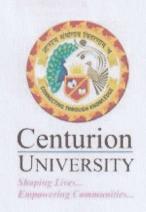


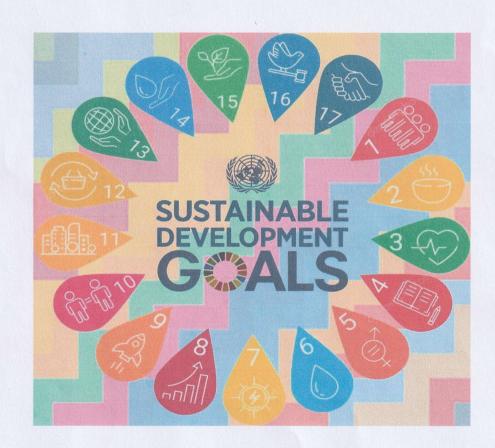
### **CERTIFIED COPY**

This is to certify that "Green Policy" document contains 9 Pages. The first and last pages are signed by the undersigned.



## **GREEN Policy**

## **Centurion University of Technology and Management**



Anila Palia

### **GREEN Policy**

#### **Need of Green Policy:**

The rising alarm regarding present climatic changes has questioned the sustainability issues of human race on the planet. Accordingly, the United Nations have set 17 sustainable development goals. However, the goals could be achieved only by the practice at institutional level with appropriate policy and its implementation. In particular, the universities have very important role to play because they can mould the young minds for green environment through proper educational model besides management of green campus. The success of SDG no. 13 (Climate action), 14(Life below water), and 15(Life on land) calls for the green management of the institutions and appropriate education. Thus, CUTM considers having a green policy, and its implementation through management and education, is of utmost importance.

## Centurion University of Technology and Management (CUTM) Stride towards green management of the university and education:

CUTM is committed to bring the environmental sustainability through the green policy and its implementation. The pathway to the solution for the complexity, and urgency of many environmental problems have been thoughtfully laid down by CUTM through their GREEN policy, education, implementation and management. The green policy of CUTM addresses the following agenda for Green and sustainable campus:

- 1. Green landscapes
- 2. Green transport measures
- 3. Water Management
- 4. Waste Management
- 5. Energy conservation and renewable sources
- 6. Ban on Single-use Plastic
- 7. E-waste Management

#### 1. Green Landscapes:

- (i) The university is committed to convert all un-utilized land with the green landscapes.
- (ii) To maintain the biodiversity by having trees, shrubs, herbs, hydrophytes, climbers, epiphytes, grass, gymnosperm, pteridophytes, bryophytes, mushrooms, and lichens.
- (iii) Maintaining indigenous bio-resources like medicinal plants, fresh water pearl, dairy and poultry.
- (iv) To attract the fauna through natural as well as breeding procedures.

- (v) To provide a research and practice base for skill integrated higher education for sustainable development.
- (vi) To lead to environment friendly start-ups involving local communities.

#### Implementation:

- (i) To create a water body for pisciculture, migratory bird, a water fall, associated with a garden for research on cactus, bee and butterfly. indigenous medicinal plants, and conservation of Rare, Endangered and Threatened (RET) species.
- (ii) Provide training for staff to meet the aims of the green policy and sustainable practices.
- (iii) Integrate the green measures in the higher education curriculum that eventually lead to green research and start-ups. Green audit to be done through students' projects.

#### Management:

- (i) Design mechanisms for monitoring the biodiversity.
- (ii) Actively encourage student and faculty-led monitoring projects.
- (iii) Review and update the biodiversity actions through green audit every year.

#### 2. Green transport measures:

- (i) To encourage use of either renewable sources or battery-operated vehicles with within the campus to reduce the carbon foot-print by footprint by 43% by 2027.
- (ii) To minimise the use of vehicles using conventional non-renewable energy sources within the boundaries of the campus.
- (iii) The green transport measures to form a part of higher education through research, practice and skill integration to higher education, with a view to manufacturing electrical vehicles (EVs).

#### Implementation:

- (i) Provide training to the staff for the operation and maintenance of renewable sources or battery-operated vehicles.
- (ii) Integrate the training in higher education curriculum with provisions for internal student-project.
- (iii) Plan the campus ground for appropriate parking area for vehicles using conventional non-renewable energy sources so as to reduce the carbon emission within the campus.
- (iv) Provide green pedestrian pathways from parking area to the various area of the campus for the convenience of students and people working in the campus.
- (v) Solar operated battery charging system for electrical vehicles operating inside the campus and encouraging pooling of vehicles.

