

## An E&S Who's Who: Recipients of the Caltech Distinguished Alumni Award

We realized a while back that nowhere has the Engineering and Applied Science Division collected and published the names of all of its Distinguished Alumni. The Distinguished Alumni Award is the highest honor the Institute bestows upon an alumnus/a. It is in recognition of extraordinary achievement in business, community, and professional life, and may be acknowledging a particular achievement of noteworthy value, a series of such achievements, or a career of noteworthy accomplishment.

The award was initiated as part of Caltech's 75th Anniversary celebration in 1966. Nominations are made by a joint faculty-alumni committee and confirmed by the Board of Trustees; the awards are presented at a ceremony during Caltech's annual Alumni Seminar Day.

So, here they are. We salute each and every one. Their contributions reflect well on Caltech and the Division, and they deserve wide recognition among their fellow alumni and the larger community. Kudos!

A note on the listing: The E&S recipients are listed alphabetically by decade of first Caltech degree. The year in parentheses just after the name is the year the Distinguished Alumni Award was received. The title below the name reflects the position the person held *at the time the award was given*. (d) indicates the person has passed away.

### 1920s

**James Boyd** (d) (1966)  
President, Cooper Range Company  
BS 1927 Eec

**Richard G. Folsom** (d) (1966)  
President, Rensselaer Polytechnic  
Institute  
BS 1928 ME, MS 1929 ME, PhD  
1932 ME

**W. Morton Jacobs** (1971)  
President and Executive Officer,  
Southern California Gas Company  
BS 1928 ME

**Mark Serrurier** (d) (1981)  
Retired. Worked on the design of  
the 200 inch telescope at Mt.  
Palomar; assisted with continuing  
development and modernization of  
the "Moviola" used for film editing,  
received an "Oscar" for this work.  
BS 1926 CE

### 1930s

**Horace Babcock** (1994)  
Director Emeritus, Observatories of  
the Carnegie Institute of  
Washington  
BS 1934 CE

**Francis H. Clauser** (1966)  
Academic Vice Chancellor,  
University of California, Santa Cruz  
BS 1934 Ph, MS 1935 ME,  
PhD 1937 Ae

**Trenton R. Dames** (d) (1993)  
Co-founder, Dames and Moore  
BS 1933 CE, MS 1934 CE

**Frank W. Davis** (1968)  
President, Fort Worth Division,  
General Dynamics Corporation  
BS 1936 ME

**Louis G. Dunn** (d) (1974)  
Retired  
BS 1936 Ae, MS 1937 ME, MS 1938  
Ae, PhD 1940 Ae

**Warren E. Fenzi** (1977)  
President, Phelps Dodge  
Corporation  
BS 1937 CE

**Arthur T. Ippen** (d) (1970)  
Ford Professor of Engineering,  
Massachusetts Institute of  
Technology  
MS 1935 CE, PhD 1936 CE

**John G. McLean** (d) (1970)  
President, Continental Oil  
Company  
BS 1938 APh

**John R. McMillan** (d) (1980)  
Chairman of the Board, Reserve  
Oil and Gas Company, Los  
Angeles, California  
BS 1931 ME

**William W. Moore** (1993)  
Co-founder, Dames and Moore  
BS 1933 CE, MS 1934 CE

**Walter H. Munk** (1966)  
Associate Director, Institute of  
Geophysics and Planetary Physics,  
University of California, San Deigo  
BS 1939 APh, MS 1940 Ge

**Bernard M. Oliver** (d) (1972)  
Vice President, Hewlett-Packard  
MS 1936 EE, PhD 1940 EE

**John R. Pierce** (1966)  
Executive Director, Research  
Communications Sciences Division,  
Bell Telephone Laboratories  
BS 1933 EE, MS 1934 EE,  
PhD 1936 EE

**Louis T. Rader** (1966)  
Vice President, General Manager,  
Information Systems Division,  
General Electric Company  
MS 1935 EE, PhD 1938 EE

**L. James Rainwater** (d) (1976)  
Professor of Physics, Columbia  
University  
BS 1939 APh

**L. Eugene Root** (d) (1966)  
President, Lockheed Missiles and  
Space Company  
MS 1933 ME, MS 1934 Ae

**William R. Sears** (1988)  
Professor, Aerospace and  
Mechanical Engineering, University  
of Arizona  
PhD 1938 Ae



James J. Duderstadt



James E. Hall



Max V. Mathews



Arati Prabhakar



Charles R. Trimble



Benoit B. Mandelbrot



Robert L. Noland



Allen E. Puckett



Vernon L. Smith

**Hsue-Shen Tsien** (1979)

Chairman, Institute of Mechanics,  
National Academy of Science,  
Beijing, China  
PhD 1939 Ae

