Conscious Water Usage at SRM University - AP

SRM University–AP promotes conscious water usage across its campus. It displays "Save Water" and "Free Drinking Water" signage at its drinking water points, which tells users to refill their bottles, close the tap fully and take only what they need. It fits its buildings with water-saving fixtures, waters its landscape by drip irrigation and sprinklers, measures the water used on campus, and reuses treated wastewater. In calendar year 2025 the university recorded 431,579 kilolitres (KL) of total water consumption and reused 143,535 KL of treated water, about 33 per cent of the total.

1. Awareness Signage at Water Points

The university places awareness messages where people use water. Drinking water points carry a board that reads "Drinking Water" in Hindi and English beside a "Save Water – Don't Waste it" sign with a symbol of a dripping tap that is crossed out. The boards carry the SRM University–AP and Knight Frank logos and are mounted above the water dispensers, so the message is seen every time someone fills a bottle or a cup. Both photographs show the board above a Voltas dispenser, with a row of refill cans below it.



Figure 1. "Drinking Water" and "Save Water – Don't Waste it" board above a water dispenser



Figure 2. The same water point, with refill cans and a feedback poster beside the board

Water points are also marked with a "Free Drinking Water" poster in English, Telugu and Hindi. The poster states that the water is for all students, staff and visitors and gives three short instructions: refill your bottle, close the tap fully, and take only what you need. It ends with the line "Every drop counts. Use water wisely".



Figure 3. "Free Drinking Water" poster with the messages "Refill your bottle", "Close the tap fully" and "Take only what you need"

The university has marked 190 drinking water dispenser points on a campus plan. These include 36 in Ganga-A, 30 in Vedavathi and 29 in the C.V. Raman Block, so the

messages reach students in their hostels and academic blocks. The table below lists the awareness measures.

Awareness measure	What it does
"Save Water – Don't Waste it" board	Mounted above drinking water dispensers, with a crossed-out dripping tap
"Free Drinking Water" poster	Asks users to refill bottles, close the tap fully and take only what they need
Dispenser marking plan	Records 190 drinking water points across the campus

2. Water-Saving Fixtures in Buildings

Conscious water use is built into the buildings. Toilets are fitted with dual-flush systems that offer a full flush of 8 litres and a half flush of 4 litres, so every half flush uses 50 per cent less water than a full flush. Dual-flush toilets are installed in 457 of the 486 washrooms (94 per cent), and all 4,059 taps on the campus are fitted with low-flow fixtures. Urinals are sensor-operated and specified at 0.25 gallon (about 0.95 litre) per flush. Bathroom faucets are specified at 0.5 gallon per minute (about 1.9 litres per minute) and showerheads at 2 gallons per minute (about 7.6 litres per minute), with aerators and pressure regulators fitted to limit flow.

Water is also distributed in a way that reduces waste. The campus has no overhead tanks, which removes overflow and leakage losses, and water is supplied by hydro-pneumatic pressure systems with variable frequency drive control.



Figure 4. Dual-flush plate with separate half and full flush buttons

3. Efficient Irrigation and Landscaping

The landscape is planted and watered to use as little water as practical. Of the 34,577 plants and trees recorded between January 2022 and July 2025, 20,728 (59.9 per cent) are rated drought tolerant and a further 2,721 (7.9 per cent) are moderately drought tolerant. Shrub beds, palm plantings and young fruit trees are watered by drip irrigation, which delivers water slowly at the base of each plant. Lawns are limited to

16,456 square feet and are watered by sprinklers, and tree basins are covered with mulch to keep moisture in the soil. Treated water from the sewage treatment plants is also used for gardening, which accounted for 7,177 KL in 2025.



Figure 5. Drip irrigation tubing laid along a shrub bed beside the walkway



Figure 6. Sprinklers watering the lawn beside the campus walkway

4. Measuring and Reusing Water

The university measures its water use so that it can manage it. Water is metered at the hostel towers, the dormitory, the canteen, the JC Bose block and other points, and the readings are compiled into a month-wise record. The record shows 431,579 KL of total consumption in 2025, about 35,965 KL a month and 1,182 KL a day. Use varied through

the year, from 22,208 KL in June to 47,388 KL in October, which gives the university a baseline against which savings can be measured.

