

## Michael Q. Wang

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### Professional Experience

- **1993-Present.** Section manager as well as vehicle and fuel systems analyst at the Center for Transportation Research in the Energy Systems Division at Argonne National Laboratory
- **1992-1993.** Assistant research engineer, Institute of Transportation Studies, University of California at Davis
- **1991-1993.** Special-term scientist appointee, Center for Transportation Research, Energy Systems Division, Argonne National Laboratory
- **1991-1992.** Postdoctoral researcher, Center for Transportation Analysis, Oak Ridge National Laboratory
- **1989-1991.** Postgraduate researcher, Department of Civil Engineering and Division of Environmental Studies, University of California at Davis
- **1982-1985.** Lecturer, Agro-Meteorology Department, China Agricultural University; Beijing, China

### Education

- PhD, Environmental Science, University of California at Davis, 1992
- MS, Environmental Science, University of California at Davis, 1989
- BS, Agricultural Meteorology, China Agricultural University; Beijing, China, 1982

### Career Highlights

- Developed Argonne's Greenhouse gases, Regulated Emissions, and Energy use in Transportation (GREET) software model for the well-to-wheels analysis of vehicle/fuel systems. Argonne team uses GREET to conduct life-cycle analyses of advanced vehicle technologies and new transportation fuels for the U.S. Department of Energy, State of Illinois, General Motors Corporation, and the U.S. Environmental Protection Agency, among many other organizations. Currently, GREET has more than 10,000 registered users worldwide.
- Provide reviews and technical advice on advanced vehicle technologies and new transportation fuels for governmental agencies, automotive companies, and energy companies in China, Europe, South Africa, Southeast Asia and Japan

## **Research Interests**

- Evaluation of energy and environmental impacts of advanced vehicle technologies and new transportation fuels
- Assessment of market potentials of new vehicle and fuel technologies
- Projection of transportation development in emerging economies such as China
- Life-cycle analysis of vehicle/fuel systems, especially biofuels

## **Professional Society Affiliations**

- Member, Alternative Transportation Fuels Committee, Transportation Research Board, National Research Council, USA (2008-present)
- Chair, Subcommittee on International Aspects of Transportation Energy and Alternative Fuels, Transportation Research Board, National Research Council, USA (2002-present)
- Member, North American Chinese Overseas Transportation Association (1998-present)
- Member, Energy Conservation Committee, Transportation Research Board, National Research Council, USA (1997-2007)
- Member, Mobile Source Committee, Air and Waste Management Association (1990-present)
- Member, Society of Automotive Engineers (1993-present)

## **Major Professional Advisorships**

- Member, board of the International Council for Clean Transportation (2007-present)
- Member of the Technical Advisory Group for project of Total Fuel Cycle Analysis of Marine Transportation, Rochester Institute of Technology, New York (2004-present)
- Technical advisor to China Automotive Technology and Research Center (2004-present)
- Critical reviewer for life-cycle analysis of gas-to-liquids, Sasol Chevron, London, U.K. (2004-2005)
- Member of the International Team, Sustainable Transportation Task Force, China Council for International Cooperation on Environment and Development (2004-2005)
- Member of the External Advisory Board, Institute for Environmental Science and Policy, University of Illinois at Chicago (2003-present)
- Board director, the Energy Foundation, San Francisco, California (2001-present)
- Member of a PhD student dissertation committee, University of Illinois at Chicago (2002-2006)
- Technical reviewer of a gas-to-liquid study, ConocoPhillips, Houston, Texas (2002-2003)

- Board director, North American Chinese Overseas Transportation Association (2000-2003)
- Reviewer of a life-cycle study of Fischer-Tropsch diesel, Sasol Technology Company, South Africa (2002)
- Reviewer of a European well-to-wheels study on vehicle/fuel systems, Fuel Cell Activities Group of the General Motors Corporation, Detroit, Michigan (2002)
- Reviewer of a gas-to-liquid study, the Shell Gas and Power, U.K. (2001)
- Reviewer of a study on energy and emission benefits of fuel ethanol in China, Environmental Resources Management, Hong Kong (2000-2001)
- Member of the Technical Advisory Committee for a project on fuel cycle analyses of vehicle/fuel systems, California Air Resources Board, Sacramento, California (1999-2001)
- Member of the Technical Review Committee for a project on life-cycle assessment of corn stover to ethanol production, National Renewable Energy Laboratory, Golden, Colorado (2000-2003)
- Member of the Peer Review Committee for a project on life cycle analysis of biomass to fuel oxygenates, California Air Resources Board, California Energy Commission, California Department of Forestry and Fire Protection, and California Department of Food and Agriculture, Sacramento, California (1998)
- Member of the Technical Advisory Committee for a study on economics and environmental impacts of alternative-fueled vehicles, Canadian Energy Research Institute; Calgary, Alberta, Canada (1996)

## **Publications & Presentations**

- 66 journal articles and book chapters
- 23 conference papers
- 30 peer-reviewed formal reports
- 35 informal reports and technical memorandums
- 123 invited technical presentations at professional conferences and to organizations