

CYPRUS UNIVERSITY OF TECHNOLOGY

ISCN-GULF CHARTER REPORT

2013







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PLANNING AND DESIGN SECTION

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Introduction

About Cyprus University of Technology

Cyprus University of Technology (CUT) is one of three state universities in the Republic of Cyprus. It was founded in Lemesos (Limassol) by law in December 2003 and welcomed its first students in September 2007. CUT aspires to develop into a modern, pioneer and internationally recognized university, able to offer education and high level research in leading fields of research that currently have a great impact on the economic, technological and scientific sectors. Focusing mainly on applied research, the University aspires to acquire a role in support of the State and society in their efforts to deal with problems related to science and technology. The University mission has been developed around the following priorities:

- To offer education to students of a high scientific, technological and professional level.
- To produce high quality research that will transcend the traditional boundaries between basic and applied research, so that solutions may be offered to major problems of society and the economy. Simultaneously, to allow Cyprus to attain an important position as a partner in a modem, European setting and to secure significant external research funding.
- To promote University cooperation with local industry and the economic sector in order to participate in the national effort to innovate and constantly improve products and services.
- To develop relationship and cooperation with its social partners and contribute to society, social cohesion, culture, local development and the economy.

Cyprus

It is the third largest island in the Mediterranean Sea, with an area of 9.251 sq.kms. Cyprus became an independent country in 1960 and joined the European Union in 2004. On 20 July 1974 Turkey invaded the Republic of Cyprus with a massive military force in violation of the UN Charter and fundamental principles of international law. Turkey occupied 36,2% of the sovereign territory of the Republic of Cyprus. Since then, negotiations for the solution of the Cyprus problem are taking place under the auspices of the United Nations.





Lemesos

The island's second largest city, Lemesos spreads out between two ancient city-kingdoms, Amathous to the east and Kourion to the west, two of the most spectacular archaeological sites in Cyprus. It is the island's main port, the centre of the wine industry and a bustling holiday resort. A large number of hotels and hotel apartments line a 15km coastline interspersed with eucalyptus groves and linked by a promenade popular with walkers or joggers. Someone may wander round the narrow streets of the old town radiating out from the fishing harbour. The city medieval castle was the site of the royal wedding in the Middle Ages between Richard the Lionheart and Berengaria of Navarre, and now houses the Cyprus Medieval Museum. The surrounding countryside full of vineyards and quaint it's characterized traditionally wine producing villages.

University Facts and Figures

- Students: 2194
- Undergraduate: 1975
- Postgraduate: 118
- Doctoral: 101
- International Students: 88 undergraduate students, 24 postgraduate students
- Academic staff: 295
- Administrative staff: 226
- Teaching and research staff: 158
- Annual Budget: €55 million
- Budget Allocated for Research: €1.8 million

University Campus

The University has six faculties, which are located in the city centre of Lemesos (Limassol). The University expansion is divided into three phases, the first covering the period 2007-2013 where the University buildings are located within the old city centre. Old government buildings given to the University have been renovated, other buildings in the vicinity have been rented and several other have been remodified in order to accommodate the needs in laboratories, lecture rooms as well as offices. During the second phase (2014-2020) the University campus is expected to expand in an area of approximately 50.000sqm, about





seven minutes walking distance from the old city centre. The University Campus Master Plan envisages that until 2020 the number of students will steadily grow to 7000-8000, with 21-28 departments.

Sustainability

Cyprus University of Technology's mission is to become a center of excellence in University education and research while contributing significantly to the economic and technological development of the community. Integral part of the above mission is the development of environmental awareness and responsibility to become a pioneer "Green" University incorporating Environmental Policy rules at any function. The primary policy of the CUT at its first stage of development is concerned with Sustainable Development which can be translated into the restoration of old historic buildings in the town center of Lemesos to be reused by the University.

