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## CNR 4 NET RADIOMETER IN ARCTIC CLIMATE RESEARCH

“Arctic regions are experiencing much faster responses to climate change than the lower latitudes. Scientists are trying to better understand the mechanisms that control tundra ecosystems; for example on our project we are looking at nutrient cycling and the role that Nitrogen plays in limiting plant growth and decomposition.” writes Susan Steiner in her [blog](#) on a visit to a robotic sensor platform with our CNR 4 net radiometer among the sensors on it.

The NIMS (Networked Info Mechanical System) is a trolley with a suite of sensors that moves along cables suspended between two towers for the ITEX-AON (International Tundra Experiment - Arctic Observation Network) project. The objective is to collect data on phenology, plant growth, community composition and ecosystem properties, as part of a greater effort to study environmental change in the Arctic.

The CNR 4 net radiometer measures short wavelengths of light coming in from the Sun and being reflected back from the Earth, and long wavelengths emitted by the atmosphere and the surface. It provides real-time information about amounts of energy coming and going. Together with the other sensors the NIMS collects baseline data across the Arctic in order to better understand how things are changing.

Read the full blog of Susan Steiner [here](#).

The ecological research by Florida International University Department of Biological Sciences, in the North Slope of Alaska is also featured in our [newsletter 24](#).



*Nate Healey, Susan Steiner and Jose Luciani at the trolley site*

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[Newsletter 22 - October 2012](#)

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[Newsletter 08 - April 2009](#)

[Newsletter 09 - July 2009](#)

[Case Study AWE magazine on BSRN of the World Climate Research Programme](#)

[Net Radiometers - Brochure - Romanian](#)

[Net Radiometers - Brochure - Spanish](#)

[CNR 4 - Net Radiometer - Instruction Sheet \(EN/D/F/ES\)](#)

[CNR 4 Net Radiometer - Manual](#)

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