



**Glacier Monitoring at Kedarnath, India (Himalayans)  
The source of the Mandakini River**

**Hero of the Environment installs first Campbell Scientific weather station at important Himalayan glacier.**

**Application Type:** Weather Station

**Project Area:** Kedarnath, India

**Authors:** Dr. D.P. Dobhal and Robert Herfst

**Datalogger:** CR1000

**Data Retrieval:** CF card

**Measured Parameters:** Wind speed/direction, air Temp/RH, Albedo, net radiation, rainfall, snow accumulation, and snow surface temperature

In 2007, Wadia Institute of Himalayan Geology installed its first Campbell Scientific weather station in the ablation zone of Charabari glacier. The installation is a 10 meter tower with a CR1000 data logger measuring wind speed and direction; air temp/RH; albedo; net radiation; rainfall / snow water equivalence; snow pack accumulation; and snow surface temperature. Data is collected manually using a compact flash card.

The importance of the Himalayan glaciers is that they are the water source for 100's of millions of people who rely on the glacial melt waters for their water supply. Although much work has been done on most of the world's alpine glaciers, very little data has been collected in the Himalayans. Dr. D.P. Dobhal of WADIA is working diligently to change that. Recognized as one of Time Magazines, "Heroes of the Environment for 2007", Dr. D.P. Dobhal has been doing glacial monitoring for many years on the Charabari glacier in the Indian Himalayans near Kedarnath in Uttarakhand. "Glaciers are the best indicators we have," he says. "It's where I need to be."

Melt water from the Charabari is the source for the Mandakini River which eventually feeds into the Ganga River. Until this year, his work comprised mainly of manual readings. He and his team camp near the glacier manually collecting data for 7 months of the year until the winter sets in. The addition of the Campbell weather station will provide measurements they never had before and a complete yearly record. All



equipment on the station is well-suited for the harsh climate and has been proven world-wide in similar applications.

Project handed over by Elcome Technologies Pvt. Ltd.