The Environmental Policy Office, which is under the Estate Management Service and a vital office of the Planning and Design Section of the University, aims to integrate environmental policy into every function of the Cyprus University of Technology and cultivate an environmental consciousness to the University Community. It uses a powerful promotion and consolidation of the Environmental Policy and Office using the branding name 'green@cut':

green@cut has the following responsibilities inside the University:

- Is responsible for managing the University's Environmental Policy.
- Is the promoter of environmental consciousness.
- Ensures compliance with relevant legislation.
- Drafts strategic planning development and implementation of environmental policy.
- Reports on optimization measures for energy efficiency of buildings.
- Reports on energy saving.
- Reports and maintaining all the collaborations.
- Manages Hazardous Waste.
- Manages Recycle System for products and equipment.
- Prepares of environmental friendly technical specifications for materials/equipment.
- Collects and analysis of relevant environmental statistics data.





- Continuously updates personnel on environmental issues.
- Promotes of environmental culture.

green@cut is a member of the:

- International Sustainable Campus Network (ISCN).
- U.S. Green Building Council LEED.

And also is in collaboration with the:

- Committee on Environmental Assessment Reports of the Environment Department of the Ministry of Agriculture, Natural Recourses and Environment.
- Department of Civil Engineering and Geomatics of the University on different Research Programs.
- University of Cordoba on Sustainability issues.
- Energy Service of the Ministry of Commerce, Industry and Tourism for Energy Saving Promotion and Renewable Energy Use.

On this report

This Charter Report is the first for the Cyprus University of Technology. This report gives a wide overview of the University's commitment to sustainability. Later this year, using this report as a baseline, the Environmental Policy Office will issue another detailed report. That report will be CUT's official Sustainability Report and will include all the goals and objectives on the forthcoming years. An overview of all the actions that were made the past few years will be included also.

On this report and for now on, all the data will be compared to the 2010 data. All key initiatives are for the year 2013 and on. Unless otherwise noted, the reporting period of performance data is for CUT's financial year 2011-2012.

For any questions on this report, please contact: Andreas Dionyssiou Energy Management Engineer, green@cut andreas.dionyssiou@cut.ac.cy





Principle 1 – Sustainability Performance of Buildings on Campus

Principle 1: To demonstrate respect for nature and society, sustainability considerations should be an integral part of planning, construction, renovation, and operation of buildings on campus.

A sustainable campus infrastructure is governed by respect for natural resources and social responsibility, and embraces the principle of a low carbon economy. Concrete goals embodied in individual buildings can include minimizing environmental impacts (such as energy and water consumption or waste), furthering equal access (such as nondiscrimination of the disabled), and optimizing the integration of the built and natural environments. To ensure buildings on campus can meet these goals in the long term, and in a flexible manner, useful processes include participatory planning (integrating end-users such as faculty, staff, and students) and life-cycle costing (taking into account future cost-savings from sustainable construction).

Management Approach to Principle 1 Topics

Roughly from the commencement of the Cyprus University of Technology, sustainability considerations were an integral part of planning, construction, renovation and operation of University buildings.

The primary policy of the CUT at its first stage of development is concerned with Sustainable Development which can be translated into the restoration of old historic buildings in the town center of Lemesos to be reused by the University. Currently, the University is located at the city center operating in renovated buildings. This strategy favored the expansion of the long disintegrated historic city center. All the old buildings were renovated using all the energy efficiency considerations where applicable. Later on, on the second phase of expansion, the University Campus will be designed on the basis of Sustainable Development guidelines and zero energy consumption buildings.





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Overview of Organization's Principle1 Goals

