

BIOGRAPHY

NAME: Felix Zandman

BORN: May 7, 1928, in Grodno, Poland
Married, Three Children

CITIZEN: France, U.S.A., and Israel

EDUCATION: High School (Poland)

Mechanical Engineering Degree
E.N.S.E.M. (University of Nancy, France)

Masters Degrees in General Physics and Applied Mechanics
(University of Nancy, France)

Doctorate, Mechanical Physics
(University of Paris, Sorbonne), 1953
Subject of Thesis: Strain Behavior of Plastics
Imposed Subject: Crystal Dislocations in Metals Due to Fatigue

POSITIONS HELD: Attaché of Research at the French National Center of Scientific Research (C.N.R.S.), France, 1950-1953

Chief of Stress Analysis Laboratory and Chief of Research Section (S.N.E.C.M.A.) (Jet Engine Factory), France, 1953-1955

Lecturer on Stress Analysis at E.N.S.A. (Engineering School of Aeronautics), Part-Time Position, France, 1954-1957

Director of Basic Research, Tatnall Measuring Systems Co., a Division of the Budd Company, U.S.A., 1956-1962

Teaching and Lecturing on Stress Analysis at Various Universities (M.I.T., U.C.L.A., Wayne State University), U.S.A., 1958-1966

Founded Vishay Intertechnology, Inc., Malvern, PA, U.S.A., 1962

Chairman and CEO until 2004

Executive Chairman, Chief Technical Officer, and Chief Business Development Officer, Vishay Intertechnology, Inc.

CORPORATE PROFILE: Vishay Intertechnology, Inc., a Fortune 1,000 Company listed on the NYSE (VSH), is one of the world's largest manufacturers of discrete semiconductors (diodes, MOSFETs, and infrared optoelectronics) and passive electronic components (resistors, inductors, and capacitors). These components are used in virtually all types of electronic devices and equipment, in the industrial, computing, automotive, consumer, telecommunications, military, aerospace, power supplies, and medical markets. Vishay's product innovations, successful acquisition strategy, and "one-stop shop" service have made it a global industry leader.

Vishay can be found on the Internet at www.vishay.com.

HONORS:

Order of Merit for Research and Invention, France 1960
Conferred by Ministry of National Education and Ministry of Industry and Commerce

Edward Longstreth Medal Conferred by the Franklin Institute, 1962, U.S.A.

Citation: For his development of a photoelastic analysis technique by means of which, for the first time, it has been possible to analyze stresses quantitatively in actual structures for use in machine and structural design and for the development of the theory and instrumentation required

Distinguished Contribution Award Conferred by American Society for Stress Analysis, U.S.A., 1970

Citation: For outstanding original contributions to the technology of experimental mechanics through the development of birefringent coatings

Legion of Honor, the highest French government award, awarded in 1993, France; conferred by the President of France; contribution to science and industry

Best Strategic Investor Award, Israel, 1992; awarded by the Manufacturer's Association of Israel and presented by the President of the State of Israel

Master Entrepreneur Award, U.S.A., 1993

Electronic Industries Alliance 2001 Medal of Honor, U.S.A., awarded in the presence of the President of the United States of America

Lifetime Achievement Award, U.S.A., 2009; awarded by the National Electronic Distributors Association

Doctor Honoris Causa:

- 1. Ben Gurion University, Be'er Sheva, Israel**
- 2. Israel Institute of Technology, the Technion, Haifa, Israel**
- 3. Tel Aviv University, Israel**
- 4. University of Nancy, France**
- 5. West Chester University, U.S.A.**

PRODUCT DEVELOPMENT:

Felix Zandman is credited with the following developments used in industry and research:

- 1. PhotoStress –Photoelastic Coating Method of Stress Analysis**
- 2. Foil Resistor Technology – Essentially Zero Temperature Coefficient of Resistance**
- 3. Photoclusion – Photoplastic Measurement of Bite Conditions (Bio-Mechanics)**
- 4. Special Strain Gages**
- 5. Surface-Mount Power Non-Inductive Resistors**
- 6. Thermal Shroud used on guns of Merkava Tanks (First-Hit Accuracy)**

BOOKS:

“Study of the Deformation and Rupture of Polymers”, F. Zandman (Scientific and Technical Publication of the French Ministry of Air Force, Paris, 1954)

“Photoelastic Coatings,” F. Zandman, J. Dally, S. Redner (Iowa University Press, 1977)

“Resistor Theory and Technology,” F. Zandman, P.-R. Simon, J. Szwarc (Scitech, Inc., 2001)

“Never the Last Journey,” F. Zandman, autobiography (Schocken Books, 1995)

PUBLICATIONS:

Published many papers in the fields of Photoelasticity, Strain Gages, Moiré, Resistors, and Bio-Mechanics

PATENTS:

U.S.A. and abroad – 71 patents in the fields of Photoelasticity, Strain Gages, Moiré, Resistors, Potentiometers, and Semiconductors