Reuse reduces the demand for fresh water. The four sewage treatment plants treat domestic wastewater, and the treated water is sent through a hydro-pneumatic system to toilet flushing, cooling and gardens. In 2025, 143,535 KL of treated water was recorded: 107,651 KL (75 per cent) for toilet flushing, 28,707 KL (20 per cent) for cooling and 7,177 KL (5 per cent) for gardening. Rainwater is also collected, and the audit records 11 rainwater harvesting systems with a combined capacity of 22 m^3 that recharge groundwater.

5. Learning About Water

The university also builds awareness through its curriculum. Its SDG course mapping lists 62 sustainability and environment courses, of which 18 are mapped to SDG 6 (Clean Water and Sanitation). Water-related courses include Freshwater Resources, Availability and Management of Groundwater Resources, Water Contaminants: Sources, Transport and Remediation Strategies, and Sustainable Remediation Strategies for Water Contaminants. A value-added course in Environmental Science, mapped to 12 SDGs, introduces students from other programmes to these issues.

6. Campus Events That Promote Conscious Water Use

The university also holds events on campus that bring students, researchers and visitors together around water and sustainability. Two are summarised here.

Water Elixir Meet (WE Meet) 2025

The 1st Water Elixir Meet, an international conference organised by the Department of Environmental Science and Engineering, was held at SRM University-AP from 27 February to 1 March 2025, in association with Taipei Tech (Taiwan) and the Institute for Global Environmental Strategies (Japan). It covered water scarcity, pollution, climate change impacts, water quality and treatment technologies, and was attended by 277 people, including 126 external participants. Research scholars and students took part as presenters and volunteers, and the conference produced a compendium of research abstracts and a policy brief.



Figure 7. Flyer of the 1st Water Elixir Meet (WE Meet) 2025



Figure 8. Dignitaries on stage at WE Meet 2025



Figure 9. Delegates and participants of WE Meet 2025

Environmental Sustainability Exhibition (ESE-3.0)

The Environmental Sustainability Exhibition (ESE-3.0) was held on 19 September 2025 at the APJ Abdul Kalam Auditorium, organised by the Department of Environmental Science and Engineering and aligned with SDG 6 and related goals. Undergraduate students presented working models and projects on sustainable development to visitors and faculty, with 242 attendees, including 71 external participants, and more than 150 registrations. The aim was to build a personal commitment to sustainable practices, and prizes of ₹80,000 were distributed to encourage creative solutions.



Figure 10. Flyer of the Environmental Sustainability Exhibition (ESE-3.0)



Figure 11. Dignitaries at the opening of the Environmental Sustainability Exhibition (ESE-3.0)



Figure 12. Student team with their model of a sustainable community with a water body, solar panels and green spaces



Figure 13. Participants and visitors at the exhibition hall

Promoting Conscious Water Usage in the Wider Community: Environmental Sustainability Exhibition (ESE-3.0)

SRM University–AP promotes conscious use of water and other natural resources beyond its own campus through public events that bring together students, faculty and visitors from other institutions. The Environmental Sustainability Exhibition (ESE-3.0), organised by the Department of Environmental Science and Engineering on 19 September 2025, is one such event. It is a national-level exhibition on sustainability, held at the APJ Abdul Kalam Auditorium, in which undergraduate students present projects and models and take part in discussion with sustainability leaders. The key facts are:

- **Open to the wider community:** 242 attendees, including 71 external participants from institutions in Andhra Pradesh, Telangana and other parts of India, along with 167 undergraduate students and 4 faculty.
- **Third consecutive year:** more than 150 registrations were received, and the event has grown into a regional forum for sustainability awareness.
- **SDG 6 and related goals:** the exhibition is aligned with SDG 6 (Clean Water and Sanitation) together with SDG 3, 7, 9, 11, 12 and 13.
- **Student-led:** undergraduate students presented working models, and prizes of ₹80,000 were distributed to encourage creative solutions.