Topics	Goals and Initiatives		Results	
Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year, and/or beyond)	Key Initiatives (in reporting year, and /or planned for the following and beyond)	Performance 2011	Performance 2012
		Resource use		
Electricity Consumption (KWh)	10-15% Energy Saving until 2014 from 2012	 Promotion and Implementation of Practical Energy Saving Methods: <i>methods were implemented under pilot</i> scheme in one University Building and had a result of 13% energy saving 	Electricity Consumption: 3292525 KWh University Area: 47303 sqm	Electricity Consumption: 3514368 KWh University Area: 49783 sqm
Fuel Consumption	10-15% Fuel Consumption until 2014 from 2012	More Efficient University car use:More Efficient driving routeMinimum 2 people on board	Fuel Consumption: 9420 litres Number of cars: 9	Fuel Consumption: 12459 litres Number of cars: 9
	v	Vaste, recycling, local emissions, and n	on-compliance	
Solid Waste and Recycling	Reduction of waste to landfill through recycling	 Increase Recycling Program and Minimize Waste: Encourage methods to reuse and purchase items that can be reused Promote recycling benefits through campaigns, meetings and student support Compost 	Recycle of: Paper Plastic, Metal, Drink Cartons Batteries	 Recycle of: Glass Increased recycling spots Increased recycling items/program (Clothes) Paper recycle bins for every workstation Tonners recycling
e-waste	Recycle of electronic and electric appliances	 Launch of e-waste program: Sustainable reuse Donation of non use items Low price selling of non use items Safe disposal under licensed recycling companies 	N/A	Recycle of: • Flourocent lamps • PC's, printers etc • Phones
Pollution from cleaning products	Minimize the use of cleaning products that are harmful to health and ecosystems	Purchase items using only the Green Public Procurement specifications	Where applicable, Purchases under GPP	Where applicable, Purchases under GPP
Hazardous		Government legislation. All hazardous	All research laboratories	All research

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waste	Safe removal and disposal of hazardous chemical and biological contaminant wastes (research laboratories)	waste producers have to be in collaboration with a licensed waste removal company so all waste to be collected	hazardous waste were collected	laboratorieshazardous wastewere collectedAll sanitary napkinswere collected
		Research/IT facilities and sustain	nability	
Handicap Accessibility	Handicap Accessibility in all buildings	Government legislation is strict to new or renovated public buildings for implementing handicap accessibility	Implemented to all renovated and new buildings	Implemented to all renovated and new buildings
PC Power Savings	All PCs should be turned off at the end of the working day	10-15% Energy Saving until 2014 from 2012	N/A	N/A
IT Facilities	Programs or actions that focus on sustainability	Launch of the e-University program	Start of the e-University program	Continuation of the e- University program
		Users		
Environmental Consciousness	Promote Environmental Consciousness for Energy Consumption and Recycling	10-15% Energy Saving until 2014 from 2012 and Reduction of waste to landfill through recycling	Recycling Campaign program launch • Posters • Emails	Energy Saving Campaign program launch • Department/Service Visit Campaigns for personalized approach to all the users in the buildings
Inclusivity	Increase % of users that give direct support to green@cut	 Users will be the direct correspondent of green@cut to all buildings so the environmental policy will be easier implemented One representative with more responsibilities to each building will be available 	N/A	One representative to each building is available
Environmental Policy	Users should be familiar with the Environmental Policy of the University	 Promote the Approved Environmental Policy from the University's Highest be aware of the top management commitment: Department/Services Visit Campaigns for more personalized approach to all the users in the buildings 	N/A	Campaigns via emails
Energy Saving	Energy Saving goals using healthy competition between building users	 Energy consumption should be published every six months Regular meetings with University staff for Everyday Practical Methods of Energy Saving and recycling purpose 2nd visit round September 2013 	N/A	Visited all University Services and Departments

