

# Arab Academy for Science, Technology & Maritime Transport



**Arab Academy**  
for Science, Technology & Maritime Transport



**Report 2023 / 2024**

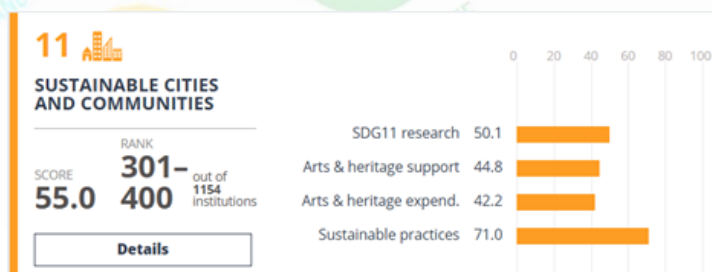


# SDG II

## Our Aim in 2023 -2024

AASTMT is dedicated to advancing the transition towards smart, carbon-neutral, and resilient urban environments by integrating intelligent and efficient green technologies and sustainable infrastructure, while upholding its commitment to social inclusivity and the preservation of art and cultural heritage.

## THE Impact Ranking Scores 2022-2023



## SDG II

## SUSTAINABLE CITIES AND COMMUNICATIONS

### 11 SUSTAINABLE CITIES AND COMMUNITIES





## Key Milestones in 2023-2024

The Arab Academy for Science, Technology and Maritime Transport (AASTMT) continues to champion the vision of SDG11: Making cities and human settlements inclusive, safe, resilient, and sustainable. Building on its impressive achievements from 2022-2023, AASTMT has elevated its commitment to transforming urban futures through innovative education, impactful research, and strategic community partnerships. AASTMT's efforts are anchored around two dynamic pillars, driving change both within its vibrant campus environments and across the wider communities it serves:

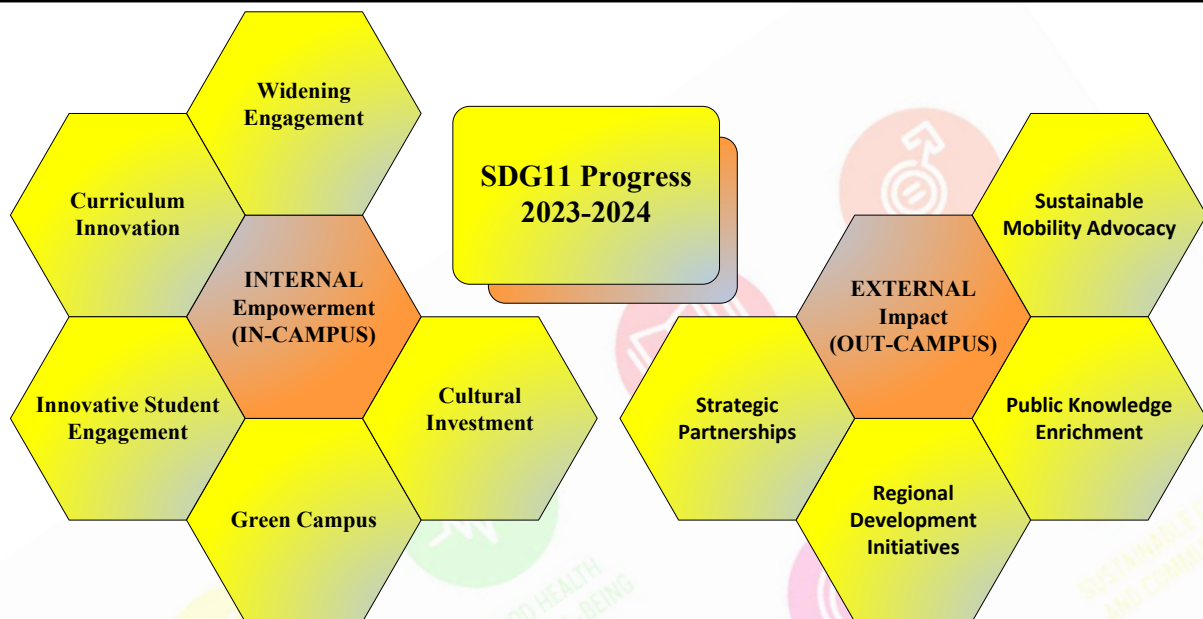
### **In-Campus Community Empowerment (Internally)**

