

# Short Curriculum Vita of Arjun Makhijani

## ***Education:***

Ph.D. (Engineering) University of California, Berkeley, 1972. Area of specialization: plasma physics as applied to controlled nuclear fusion. Dissertation topic: multiple mirror confinement of plasmas. Minor fields of doctoral study: statistics and physics.

M.S. (Electrical Engineering) Washington State University, Pullman, Washington, 1967. Thesis topic: electromagnetic wave propagation in the ionosphere.

Bachelor of Engineering (Electrical), University of Bombay, Bombay, India, 1965.

## ***Current Employment:***

1987-present: President and Senior Engineer, Institute for Energy and Environmental Research, Takoma Park, Maryland. (part-time in 1987).

February 3, 2004-present, Associate, SC&A, Inc., one of the principal investigators in the audit of the reconstruction of worker radiation doses under the Energy Employees Occupational Illness Compensation Program Act under contract to the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services.

## ***Other Long-term Employment***

1984-88: Associate Professor, Capitol College, Laurel, Maryland (part-time in 1988).

1983-84: Assistant Professor, Capitol College, Laurel, Maryland.

1977-79: Visiting Professor, National Institute of Bank Management, Bombay, India. Principal responsibility: evaluation of the Institute's extensive pilot rural development program.

1975-87: independent consultant (see below for details)

1972-74: Project Specialist, Ford Foundation Energy Policy Project. Responsibilities included research and writing on the technical and economic aspects of energy conservation and supply in the U.S.; analysis of Third World rural energy problems; preparation of requests for proposals; evaluation of proposals; and the management of grants made by the Project to other institutions.

1969-70: Assistant Electrical Engineer, Kaiser Engineers, Oakland California. Responsibilities included the design and checking of the electrical aspects of mineral industries such as cement plants, and plants for processing mineral ores such as lead and uranium ores. Pioneered the use of the desk-top computer at Kaiser Engineers for performing electrical design calculations.

## ***Some Accomplishments:***

- Author of *Carbon-Free and Nuclear-Free: A Roadmap for U.S. Energy Policy* (2007), the first analysis of a transition to a U.S. economy based completely on renewable energy, without any use of fossil fuels or nuclear power.

Principal author of:

- the first overall study of the energy efficiency potential of the U.S. economy (1971);
- the first global analysis of energy and agriculture in the Third World (1975);
- the first independent assessment of radioactivity emissions from a nuclear weapons plant (1989).

Co-author of:

- the first technical assessment to show that a decoupling of economic growth from energy growth over a period of decades could be accomplished in the United States (*A Time to Choose: America's Energy Future*, 1974). This report became the foundation of U.S. energy policy during the Carter administration;
- the first audit of the cost of the U.S. nuclear weapons program (*Atomic Audit*, 1998);
- the first global assessment of the health and environmental effects of nuclear weapons production (*Nuclear Wastelands*, 1995 and 2000), which was nominated for a Pulitzer Prize by MIT Press. Also the principal editor of this book.

***Professional Societies:***

Institute of Electrical and Electronics Engineers and its Power Engineering Society  
 American Physical Society (Fellow)  
 Health Physics Society  
 American Association for the Advancement of Science

***Awards:***

The John Bartlow Martin Award for Public Interest Magazine Journalism of the Medill School of Journalism, Northwestern University, 1989, with Robert Alvarez.  
 The Josephine Butler Nuclear Free Future Award, 2001.  
 Ploughshares Hero, Ploughshares Fund, 2006

***Consulting Experience, 1975-1987***

Consultant on a wide variety of issues relating to technical and economic analyses of alternative energy sources; electric utility rates and investment planning; energy conservation; analysis of energy use in agriculture; US energy policy; energy policy for the Third World; evaluations of portions of the nuclear fuel cycle.

Partial list of institutions to which I was a consultant in the 1975-87 period:

Tennessee Valley Authority  
 Lower Colorado River Authority

Federation of Rocky Mountain States  
Environmental Policy Institute  
Lawrence Berkeley Laboratory  
Food and Agriculture Organization of the United Nations  
International Labour Office of the United Nations  
United Nations Environment Programme  
United Nations Center on Transnational Corporations  
The Ford Foundation  
Economic and Social Commission for Asia and the Pacific  
United Nations Development Programme