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	Building design aspects					
Green Building Practices	Achievement of energy saving standards and energy consumption categorization to all University buildings until 2016	Based on Government's legislation for categorizing buildings by their energy consumption, an official report should be placed in all public buildings illustrating their energy category and consumption	N/A	In process		
Landscape Integration	Integration of landscape with building design on all new developments at the Campus Master Plan	Building Design and Development under the environment's characteristics and sustainability principles	Common Teaching Facilities Andreas Themistocleous gardens with indigenous plants draught tolerant	 Design of Tsakkistos Building green roof Language Center Green Roof 		
Sustainable Development Guidelines	Develop Sustainable Building Guidelines for new buildings and major refurbishments by 2016	Sustainable Guidelines to be used for future projects	N/A	N/A		
Construction waste	Recycle of all possible construction waste	 Based on Government's legislation, concrete, steel, wood and glass should be recycled: Licensed companies will pick up the waste which they will be responsible for recycling 	Applied as legislation	Introduced in 2011		
Green Roofs	Green roof Implementation where applicable	Reduce Energy Consumption and make city center greener	N/A	 Design of Tsakkistos Building green roof Language Center Green Roof 		
Old Buildings Renovation	Renovation of Old Historic or old city center buildings	 Sustainability is based on renovation and reuse: Between 2012 and 2014, two more old renovated buildings will be delivered for University use 	 Delivered Buildings: Rector House Mechanical Engineering and Materials Science and Engineering Laboratory Library Offices 	 Delivered Buildings: Faculty of Management and Economics Building Department of Civil Engineering and Geomatics Laboratory 		





Principle 2 – Campus wide Master Planning and Target Setting

Principle 2: To ensure long-term sustainable campus development, campus-wide master planning and target-setting should include environmental and social goals.

Sustainable campus development needs to rely on forward-looking planning processes that consider the campus as a whole, and not just individual buildings. These processes can include comprehensive master planning with goals for impact management (for example, limiting use of land and other natural resources and protecting ecosystems), responsible operation (for example encouraging environmentally compatible transport modes and efficiently managing urban flows), and social integration (ensuring user diversity, creating indoor and outdoor spaces for social exchange and shared learning, and supporting ease of access to commerce and services). Such integrated planning can profit from including users and neighbors, and can be strengthened by organization-wide target setting (for example greenhouse gas emission goals). Existing low-carbon lifestyles and practices within individual campuses that foster sustainability, such as easy access for pedestrians, grey water recycling and low levels of resource use and waste generation, need to be identified, expanded and disseminated widely.

Management Approach to Principle 2 Topics

Currently at the first phase of expansion, CUT is located only in the Lemesos city center. Its facilities are spread all over the city some of which are placed in old renovated buildings.

At the second phase of expansion a Campus will be created near the city center. The Campus will be designed under Sustainable Development Principles and it will blend with its surroundings. All of its buildings will aim to achieve zero energy consumption and zero Green House Gas Emissions. It will be a pedestrian friendly campus connecting all University services and city center buildings. Handicap accessibility will be available to all places. All waste will be recycled and also energy production will be taken from waste elaboration. Cyprus University of Technology aspires to be the role model of Sustainable Development in Lemesos and the rest of Cyprus.





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Overview of Organization's Principle 2 Goals

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Topics	Objectives and	Goals and Initiatives	Resu	Its
Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year, and/or beyond)	Key Initiatives (in reporting year, and /or planned for the following and beyond)	Performance 2011	Performance 2012
	Ins	titution-wide carbon targets and related a	achievements	
GHG reduction	Reduce Green House Gas Emissions by 10- 15% from 2012 to 2014	 Reduction of GHG is relevant to the 10-15% Energy Reduction since the production of Electricity in Cyprus is from Mazut Oil: Reduction of GHG will be accomplished from Energy reduction 	Electricity Consumption: 3292525 KWh University Area: 47303 sqm	Electricity Consumption: 3514368 KWh University Area: 49783 sqm
	L	Master Planning		
Campus Master Plan	Sustainable Master Plan Design	Sustainable Master Plan Design will be based on • zero Energy Buildings • blend with its surroundings • environmentally and socially conscious	N/A	N/A
Pedestrian campus	Increase the % of pedestrian environment	Number of streets between University buildings will be transformed to pedestrian ones by the Municipality: • Pedestrian works are in progress	N/A	Some pedestrian works finished
		Transportation		
Car-pooling (2 persons minimum)	Increase the number of people inside the car which arrive to the University	Increase number of car-pooling participants from 2013: • Promotion of car-pooling • green@cut will help he communication between car poolers	Shuttle Bus travelling around campus	Shuttle Bus travelling around campus
Bike rental scheme	Promote cycling by provision of rented bikes from the Student Life Office	Agreement with local Rental Bike Company for student discount • Increase the rented bikes location at the University	N/A	Bikes are available to different University locations
Food				
Local Food	Local Food support	 Almost all food at the University Restaurant comes from local suppliers The University has an agreement with a local food supplier to support the University restaurant and cantines 	N/A	Local food supplier