1. **Widening engagement:** Actively inspiring students, faculty, and staff to participate in SDG 11 initiatives while deepening their understanding of interconnected SDGs for holistic sustainability.
2. **Curriculum innovation:** Further embedding sustainable urban development and resilient infrastructure concepts into academic programs, especially in urban planning, environmental management, and maritime studies — cultivating future leaders well-versed in sustainable city-building.
3. **Innovative student engagement:** Participating in different symposiums, workshops and competitions in “Sustainable Development,” fostering creativity and practical solutions for urban challenges.
4. **Green campus transformation:** Accelerating sustainability measures by enhancing energy-efficient infrastructure, intensifying waste minimization and recycling efforts, expanding green spaces, and promoting electric and public transportation usage among the campus community, thereby setting a living example of sustainable urban ecosystems.
5. **Cultural investment:** Amplifying the investment in arts and heritage by 23.4%, recognizing their vital role in nurturing inclusive, vibrant, and resilient urban societies.

### **Out-Campus Community Impact (Externally)**

1. **Strategic partnerships:** Strengthening collaborations with governmental bodies and NGOs, exemplified by the landmark AASTMT & Ministry of Transport partnership, and Alexandria agreement to co-create projects that upgrade urban infrastructure and public services — directly contributing to safe and sustainable cities.
2. **Regional development initiatives:** Spearheading the growth of the “El Alamein” and “Aswan” branches, pioneering the revitalization of underpopulated areas through sustainable urban reconstruction and community-driven development.
3. **Public knowledge enrichment:** Expanding the role of AASTMT libraries as accessible hubs of knowledge and sustainability awareness for broader society.
4. **Sustainable mobility advocacy:** Elevating public consciousness around electric vehicles as clean, efficient, and sustainable transportation options, aligning with SDG 11's vision for reducing urban pollution and fostering resilient transport networks.





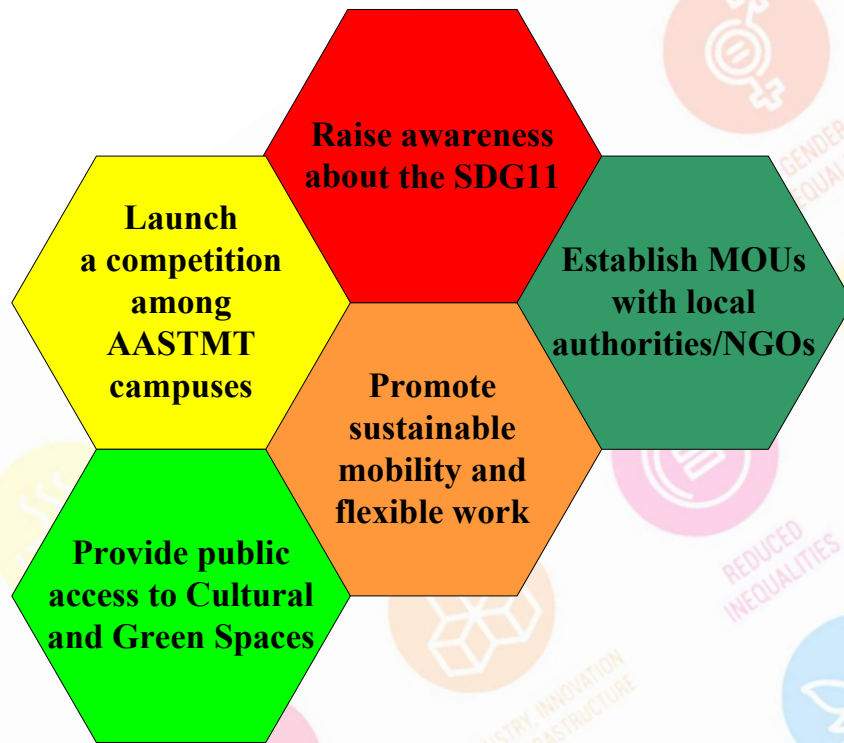
## Community Engagement

AASTMT's unwavering commitment to SDG 11 is powerfully reflected through a suite of innovative initiatives and programs designed to foster sustainable urban development and community well-being. AASTMT's 2023-2024 engagements strategically harness awareness, collaboration, and accessibility to create lasting urban impact:

1. **Raise awareness about SDG 11 through the "Save Energy, Cut Carbon" Campaign**, utilizing digital dashboards and campus-wide electronic boards to display real-time energy data and actionable tips for reducing the carbon footprint in daily urban life.
2. **Launching the "Uni-Green" Climate Change Competition**, funded by the European Union. AASTMT hosts this major event alongside workshops and hackathons (such as the *Smart Cities Challenge*) that bring together students, experts, and local startups to innovate solutions for waste management, renewable energy, and resilient urban infrastructure.
3. **Establish Strategic Partnerships (MOUs) for Heritage Regeneration**, most notably through the TOURITAGE project and collaboration with the Life Makers Foundation. AASTMT collaborates with these stakeholders to address urban planning issues, aiming to regenerate historic districts and ensure local communities have inclusive access to cultural heritage and economic opportunities.
4. **Promote Sustainable Mobility and Flexible Work**, by officially launching the **"AASTMT Car Pooling" initiative** and expanding the university bus network to reduce single-occupancy vehicle reliance. This is complemented by continued policies supporting remote work and condensed working weeks to alleviate peak-hour traffic congestion.
5. **Provide public access to Cultural and Green Spaces**, specifically by opening campus gates for the "Arab Cultural Heritage Day" and hosting public exhibitions at the Aswan



and Smart Village campuses. These events provide the wider community free access to AASTMT's green landscapes and cultural exhibitions, fostering a deeper connection between the university and the city.



## Events

### Public Access to Buildings

**Public Engagement with Science, Culture, and Maritime Heritage:** AIDA IV Maritime Heritage: The historic training ship AIDA IV, gifted by JICA in 1992, remains a public maritime heritage asset. It is not only a central part of cadet training but also a cultural and historical symbol accessible to visitors, preserving Egypt's maritime legacy.



<https://highlights.aast.edu/aast/aida-iv-more-than-just-a-ship-a-floating-maritime-academy/>  
[https://www.aast.edu/en/campuses/portsaid/contenttemp.php?page\\_id=38800110](https://www.aast.edu/en/campuses/portsaid/contenttemp.php?page_id=38800110)





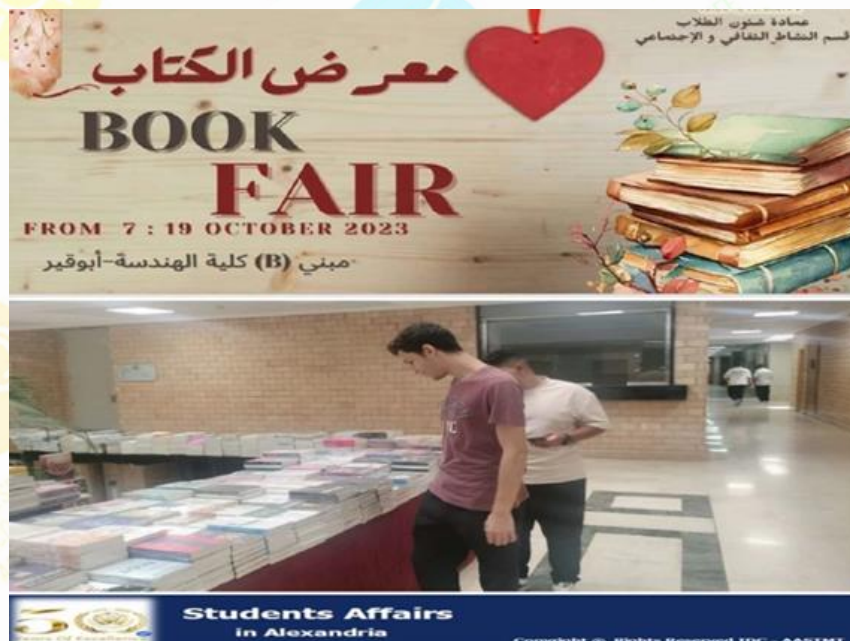
**Hosting Global Competitions and Events: International Collegiate Programming Contest (ICPC):** AASTMT hosts ICPC competitions at both national and international levels, including the 2024 World Finals in Luxor under the patronage of H.E. President Abdel Fattah El-Sisi. The event brought together thousands of participants from 111 countries, providing a platform for innovation, collaboration, and STEM engagement.