**Victor V. Veysey** (1976)

Assistant Secretary for Civil Works,  
U.S. Department of the Army  
BS 1936 CE

## 1940s

**Mihran S. Agbabian** (2000)

Fred Champion Professor Emeritus  
of Civil Engineering, University of  
Southern California  
MS 1948 CE

**William F. Ballhaus** (1978)

President, Beckman Instruments,  
Inc.  
PhD 1947 Ae

**Arthur E. Bryson, Jr.** (1991)

Pigott Professor of Engineering,  
Department of Aeronautics and  
Astronautics, Stanford University  
MS 1949 Ae, PhD 1951 Ae

**William J. Carroll** (1996)

Vice Chairman, Board of Directors,  
Montgomery Watson, Consulting  
Engineers, Inc., Pasadena, CA  
BS 1948 CE, MS 1949 CE

**Joseph V. Charyk** (1966)

President, Communications  
Satellite Corporation  
MS 1943 Ae, PhD 1946 Ae

**Earnest H. Clark, Jr.** (1981)

President/Chief Executive Officer,  
Baker Oil Tools, Inc., Baker  
International Corporation  
BS 1946 ME, MS 1947 ME

**Julian D. Cole** (d) (1971)

Professor and Chairman,  
Department of Mechanics,  
University of California, Los  
Angeles  
MS 1946 Ae, Eng 1946 Ae,  
PhD 1949 Ae

**Satish Dhawan** (1969)

Director, Indian Institute of Science  
Eng 1949 Ae, PhD 1951 Ae

**Yuan-Cheng B. Fung** (1994)

Professor of Bioengineering and  
Applied Mechanics, Emeritus,  
University of California, San Diego  
PhD 1948 Ae

**Thomas Hudspeth** (1993)

Chief Scientist, Space and  
Communications Group, Hughes  
Aircraft Company  
BS 1941 EE

**Hassan M. Ismail** (d) (1972)

President, Cairo University  
PhD 1949 CE

**Chia-Chiao Lin** (1992)

Institute Professor, Emeritus,  
Massachusetts Institute of  
Technology  
PhD 1944 Ae

**Paul B. MacCreedy, Jr.** (1978)

President, AeroVironment, Inc.  
MS 1948 Ph, PhD 1952 Ae

**Richard H. MacNeal** (1998)

Chairman and Chief Executive  
Officer, The MacNeal-Schwendler  
Corporation  
MS 1947 EE, PhD 1949 EE

**Benoit B. Mandelbrot** (1988)

IBM Fellow, T. J. Watson Research  
Center, Abraham Robinson  
Professor of Mathematical Sciences,  
Yale University  
MS 1948 Ae, Eng 1949 Ae

**Duane T. McRuer** (1983)

President and Technical Director,  
Systems Technology, Inc.,  
Hawthorne, California  
BS 1945 ME, MS 1948 ME

**Ruben F. Mettler** (1966)

President, TRW, Inc.  
BS 1944 EE, MS 1947 EE,  
PhD 1949 EE

**John W. Miles** (1997)

Professor of Applied Mechanics  
and Geophysics, University of  
California, San Diego  
BS 1942 Eng, MS 1943 Ae, MS 1943  
EE, AeE 1944 Ae, PhD 1944 Ae

**Robert L. Noland** (1989)

President and CEO, Ketema, Inc.,  
Odenton, MD  
BS 1941 ME

**Stanley C. Pace** (1987)

Chairman and Chief Executive  
Officer, General Dynamics  
Corporation  
MS 1949 Ae

**Robert J. Parks** (1992)

Deputy Director, Retired, Jet  
Propulsion Laboratory  
BS 1944 EE

**Allen E. Puckett** (1970)

Executive Vice President and  
Assistant General Manager  
Hughes Aircraft Company  
PhD 1949 Ae

**Eberhardt Rehtin** (1984)

President, Aerospace Corporation  
BS 1946 EE, PhD 1950 EE

**Harold A. Rosen** (1976)

Vice President for Engineering,  
Space and Communications Group,  
Hughes Aircraft Company  
MS 1948 EE, PhD 1951 EE

**Glenn A. Schurman** (1994)

Corporate Vice President of Oil  
Field Development and Production  
Operations, Chevron Corporation  
MS 1946 ME

**Vernon L. Smith** (1996)

Regents' Professor of Economics,  
Department of Economics,  
University of Arizona  
BS 1949 EE