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Social Inclusion and protection				
Access to services	Easy access to all University community	All University services which provide support to the University community are located at key positions at the city center where the University is located	Most services are within walking distance	Most services are within walking distance
Disability Access and inclusion Action Plan	Develop an environment of appropriate access and support	Disability access to all renovated and new construction buildings	Implemented to all renovated and new buildings	Implemented to all renovated and new buildings
Health and Safety	Promote the importance of Health and Safety to the University community	 Health and Safety Implementation to all University procedures OHSAS 18001 is currently being implemented at the University 	Health and Safety department started its procedures	OHSAS documentations begin
Participative campus and neighborhood planning	Continue/foster dialogue with neighborhood community	Number of community issues are solved easier with sustainable community collaborations	Close and Immediate Collaboration with Lemesos Municipality and other local organizations	Close and Immediate Collaboration with Lemesos Municipality and other local organizations
		Land-use and biodiversity		
Landscape master plan	Green landscape at University Master Plan	Develop a landscape master plan that acknowledges the indigenous heritage of the campus through plantings and preserving green space	In process through Campus Master Plan	In process through Campus Master Plan
Renovations	Re-use of existing buildings	 The University started its operations in renovated old historic building and old buildings in the city: <i>Currently three similar projects are under development</i> 	 Delivered Buildings: Rector House Mechanical Engineering and Materials Science and Engineering Laboratory Library Offices Laboratories in Stoa Lanitis 	 Delivered Buildings: Faculty of Management and Economics Building Department of Civil Engineering and Geomatics Laboratory Computer Labs in Stoa Lanitis Nursing Department Building Studying and Students Affair Building





Principle 3 – Integration of Facilities, Research, and Education

Principle 3: To align the organization's core mission with sustainable development, facilities, research, and education should be linked to create a "living laboratory" for sustainability.

On a sustainable campus, the built environment, operational systems, research, scholarship, and education are linked as a "living laboratory" for sustainability. Users (such as students, faculty, and staff) have access to research, teaching, and learning opportunities on connections between environmental, social, and economic issues. Campus sustainability programs have concrete goals and can bring together campus residents with external partners, such as industry, government, or organized civil society. Beyond exploring a sustainable future in general, such programs can address issues pertinent to research and higher education (such as environmental impacts of research facilities, participatory teaching, or research that transcends disciplines). Institutional commitments (such as a sustainability policy) and dedicated resources (such as a person or team in the administration focused on this task) contribute to success

Management Approach to Principle 3 Topics

Cyprus University of Technology considers that its role to the society is beyond the higher education offered to its students. The University aspires to acquire a role in support of the State and society in their efforts to deal with problems related to science and technology. As stated before the University mission has been developed around the following priorities:

- To offer education to students of a high scientific, technological and professional level.
- To produce high quality research that will transcend the traditional boundaries between basic and applied research, so that solutions may be offered to major problems of society and the economy. Simultaneously, to allow Cyprus to attain an important position as a partner in a modem, European setting and to secure significant external research funding.
- To promote University cooperation with local industry and the economic sector in order to participate in the national effort to innovate and constantly improve products and services.





• To develop relationship and cooperation with its social partners and contribute to society, social cohesion, culture, local development and the economy.

An integral part of all of the above is the promotion and support of Sustainable development. Number of University subjects and research programs are focused on various environmental and sustainable themes.

The Faculty of Geotechnical Sciences and Environmental Management, includes the Department of Agricultural Sciences, Biotechnology and Food Science and the Department of Environmental Science and Technology. The first department has a number of syllabuses themed on environmental management. All the subjects and research programs of the second department are focused on sustainability, environment and environmental policy.