[https://aast.edu/en/colleges/ccit/heliopolis/contenttemp.php?page\\_id=34500116](https://aast.edu/en/colleges/ccit/heliopolis/contenttemp.php?page_id=34500116)  
<https://highlights.aast.edu/aast/luxor-the-capital-of-civilisation-prepares-to-embrace-the-worlds-programming-championship/>  
[https://www.aast.edu/en/news/news-details.php?language=1&unit\\_id=345&news\\_id=486102241&event\\_type\\_id=1](https://www.aast.edu/en/news/news-details.php?language=1&unit_id=345&news_id=486102241&event_type_id=1)  
[https://www.youtube.com/watch?v=m1\\_UvkywR5U](https://www.youtube.com/watch?v=m1_UvkywR5U)

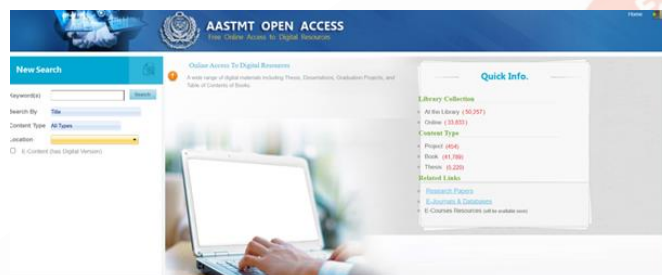
## Public Access to Libraries

**Public Engagement with Knowledge, Culture, and Research: Reading Club Initiative:** AASTMT launched the Reading Club to foster vibrant communities engaged in reading, discussion, and innovation. This initiative promotes knowledge sharing, critical thinking, and interdisciplinary collaboration.



[Public Access to Libraries](#) on AASTMT webpage

**Digital Access and Open Knowledge: AASTMT Open Access Institutional Repository:** The repository provides unrestricted access to thousands of theses, dissertations, and research publications, supporting open science and removing barriers to information.



<http://openaccess.aast.edu/>

## Public Access to Museums

By strategically organizing the 46th and 47th International Collegiate Programming Contest (ICPC) in Luxor, the AASTMT provided thousands of international participants with free public access to museums and cultural heritage sites, fostering direct engagement with Egypt's ancient monuments and open-air exhibitions.



[Public Access to Museums](#) on AASTMT webpage

## Public Access to Green Spaces

Providing Free Public Access to Green Spaces: Hosting the 2024 UIPM Pentathlon on Open Campus Grounds.

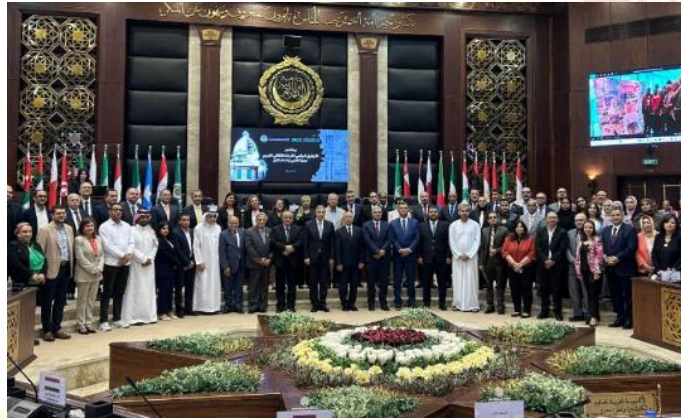


[Public Access to Green Spaces](#) on AASTMT webpage



## Permanent Free Access to All Campus Grounds:

Ensuring Permanent Free Public Access to Urban Green Spaces: The Alexandria City Center Revitalization Project.



<https://gate.ahram.org.eg/News/5303853.aspx>  
<https://www.youtube.com/watch?v=7Eijc1pTUSA>

## Occasional Free Access to All Campus Grounds:

Providing Occasional Free Public Access to Green Spaces: The Annual Ramadan Sports Tournaments on Campus Grounds



[Occasional Free Access to All Campus Grounds](#) on AASTMT webpage

**Community Engagement Program:** Free Access to Campus Green Spaces & Facilities under the "Toward a Green and Sustainable Future" Initiative (2024)



[Community Engagement Program](#) on AASTMT webpage



## Arts and Heritage Contribution

Annual Public Performances of University Theatre Groups: The 'We Are Coming Back' Theatrical Show



[Arts and Heritage Contribution](#) on AASTMT webpage

## Record and Preserve Cultural Heritage

Recording and Preserving Intangible Cultural Heritage: The 'Arab Cultural Heritage Day' Initiative



