Energy Conservation Program

Energy consumption may be considered as the most demanding sustainability challenge. The issue of energy consumption is further compounded as a result of the fact that October 6 university campus is in a desert climate that places high demand on air-conditioning.

**O6U energy saving measures inside the buildings and offices**

- Usage of transparent ceilings and wide glass windows to allow sun lights to prevail.
- Adopting energy effective behaviors of the stuff.
- Performing periodic maintenance for all devices and reporting about equipment that is idle, broken or much energy consuming.
- Switch off unused equipment.
- Switch off unnecessary lighting.
- Each office contains an air conditioning sensor that can switch it off at specific temperatures after adjusted time.
- The devices such as refrigerators, LCD screens, laptops, and printer’s allover the university are energy savers.
- Solar cells are placed in many places but limited usage as a prototype that can illuminate these offices.
- Glass windows allover the library permits self-lighting.
- Electric gulf cars for transport inside the campus
- Energy efficient shellers for the condition system
- Rechargeable robot for buildings sanitization.

**Examples:** -
1) windmills in campus
2) Solar Panel to supply power to the university’s Pillar
3) Solar water heater

4) Solar Panel in campus
Energy efficient appliances usage
Fig. 1. October 6 university library glass windows permitting self-lighting for most of the university.
Fig. 2. The library facilities & computer labs
Fig. 3. Example of Energy Efficient Appliances Usage: Use of neon white lighting, LCD screens, printers with efficient energy usage, and air conditioning automatic controller.
Fig. 4. Glass windows and ceilings to allow sun lights to prevail for efficient lights usage.
Fig. 5. Chillers for the buildings cooling system
Periodic maintenance

Switch off unnecessary lighting

Fig. 6. Energy efficient usage
Fig. 7. Smart screen for announcements

Methane gas production from wastewater

عمل فصل للمياة الرمادية عن المياة السوداء داخل منشئات الجامعة والاستفادة :-
1- المياة الرمادية في رئ الحدائق.
2- انتاج غاز الميثان من المعالجة الاهوائية للمياة السوداء لاتخاذ طاقة للاستخدام في الطبخ.
3- الاستفادة من المياة الناتجة بعد معالجة المياة السوداء في الري وتسميد المسطحات الخضراء.
Fig. 8 Production of biodesil and waste treatment for production of methane gas to be used for cooking in students hotel.
Fig. 9. Central air condition and fans
Fig. 10. Replacement of old lamps by energy saving lamps.

Fig. 11. A robot for sanitization
Fig. 12. Energy efficient devices as refrigerator & computers & printers
Fig. 13. The electric golf cars transporting on O6U Campus