The Faculty of Engineering, which includes the Department of Electrical Engineering, Computer Engineering and Informatics, Department of Mechanical Engineering and Materials Science and Engineering and the Department of Civil Engineering and Geomatics, offers a great number on environmentally focused syllabuses while participating in a lot of sustainable driven research programs.

The Faculty of Health Sciences is also taking part on a variety of research programs focusing on environmental issues on public health.

green@cut, which is the Environmental Policy Office of the University, is focusing on building an environmentally conscious culture at Cyprus University of Technology. It is the link of the approved Environmental Policy to the Academic and Administrative Personnel and Students which was approved from by the highest University Committee on 2011 (.





Overview of Organization's Principle 3 Goals:

Topics	Goals and Initiatives		Results	
Priority topics (with units of measurement)	Objectives and targets (for reporting year, for the following year, and/or beyond)	Key Initiatives (in reporting year, and /or planned for the following and beyond)	Performance 2011	Performance 2012
		Topical Integration		
Sustainability courses and programs	Increase the number and quality of sustainability related courses	Sustainable living and thinking	Number of courses are available at the Faculty of Geotechnical Sciences and Environmental Management, Faculty of Engineering and Faculty of Health Sciences	Number of courses are available at the Faculty of Geotechnical Sciences and Environmental Management, Faculty of Engineering and Faculty of Health Sciences
Sustainability Development in research	Enhance academic leadership and interdisciplinary engagement around societal and environmental challenges	Sustainable Development based projects	Number of research programs are available at the Faculty of Geotechnical Sciences and Environmental Management, Faculty of Engineering and Faculty of Health Sciences	Number of research programs are available at the Faculty of Geotechnical Sciences and Environmental Management, Faculty of Engineering and Faculty of Health Sciences
		Social Internation		
Collaboration with other campuses	Sharing of knowledge and experience in campus sustainability with other Mediterranean Universities	 Social Integration Establish the collaboration with the University of Cordoba, Spain Initiation the MUSUn (Mediterranean Universities for Sustainability) Network within 2013 	N/A	Started first collaboration with the University of Cordoba, Spain
Engaging with civil society	Participation in European and International Conferences for Sustainability	N/A	 Participate at the EIPA (European Institute of Public Administration) ' A new Energy Policy for Europe' Participation at the ISCN annual Conference in 	Member of the International Sustainable Campus Network (ISCN)

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			Gothenburg Sweden, June 2011	
EnvironDay	To showcase the University's environmental initiatives to students	During Induction Week, a small presentation to students will take place informing about the Environmental initiatives that implemented at the University • <i>First year of implementation will be 2013</i>	N/A	N/A
Job opportunities related to sustainability	Presentations from the University's Career Office for environmental related job opportunities	Every year more environmental job presentation must take place • More than 2 presentations in 2013	N/A	 Two presentations occured Green Job Opportunities Natural Gas Industry Job Opportunities
	Posoarch &	Education projects on Laboratory/IT faci	ilitios and sustainability	
			Solar Cooling/Heating and Geothermal Energy	Projects focusing on the
Living Laboratory	Maximize the use of the campus as a 'living laboratory' for student research projects	Projects focusing on the Solar Cooling/Heating and Geothermal Energy Technology installed at the building for optimization purposes	(Renewable Energy Source) installed at Mechanical Engineers and Material Science and Engineer Laboratory	Solar Cooling/Heating and Geothermal Energy Technology installed at the building for optimization purposes
	Co	ommitments and resources for campus s	sustainability	
Human Resources	Provide the resources to coordinate and drive campus sustainability	Attendance software Started in 2013	N/A	N/A
ISCN-GULF Charter Report	Submission of reports to ISCN in 2013	Report Submitted	Not a member yet	Not a member yet
Green Funding	To provide funding opportunities for innovative sustainability projects with an acceptable return on investment	Geothermal Energy (Renewable Energy Source) at new Library Building (Municipal Library)	Solar Cooling/Heating and Geothermal Energy (Renewable Energy Source) installed at Mechanical Engineers and Material Science and Engineer Laboratory	N/A