[Record and Preserve Cultural Heritage](#) on AASTMT webpage

## Sustainable Practices

### Sustainable Practices Targets

The 'Rose Carbon' and 'Aquatica' initiatives by the Enactus AAST Sheraton team directly advance SDG 11 by enhancing urban sustainability through innovative water purification, wastewater recycling, and material reuse, thereby fostering resilient and environmentally responsible cities



[Sustainable Practices Targets](#) on AASTMT webpage

Through a collaboration with Egypt's Minister of Local Development, AASTMT is advancing SDG 11 by upgrading waste, sewage, and stormwater systems and introducing an international-standard landfill, thereby building smarter, more resilient, and healthier urban environments.



[https://aast.edu/en/news/news-details.php?language=1&unit\\_id=1&news\\_id=486102957&event\\_type\\_id=1](https://aast.edu/en/news/news-details.php?language=1&unit_id=1&news_id=486102957&event_type_id=1)

### Promote Sustainable Commuting

By introducing new sustainable bus routes that connect its Al Alamein branch with key urban areas, AASTMT is promoting green commuting, reducing traffic and emissions, and enhancing resilient urban accessibility for its students.

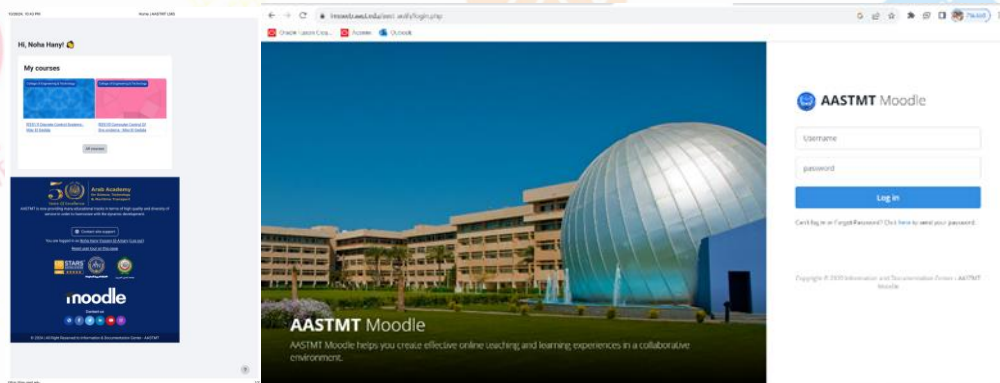




[Promote Sustainable Commuting](#) on AASTMT webpage

## Allow Remote Working

By deploying its comprehensive Moodle platform, AASTMT fosters a resilient, smart educational environment that enables collaborative remote learning, thereby reducing the need for physical commuting and promoting sustainable resource use.



[https://lmsweb.aast.edu/aast\\_auth/login.php](https://lmsweb.aast.edu/aast_auth/login.php)

Hosting online and hybrid academic events reduces travel, mitigates traffic noise, and lowers greenhouse gas emissions. It also contributes to urban sustainability by reducing the strain on public transport and urban infrastructure



[Allow Remote Working](#) on AASTMT webpage



## Affordable Housing for Students

AASTMT provides comprehensive, safe, and affordable on-campus housing across most of its campuses. By offering an alternative to the competitive private rental market, AASTMT directly combats the challenges of urbanization and potential gentrification in the surrounding city. This initiative ensures the employees have a secure living environment, fostering a vibrant and inclusive campus community as part of the sustainable urban development goals.



[https://aast.edu/en/campuses/Elalamein/contenttemp.php?page\\_id=60100009](https://aast.edu/en/campuses/Elalamein/contenttemp.php?page_id=60100009)  
[https://aast.edu/en/campuses/portsaid/contenttemp.php?page\\_id=45100013](https://aast.edu/en/campuses/portsaid/contenttemp.php?page_id=45100013)

## Pedestrian Priority on Campus

Through both permanent infrastructure like the "Smart Quad" pedestrian plaza and temporary initiatives like "Green Steps" week, AASTMT is strategically transforming its Abu Qir campus into a model of sustainable urban development that prioritizes pedestrian access, enhances safety and resilience, and reduces its environmental footprint.