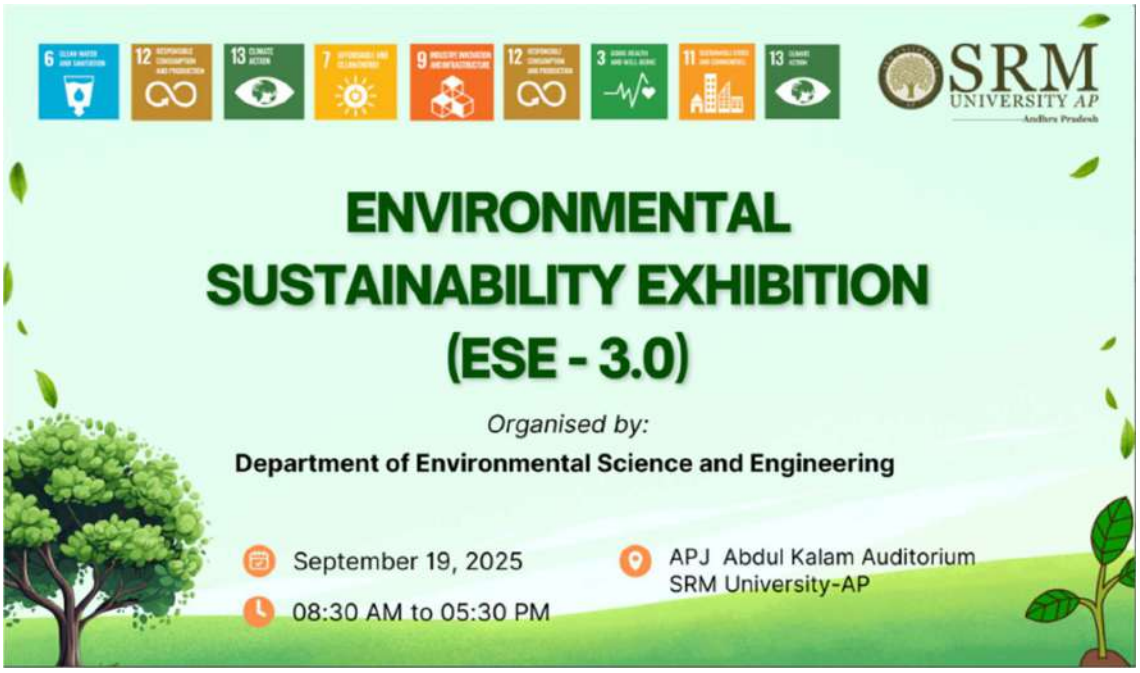


Figure 1. Flyer of the Environmental Sustainability Exhibition (ESE-3.0)

1. About the Exhibition

Item	Details
Event	Environmental Sustainability Exhibition (ESE-3.0), a technical event
Date and time	19 September 2025, 9:00 AM to 5:00 PM
Venue	APJ Abdul Kalam Auditorium, SRM University-AP
Organised by	Department of Environmental Science and Engineering, School of Engineering and Sciences
Coordinators	Dr Shoji D Thottathil, Dr Deep Raj, Dr Nirmalendu Sekhar Mishra and Dr Nirav P Raval
Head of Department	Dr Rangabhashiyam Selvasembian
Chief guest	Vice Chancellor, SRM University-AP
Partner	Admission Department
Subject area	Environmental science and sustainability



Figure 2. Dignitaries on stage at the opening of the Environmental Sustainability Exhibition

2. Objectives

The exhibition was held to reach students and visitors beyond the university with the message that responsible use of natural resources, including water, starts with individual commitment. Its objectives were:

- to highlight transformative initiatives led by undergraduate students;
- to promote understanding of pressing environmental challenges;
- to foster collaboration and knowledge exchange among students, faculty and sustainability leaders;
- to encourage ethical responsibility and active engagement with environmental issues; and
- to cultivate a personal commitment to adopting sustainable practices.

3. Reaching the Wider Community

The exhibition was open to participants from outside the university. Registrations exceeded 150, and strong participation from institutions in Andhra Pradesh and neighbouring Telangana turned the event from a national platform into a focused Southern India forum for sustainability awareness and regional collaboration.

Category of attendee	**Number**
External attendees	71
Faculty	4
Undergraduate students	167
Total	**242**



Figure 3. Participants and visitors at the exhibition hall

For the third consecutive year, the event acted as a national stage for dialogue, innovation and action on sustainability. Participation from reputed institutions across India, together with strong representation from Andhra Pradesh, enriched interdisciplinary exchange and academic networking.