#### **Management:**

(i) Design mechanisms for maintenance of renewable sources or battery-operated vehicles.

- (ii) Actively encourage student and faculty-led management and research projects.
- (iii) Review and update the green actions through environment audit every year.

#### 3. Water Management:

- (i) To recycle at least 90% of the waste waterby optimizing the
- (ii) To integrate he rain water harvesting systems with the architecture of the university buildings and green landscaping.
- (iii) The green landscape must include water bodies for biodiversity.
- (iv) To practice water management by integrating it in the higher education through research, practice, projects and skill training.
- (v) To audit the water use at periodic intervals as per regulation. In this process students be involved for optimal use of water

#### Implementation:

- (i) Maintenance of water bodies and STP.
- (ii) Provide training to the staff for the operation and maintenance of water management systems and water-auditing.
- (iii) Ensure all contractors are provided with a copy of the CUTM Design Standards which refer to the green policy.
- (iv) Integrate the water management programs in higher education curriculum with relevant training to create awareness of sustainable environment and initiate start-ups for optimal water use. Student projects on water audit to be done every year.
- (v) Satellite image processing for assessing the ground water potential and for planning its optimal exploration.

#### Management:

- (i) Design mechanisms for monitoring and maintenance of water management system.
- (ii) Actively encourage student and faculty-led management and research projects.
- (iii) Review and update the actions through environment audit every year.

#### 4. Waste Management:

- (i) The CUTM aims at 'Zero-Waste' through 'Reduce, Recycle and Reuse' approach.
- (ii) The university to remain compliant with all relevant waste legislation as per state and local statutory bodies.
- (iii) Set specific objectives and targets in relation to minimizing waste, improving recycling rates and reducing disposal to landfill.
- (iv) The awareness and practice of waste management to be integrated in the higher education through research, practice and skill training.

#### Implementation:

- (i) Provide training to the staff for the operation and maintenance of waste management systems.
- (ii) Ensure all contractors are provided with a copy of the CUTM Design Standards which refer to the green policy.

(iii) Integrate the waste management programs in higher education curriculum with relevant training to create awareness of sustainable environment and create start-ups for 'waste-to-wealth' enterprises.

#### Management:

- (i) Design mechanisms for monitoring and maintenance of waste management system.
- (ii) Actively encourage student and faculty-led management and research projects.
- (iii) Review and update the actions through environment audit every year.

### 5. Energy conservation and renewable sources:

- (i) Reduce the university's carbon footprint by 43% by 2027.
- (ii) Use of renewable energy sources like solar energy.
- (iii) Set targets for reducing energy consumption through proper energy conservation measures.
- (iv) Energy generation through waste management.
- (v) Integration of awareness and practice of energy conservation and renewable energy in the higher education through research, practice and skill training.

#### Implementation:

- (i) Provide training to the staff for the operation and maintenance of installed renewable and non-renewable energy systems.
- (ii) Ensure all contractors are provided with a copy of the CUTM Design Standards which refer to the green policy.
- (iii) Maintain awareness of emerging low carbon/alternative technologies and explore potential for implementation through students' projects including the area of energy audit and use of renewable energy.
- (iv) Integrate the energy conservation, renewable energy and energy generation from waste programs in higher education curriculum with relevant training to create awareness of sustainable environment and economy.

#### **Management:**

- (i) Design mechanisms for monitoring, maintenance and conservation of renewable and non-renewable energy sources.
- (ii) Actively encourage student and faculty-led management and research projects.
- (iii) Facilitate collaboration with research and commercial innovation organizations in relation to energy efficiency projects.
- (iv) Review and update the actions through energy audit every year.

#### 6. Ban on Single-use Plastic:

- (i) To abide by the Plastic Waste Management (PWM) Rules of India for efficient management of plastic waste.
- (ii) Prohibition of single-use plastic inside the campus for eco-friendly campus.
- (iii) Encourage the use of paper bags and cloth bags.
- (iv) Set specific objectives and targets in relation to minimizing plastic waste, improving plastic recycling rates and reducing disposal to landfill.
- (v) The awareness and practice of plastic waste management to be integrated in

the higher education through research, practice and skill training. Implementation:

- (i) Ensure that all commercial entities inside the campus strictly abide by the rule of ban on plastic.
- (ii) Provide training to the staff for the operation and maintenance of plastic waste management systems and rules.
- (iii) Integrate the waste management programs in higher education curriculum with relevant training to create awareness of sustainable environment.
- (iv) Student projects and start-ups using waste plastics.