<https://aast.edu/en/campuses/>  
[https://aast.edu/en/research/contenttemp.php?page\\_id=47300118](https://aast.edu/en/research/contenttemp.php?page_id=47300118)

## Local Authority Collaboration Regarding Planning and Development

Through a strategic symposium with the Ministry of Transport, AASTMT is helping to shape national policy for smart cities and intelligent transportation systems, focusing on efficient public transit to create accessible, connected, and sustainable urban environments.





[Local Authority Collaboration Regarding Planning and Development](#) on facebook page  
[Local Authority Collaboration Regarding Planning and Development](#) on AASTMT webpage

## Planning Development - New Build Standards

The AASTMT Alamein Campus is conceived as a living laboratory for sustainable urbanism, integrating state-of-the-art standards for energy, water, waste, and intelligent transportation to set a new regional benchmark for environmentally sound and socially inclusive development.



<https://aast.edu/en/campuses/Elalamein/>  
[Planning Development - New Build Standards](#) on AASTMT webpage

Through a hands-on workshop on smart home automation, AASTMT equips students with practical skills to develop energy-efficient, disaster-resilient residential technologies that support sustainable urban planning and smarter city initiatives.



[https://aast.edu/en/news/news-details.php?language=1&unit\\_id=45&news\\_id=486104264&event\\_type\\_id=1](https://aast.edu/en/news/news-details.php?language=1&unit_id=45&news_id=486104264&event_type_id=1)

## Building on Brownfield Sites

Through a professional workshop on GIS and remote sensing, AASTMT equipped municipal planners with the data-driven tools to strategically prioritize brownfield redevelopment, maximizing social, economic, and environmental benefits by leveraging existing infrastructure for scalable urban regeneration.



[Building on Brownfield Sites](#) on AASTMT webpage

[Building on Brownfield Sites](#) on facebook page

[Building on Brownfield Sites](#) on linkedin

## Upcoming Goals

Arab Academy for Science, Technology and Maritime Transport (AASTMT) is actively working towards achieving SDG 11, building upon the significant milestones of the current year. For the upcoming year, AASTMT has outlined strategic initiatives aimed at transforming its campuses and surrounding communities into models of smart, carbon-neutral, and heritage-rich urban environments.

## Future Goals and Scheduled Plans

### 1. Urban Sustainability & Smart Campus Projects:

AASTMT plans to expand its "Smart Campus" initiative, treating university grounds as living labs for urban sustainability. This includes scaling up the "Save Energy, Cut



Carbon" infrastructure by installing advanced smart meters and increasing on-campus solar capacity. Furthermore, the academy aims to digitize the "Carpooling" system into a fully integrated app to further reduce the commuter carbon footprint and traffic congestion.

## **2. Partnerships for Heritage Regeneration:**

Collaborating with local government entities and international bodies remains a key strategy, specifically through the continued execution of the TOURITAGE project. AASTMT aims to formalize new agreements with the Governorates of Alexandria and Aswan to implement urban regeneration plans that integrate adaptive reuse of heritage buildings with sustainable tourism, ensuring that cultural assets drive local economic resilience.

## **3. Research in AI for Resilient Cities:**

AASTMT is set to enhance its research efforts by focusing on Artificial Intelligence (AI) and Digital Twins in urban planning. Following the success of the ICMISI conference, future research will focus on using AI to predict climate risks in coastal cities (like Alexandria) and optimizing energy consumption in high-density urban blocks.

## **4. Capacity Building in Universal Design:**

To supports the implementation of Target 11.7 (Inclusive Public Spaces), AASTMT will offer specialized training programs focused on "Universal Design." These workshops will equip architecture students, urban planners, and facility managers with the skills to design spaces that are fully accessible to persons with disabilities and the elderly, ensuring that future urban development is truly inclusive.

## **5. "Net-Zero" Awareness Campaigns:**

AASTMT plans to evolve its awareness efforts into Behavioral Change Campaigns. Moving beyond general knowledge, the next phase of the "Save Energy" campaign will introduce gamification and inter-campus competitions to track and reward reductions in individual carbon footprints. This aims to foster a culture of active responsibility among students and staff.

By focusing on these pivots—Smart Infrastructure, Heritage revitalization, and AI-driven Resilience—AASTMT aims to make significant strides towards achieving SDG 11 in the coming year, fostering urban environments that are not only technological and modern but also deeply rooted in cultural identity and social inclusivity.