

## **New Energy Lab**



Fuel Cell System, Power Electronics, Energy Management

| Institute:         | Public Authority for Applied | Education |  |
|--------------------|------------------------------|-----------|--|
| & Training (PAAET) |                              |           |  |
| Website:           | http://www.paaet.edu.kw      |           |  |
| Location:          | Kuwait City, Kuwait          |           |  |

- » A fully integrated autonomous energy system
- » For studying the interrelations of energy management
- » Used as public demonstrator for the increasing awareness for renewable energies



## **New Energy Lab**





Wind Turbine

Photovoltaic Installation



Training Center in Kuwait City

## System:

- » Solar, wind and fuel cell power combined with modern energy storage technology
- » Central monitoring and control software
- » Online-Visualization of measuring data via a PC

| Technical Data     |            |  |  |
|--------------------|------------|--|--|
| Solar              | 400 Wp     |  |  |
| Wind               | 400 Wp     |  |  |
| Fuel cell          | 1.2 kW     |  |  |
| Hydrogen generator | 60 slph    |  |  |
| Hydrogen storage   | 3 x 760 sl |  |  |
| Battery            | 2 x 55 Ah  |  |  |
| Electronic load    | 1.5 kW     |  |  |
| Measurements       | 45         |  |  |