Meteorology M.Sc. Summer Project, 2010.

UCD Automatic Weather Station

Supervisor: TBD

The UCD Meteorology & Climate Centre has acquired AWS equipment. The goal of this project is to make use of the data from the AWS at the Rosemount site.

The equipment includes a sonic anemometer, capable of measuring the three Cartesian components of the wind.

The student should:

- **Familiarize himself/herself with the equipment that has been purchased and installed**
- **Study the relevant documentation to establish the method and sequence of implementing the range of sensors.**
- **Learn the fundamentals of the programming language, CRBasic, that is used to control the system.**
- **Become familiar with the data logger (CR3000)**
- **Acquire a time series of observational data.**
- **Validate the data by comparison with Met Eireann observational data from nearby locations.**

The method and results will be presented in a report.

Possibilities for application of the AWS data.

- **Study the diurnal cycle**
- **Investigate the season/Annual cycle**
- **Investigate individual frontal passages**
- **Study particular severe/extreme weather events**
- **Local climatology (Compare with D/D, Casement, etc.)**
- **Energy budget**
- **Soil conditions: implications for growth**
- **Data logger principles**
- **Inter-comparison of sensors**
- **Data-feed to web: Latest reports. Time-series, etc.**
- **http://micronet.ou.edu/ltm**