Associate Engineer
Focus: Design/deployment of instrumentation for atmospheric and ecosystem measurements
Biosphere 2, University of Arizona, Tucson, AZ
Start: Summer 2010

We seek a creative engineer with background in design, construction, deployment and maintenance of measurement systems for robust automated field measurements, including for measurement of natural abundance of isotopes. This position will provide self-starting individuals with opportunity to manage instrumentation projects and collaborate with research scientists using the instrumentation for research.

The work focuses on deployment and measurements within experimental biomes of the University of Arizona's Biosphere 2, the unique enclosed ecosystem facility outside of Tucson, AZ (http://www.b2science.org/). This includes using Biosphere 2 as a testbed for instrumentation to be deployed in related natural field sites. An initial project focuses on installing and developing systems to enable traceable calibrated measurements by new optical spectrometers of isotopic composition of atmospheric CH_4, CO_2 , and H_2O (this includes developing automated protocols for traceability to international standards using Isotope Ratio Mass Spectrometry). Deployment includes field sites in Abisko National Park, in northern Sweden (target spring 2011, see http://www.eebweb.arizona.edu/faculty/saleska/research.htm#isogenie), in the Catalina range near Tucson (http://www.czo.arizona.edu/), and possibly in the Amazon of Brazil (www.amazonpire.org).

Ideal candidates should have training and experience in a related branch of engineering (mechanical, civil, or electrical), such as experience with pressure and flow control systems, thermal management, electronics, and/or isotope ratio mass spectrometry (IRMS), and familiarity with software packages used in computer-aided design, data acquisition, and in data analysis. Additional background in measurement biosphere-atmosphere fluxes, is a strong plus.

The position is based at University Arizona's Biosphere 2, but involves time at field sites described above for deployment of instrumentation. Competitive salary and benefits are provided; the University of Arizona is an equal-opportunity employer.

Apply at: https://www.uacareertrack.com/ (search postings for number 44952 in the "Biosphere 2" department). Contacts: Scott Saleska (saleska@email.arizona.edu) or Travis Huxman (huxman@email.arizona.edu).