Management:

- (i) Design mechanisms for monitoring of plastic waste management system and rules.
- (ii) Actively encourage student and faculty-led management and research projects.
- (iii) Encourage and support to student led awareness activities with local community.
- (iv) Review and update the actions through environment audit every year involving students as much as possible..

#### 7. E-waste Management:

- (i) Being an ICT enabled University, CUTM is prone to generate E-waste.
- (ii) The university to remain compliant with all relevant E-waste legislation.
- (iii) Set specific objectives and targets in relation to minimizing waste, improving recycling rates.
- (iv) The awareness and practice of E-waste management to be integrated in the higher education through research, practice and skill training.

#### Implementation:

- (i) Provide training to the staff for the operation and maintenance of E-waste management systems.
- (ii) Ensure all contractors are provided with a copy of the CUTM Design Standards which refer to the green policy.
- (iii) E-waste disposal to be done through authorized agencies only.
- (iv) Integrate the E-waste management programs in the curriculum with relevant training to create awareness of sustainable environment and create start-ups for optimal use of E-spares.

#### Management:

- (i) Design mechanisms for monitoring and maintenance of E-waste management system.
- (ii) Actively encourage student and faculty-led management and research projects on E-waste.
- (iii) Review and update the actions through E-waste audit every year.

With the implementation of these policies with rigorous practice, we aim at achieving the Green campus initiative by 2027.



# **Implementation of Green Policy**

Anila Palea

Policy	Achievements
1. Green landscapes	The barren lands in all the campuses have been almost converted to green, with suitable domestication of plants and animals.  A garden for research on cactus, bee and butterfly, indigenous medicinal plants, and conservation of Rare, Endangered and Threatened (RET) species.  Natural water bodies maintained and suitable water bodies created for pisciculture, wetland birds and water fall.  These are suitably integrated in the syllabus.
1. Green transport measures	The green transport measures with an intensive use of inhouse manufactured electrical vehicles (EVs). Solar operated battery charging system for electrical vehicles operating inside the campus and encouraging pooling of vehicles. Appropriate parking area at the campus entrance for vehicles using conventional non-renewable energy sources so as to reduce the carbon emission within the campus.  Provide green pedestrian pathways from parking area to the various area of the campus for the convenience of students and people working in the campus.  These practices are suitably included in the curriculum.
2. Water Management	Waste water recycling is done through an efficient STP. Staff and students are trained for maintenance of water management systems and water-auditing. Satellite image processing for assessing the ground water potential and for planning its optimal exploration is done. Integrated the water management programs in higher education curriculum with relevant training to create awareness of sustainable environment and initiate start-ups for optimal water use. Student projects on water audit are done.
4. Waste Management	CUTM is implementing 'Zero-Waste' policy through 'Reduce, Recycle and Reuse' approach. Local civic bodies are partnering in this process.  CUTM Design Standards implemented to convert food waste to organic manure used internally in the campus premises.  The awareness and practice of waste management is integrated in syllabus.  Provided training to the staff and students for the operation and maintenance of waste management systems. It has created startups for 'waste-to-wealth' enterprises in the area of hand-made paper, clay modelling, terracotta, Likhaan – ball pens, pavement blocks etc.
5. Energy	Installed 500KW grid connected solar power plant apart from

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conservation and	isolated solar panels of about 50KW. Provided training to the staff
renewable	for the operation and maintenance these systems.
sources	Maintained awareness of emerging low carbon/alternative
Sources	technologies and explored potential for implementation through
	students' projects including the area of energy audit and use of
	renewable energy. These are also integrated to the syllabus.
6. Ban on Single-	All the campuses are made free of single-use plastic.
use Plastic	All the shop keepers, staff and students are encouraged to use
despitable into the control of the c	paper bags and cloth bags.
	Student projects and start-ups using waste plastics have started.
7. E-waste	Being an ICT enabled University, CUTM is prone to generate E-
Management	waste, which is carefully collected, stored and disposed through
	authorized agencies only.

Avila Pales