himachal's green belt, students from Solan embarked on a three-day Nature Camp at CSLC—where science met the outdoors.
Through plant identification, birdwatching, eco-puzzles, and sustainability discussions, they became thoughtful young naturalists.
The camp sparked environmental awareness and scientific curiosity, inspiring students to carry the spirit of conservation back to their communities.





Highlights of the Camp

- Nature Trails & Field Visits: Students engaged in bird watching and plant identification, gaining first-hand knowledge about local ecosystems.
- Knowledge Sessions: Experts delivered interactive talks on biodiversity conservation, climate change, and sustainable practices.
- Creative & Team Activities: Eco-themed games, group discussions, and art-based workshops encouraged collaboration and environmental thinking.



Nature Meets Curiosity at CSLC

<u>Activity 02:</u> Astronomy Outreach Programme at GSSS Sarog, near Applewood Farm, Shimla

Shoolini University's Astroverse, the University astronomy club, organised an outreach programme at Govt. Sen. Sec. School Sarog, engaging school students in interactive discussions on astronomy, space science, satellites, nebulae, and constellations. The programme was enriched by the presence of **Shri Rakesh Kanwar (IAS), Education Secretary, Government of Himachal Pradesh**; **Ms. Pooja Malkani, Astronomer; and Ms. Sarika Ahuja, Principal, GSSS Sarog**. The programme also provided students with an

opportunity to observe Saturn and its moons through a telescope. By taking scientific learning beyond the traditional classroom, the initiative encouraged curiosity, scientific thinking, and awareness of space-based technologies. The discussion of satellites offers an opportunity to connect science education with SDG 13, particularly the potential role of satellite-based Earth observation in understanding environmental and climate-related changes. This climate connection should be highlighted where it was specifically covered during the session.



Students of GSSS Sarog enthusiastically observe Saturn and its moons through a telescope

Conclusion

Shoolini University demonstrates its commitment to SDG 13: Climate Action by integrating climate and environmental education into academic curricula, campus activities, and community outreach programmes. During 2025, the University undertook a range of initiatives, including the International Earth Day Celebration, sustainability-focused campus tours, school engagement programmes, the three-day Nature Camp at the CSLC Science Museum, and astronomy outreach at GSSS Sarog. These activities provided students and local communities

with opportunities to learn about climate change, biodiversity conservation, environmental protection, clean energy, and responsible resource use through interactive and experiential learning. The University further strengthened climate literacy through specialized academic programmes, environmental science courses, and climate-related electives, while initiatives such as the Ashwini Khad cleaning drive encouraged practical environmental responsibility and community participation. Engagement with school students, teachers, experts, and local stakeholders helped extend sustainability education beyond the university campus. Collectively, these efforts reflect Shoolini University's commitment to making climate education accessible, promoting environmentally responsible behaviour, and developing a sustainability-conscious society. Through continued academic and community-based initiatives, the University contributes to SDG 13 (Climate Action), SDG 4 (Quality Education), and broader sustainable development objectives.