4. Student Projects and Models

Undergraduate teams displayed working models and posters on sustainable development, and explained them to visitors, faculty and fellow students. The models bring together the themes the exhibition is aligned with: water bodies and green spaces, renewable energy such as solar panels and wind turbines, and built areas planned around them. Visitors had the chance to ask questions and discuss each project with the students who built it.



Figure 4. A student explains his sustainability model to visitors and faculty



Figure 5. Student team with their model of a sustainable community with a water body, solar panels and green spaces

5. Recognition and Participation

Prizes worth ₹80,000 were distributed to encourage excellence, creativity and problem-solving among participants, and student volunteers who supported the exhibition received certificates of appreciation.



Figure 6. Prize winners with certificates and prize cheques

6. Contribution to the Sustainable Development Goals

- **SDG 6, Clean Water and Sanitation:** spreading understanding of water and environmental challenges and of responsible use of resources among students and visitors.

- **SDG 12, Responsible Consumption and Production, and SDG 13, Climate Action:** encouraging sustainable practices and ethical responsibility.
- **SDG 3, 7, 9 and 11:** health, clean energy, innovation and sustainable communities, reflected in the student projects.

7. Conclusion

The Environmental Sustainability Exhibition (ESE-3.0) gave SRM University-AP a platform to engage the wider community, including students and visitors from institutions across Andhra Pradesh and Telangana, in responsible and sustainable use of natural resources, including water. With more than 150 registrations, 242 attendees and a third consecutive edition, the exhibition has become a credible regional forum for sustainability awareness and inter-institutional collaboration.

Cooperation on Water Security: Water Elixir Meet (WE Meet) 2025 at SRM University - AP

SRM University–AP works with universities, research institutes, industry and funding bodies in India and abroad to address water security. The clearest example is the 1st Water Elixir Meet (WE Meet) 2025, an international conference on water sustainability and management organised by the Department of Environmental Science and Engineering from 27 February to 1 March 2025, in association with the National Taipei University of Technology (Taipei Tech), Taiwan, and the Institute for Global Environmental Strategies (IGES), Japan. The key facts are:

- **Three-day international conference** with 277 attendees, including 126 external participants, held at SRM University-AP.
- **International partners:** the conference was hosted in association with Taipei Tech (Taiwan) and IGES (Japan), with speakers from Singapore, South Korea, Taiwan, Italy and India.
- **Shared agenda:** water scarcity, pollution, climate change impacts, water quality, membrane technology, desalination and modern water treatment, linked to the Sustainable Development Goals.
- **Outcomes:** new partnerships between academic institutions, industries and policy bodies, a compendium of research abstracts and a policy brief with key recommendations.



Figure 1. Flyer of the 1st Water Elixir Meet (WE Meet) 2025, organised by the Department of Environmental Science and Engineering with Taipei Tech and IGES

1. About the Conference

Item	Details
Event	Water Elixir Meet 1st (WE Meet 2025), an international conference
Dates	27 February to 1 March 2025 (three days, 9 am to 5 pm each day)
Venue	SRM University-AP
Organised by	Department of Environmental Science and Engineering
Chairperson	Dr Rangabhashiyam Selvasembian, Associate Professor and Head of the Department
Associating institutions	National Taipei University of Technology (Taipei Tech), Taiwan, and Institute for Global Environmental Strategies (IGES), Japan

The chief patrons of the conference were the Chancellor, the Pro-Chancellor and the Vice Chancellor of SRM University-AP. An organising committee of faculty from the Department of Environmental Science and Engineering supported the three convenors, and research scholars and M.Sc. students of the department served as volunteers.



Figure 2. Dignitaries on stage at the 1st Water Elixir Meet (WE Meet) 2025

2. Objectives and Themes

WE Meet 2025 brought together scientists, researchers, engineers and policymakers to share research, innovations and insights on water-centred environmental issues, water sustainability and management. It focused on the critical challenges facing water resources, including water scarcity, pollution, climate change impacts and policy, and covered water resource exploration, water quality and the biogeochemical cycling of water bodies. It also discussed sustainable solutions to water scarcity, using membrane technology, desalination and modern water treatment technologies, to achieve the Sustainable Development Goals.

