

Position Description:

Transportation Energy and Environment Researcher

Systems Assessment Section
Center for Transportation Research
Energy Systems Division
Argonne National Laboratory

The Systems Assessment Section of Argonne's Transportation Research Center has been assessing the energy and environmental effects of conventional and new vehicle technologies and transportation fuels since the 1980s. The group consists of ten professional staff with ongoing research in the following fields:

1. Life-cycle analysis of energy and environmental effects of transportation fuels including biofuels, hydrogen, unconventional petroleum fuels from oil sands, gas-to-liquids, coal-to-liquids, and other alternative fuels.
2. Life-cycle analysis of energy and environmental effects of advanced vehicle technologies such as improved internal combustion engines, hybrid electric vehicles (including plug-in hybrids), and fuel-cell vehicles.
3. Development and application of life-cycle analysis tools such as Argonne's world-class GREET (Greenhouse gases, Regulated Emissions, and Energy use in Transportation) model (for further information see <http://www.transportation.anl.gov/software/GREET/index.html>).
4. Modeling and analysis of infrastructure issues and costs associated with the production, distribution, and dispensing of new transportation fuels.

Although most of the research conducted by the Systems Assessment Group is sponsored by the U.S. Department of Energy, the group has a history of collaborating on important research issues with the States of Illinois and California, the U.S. Environmental Protection Agency, the U.S. Departments of Agriculture and Transportation, the automotive, energy and biofuel industries, various universities, and a number of governmental and non-governmental organizations in the U.S. and abroad.

The group is seeking qualified candidates to join our team of professionals on exciting, nationally-relevant research projects, to contribute to the group's expertise, and to help expand our research into emerging transportation energy and environmental issues. Initially, qualified candidates will work primarily in the area of life-cycle analysis of energy and emission effects of new transportation fuels and advanced vehicle technologies by applying and expanding the scope and capabilities of the GREET model.

Candidates are expected to have expertise in the following areas:

1. Advanced vehicle technologies and new transportation fuels
2. Life-cycle analysis of transportation fuels and familiarity with models such as GREET
3. Process engineering of fuel production and familiarity with models such as ASPEN
4. Programming in MS Excel and use of GREET
5. Computer programming languages such as C++
6. Oral and written communications and presentations

This level of expertise is typically achieved through a master degree or a PhD and/or working experience. Candidates are expected to have an educational background in mechanical engineering, chemical engineering, environmental science or a related field.

Argonne National Laboratory is an equal opportunity employer that values diversity in its work force.

For further information, contact Dr. Michael Wang at (630) 252-2819 or mqwang@anl.gov.