**Douglas C. Strain** (1986)

Vice Chairman, Board of Directors,  
Electro Scientific Industries  
BS 1948 EE

**Kiyo Tomiyasu** (2002)  
Consulting Engineer, Lockheed  
Martin Corporation  
BS 1940 EE

**Max L. Williams, Jr.** (1995)  
Dean, Emeritus, School of  
Engineering, University of  
Pittsburgh  
MS 1947 Ae, Eng 1948 Ae,  
PhD 1950 Ae

**Thornton A. Wilson** (d) (1968)  
Executive Vice President, Boeing  
Company  
MS 1948 Ae

**Abe M. Zarem** (1969)  
Retired, Electro-Optical Systems  
MS 1940 EE, PhD 1944 EE

## 1950s

**Moshe Arens** (1980)  
President, Cybernetics, Inc.  
Savyon, Israel  
MS 1953 ME

**Frank Borman** (1966)  
Colonel, United States Air Force  
MS 1957 Ae

**Richard D. DeLauer** (d) (1985)  
President, Orion Group Ltd.  
Eng 1950 Ae, PhD 1953 Ae

**James E. Hall** (2001)  
President, Chaparral Cars  
Incorporated  
MS 1957 ME

**Steingrimur Hermannsson**  
(1986)  
Prime Minister, Iceland  
MS 1952 EE

**Anthony J. Iorillo** (1990)  
President, Space and  
Communications Group, Hughes  
Aircraft Company  
BS 1959 ME, MS 1960 Ae

**Jack L. Kerrebrock** (1997)  
Richard Cockburn Maclaurin  
Professor of Aeronautics and  
Astronautics, Massachusetts  
Institute of Technology  
PhD 1956 ME

**Max V. Mathews** (1989)  
Professor of Music (Research),  
Stanford University  
BS 1950 EE, BS 1950 ME

**H. Edwin Reinecke** (1969)  
Lieutenant Governor, California  
BS 1950 ME

**George E. Solomon** (1983)  
Vice President and General  
Manager, Electronics and Defense,  
TRW, Inc.  
MS 1950 Ae, PhD 1953 Ae

**Alvin W. Trivelpiece** (1987)  
Director of Office of Energy  
Research, U.S. Department of  
Energy  
MS 1955 EE, PhD 1958 EE

**Donald L. Turcotte** (1999)  
Professor of Geological Sciences,  
Cornell University  
BS 1954 ME, PhD 1958 Ae

## 1960s

**Robert W. Bower** (2001)  
Professor, University of California,  
Davis  
MS 1963 EE, PhD 1973 APH

**Milton M. Chang** (2002)  
Chairman of the Board, New  
Focus, Inc., Santa Clara, CA  
MS 1965 EE, PhD 1969 Eng

**Robert W. Conn** (1998)  
Dean, School of Engineering and  
Walter J. Zable Professor of  
Engineering, University of  
California, San Diego  
MS 1965 ME, PhD 1968 ES

**James J. Duderstadt** (1989)  
President, University of Michigan  
MS 1965 ES, PhD 1968 ES

**Philip Mwangi Githinji** (1993)  
Vice Chancellor, Kenyatta  
University  
MS 1961 ME, Eng 1963 ME

**Robert Merton** (1999)  
John and Natty McArthur  
University Professor  
Graduate School of Business  
Administration, Harvard University  
MS 1967 AMA

**Roddam Narasimha** (1986)  
Director, National Aeronautical  
Laboratory, Indian Institute of  
Science  
PhD 1961 Ae

**Navin C. Nigam** (1991)  
Director (President), Indian  
Institute of Technology, Delhi  
PhD 1967 CE

**Ozires Silva** (1992)  
Minister of Infrastructure, Brazil  
MS 1966 Ae

**Ivan E. Sutherland** (1985)  
Vice President, Sutherland, Sproull,  
and Associates, Inc.  
MS 1960 EE

**Charles R. Trimble** (1995)  
President and CEO, Trimble  
Navigation  
BS 1963 Eng, MS 1964 EE

## 1970s

**Yoshiaki D. Hagiwara** (2000)  
Assistant to General Manager,  
Sony Corporation, Atsugi  
Technology Center  
BS 1971 Eng, MS 1972 EE,  
PhD 1975 EE

**Henry C. Yuen** (1999)  
Chief Executive Officer  
Gemstar Development Corporation  
PhD 1973 AMa

## 1980s

**Arati Prabhakar** (1995)  
Director, U.S. National Institute of  
Standards and Technology  
MS 1980 EE, PhD 1985 APH

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[www.its.caltech.edu/~alumni](http://www.its.caltech.edu/~alumni)