The key objectives were:

- to exchange new knowledge and ideas on innovative technologies and practices for water conservation and management;
- to foster collaborations and partnerships among academia, industry, government agencies and non-governmental organisations;
- to discuss and develop actionable strategies for sustainable water use and management at local, regional and global scales; and
- to give young researchers and professionals a platform to present their work and learn from established experts.

3. Cooperation with Partners and Experts

Water security was addressed through cooperation at several levels: with international academic and policy institutions as associating partners, with keynote and invited speakers from universities and industry in five countries, and with funding agencies and companies that supported the conference.

Associating institutions

Institution	Country	Role
National Taipei University of Technology (Taipei Tech)	Taiwan	Associating institution of WE Meet 2025
Institute for Global Environmental Strategies (IGES)	Japan	Associating institution of WE Meet 2025

The conference proposal also sought association with the International Water Association, Ulsan National Institute of Science and Technology (South Korea), IIT Kharagpur and the National Environmental Engineering Research Institute, Nagpur.

Keynote and invited speakers

Speaker	Affiliation	Country
Prof. Rajasekhar Balasubramanian	National University of Singapore (NUS)	Singapore
Prof. Kwang-Ho Choo	Kyungpook National University	South Korea
Prof. Shiao-Shing (Simon) Chen	Taipei Tech	Taiwan
Dr Yu-Jen Huang	Ever-Clear Environment Pvt. Ltd.	Taiwan
Prof. Fulvia Chiampo	Politecnico di Torino	Italy
Prof. Abhijit Mukherjee	IIT Kharagpur	India
Prof. Mahesh Ganesapillai	VIT Vellore	India

The chief guest, Prof. Rajasekhar Balasubramanian, is Provost's Chair Professor and Group Head (Hydraulics, Hydrology and Climate Resilience) in the Department of Civil and Environmental Engineering at the National University of Singapore. His research focuses on nature-based solutions for urban resilience, he is a Lead Author for the 6th Global Environment Outlook Report of the United Nations Environment Programme, and he has published more than 280 papers.

4. Participation

WE Meet 2025 drew 277 attendees. Registration lists show that external participants came from universities and institutes across India, including BITS Pilani Hyderabad,

NIT Andhra Pradesh, IIT BHU, the Indian Institute of Science and VIT, and students and research scholars from the university took part as presenters and volunteers.

Category of attendee	Number
External participants	126
Faculty	27
PhD scholars and others	106
Postgraduate students	7
Undergraduate students	11
Total	**277**



Figure 3. Delegates and participants of the 1st Water Elixir Meet (WE Meet) 2025

The programme included keynote sessions, technical sessions and poster presentations. Best Oral Presentation and Best Poster Presentation awards were presented, certificates of appreciation were given to volunteers, and travel grants were provided to early-bird registrants.

5. Outcomes of the Cooperation

- **Strategic partnerships** were formed between academic institutions, industries and policy bodies, laying the groundwork for collaborative projects on microplastic pollution, PFAS contamination, saltwater intrusion and circular water economies.
- **Knowledge products:** a compendium of research abstracts and a policy brief capturing the key recommendations were published.

- **Capacity building:** early-career researchers, PhD students and post-doctoral researchers presented their work, took part in technical sessions and poster presentations, and received mentorship.
- **Visibility for the global water agenda:** keynote sessions covered climate-resilient water systems, membrane separation, digital innovations and community-led water stewardship.

6. The Way Forward

Building on the outcomes of WE Meet 2025, the following actions were proposed to carry the cooperation forward:

- WE Meet 2.0 with a larger international exhibition showcasing technologies, start-ups and nature-based solutions in water and wastewater management;
- a series of thematic workshops on PFAS remediation, digital twins in water systems, microplastic monitoring and sustainable coastal management;
- a dedicated platform for student-led innovation and inter-institutional collaboration; and
- expert-led masterclasses, hands-on training sessions and interdisciplinary bootcamps for students, professionals and community stakeholders.

7. Conclusion

Through the 1st Water Elixir Meet 2025, SRM University-AP brought together international and national partners to cooperate on water security. The conference-built partnerships with institutions in Taiwan and Japan, drew speakers from five countries, connected 277 attendees with current research, and produced a compendium of abstracts and a policy brief. The proposed WE Meet 2.0 and the thematic workshops will extend this cooperation.