1147 Mockingbird Hill Lane
San Jose, CA 95120

E-mail w2agz@w2agz.com
Web http://www.w2agz.com

Paul Michael Grant

Objective/Goal

To assist industry, government and media clients in the evaluation and assessment of emerging science and technology and its potential for application in the energy and information processing enterprises.

Education

PhD, Applied Physics, Harvard (Final Academic Degree)

Professional experience and qualifications

2004 - Present W2AGZ Technologies San Jose, CA

Principal

W2AGZ Technologies was formed in late 2003 as a consultancy framework to carry out the objectives and goals stated above. Please visit http://www.w2agz.com for more information. Recent activities:

- Current:
  - ◊ Due diligence technology and performance consultant to several Silicon start-up venture companies (lots of details on request).
  - ◊ Member, Advisory Committee on Superconductivity, Institute of Advanced Sustainability Studies (IASS), Potsdam, FRG.
  - ◊ Business Associate, High Capability Computing and Modeling Group, JPL/NASA/CalTech, Pasadena, CA.
  - ◊ Friend, Band of Angels capital group, Mountain View, CA.
- Ongoing:
  - ◊ Advancing the SuperGrid Vision.
  - ◊ Employing modern computational physics to explore pathways to room temperature superconducting materials.
  - ◊ Freelance science writer for Nature, Physics World, Cold Facts, and Power Magazine.
- Completed:
  - ◊ Review of the DOE and DOD program on power applications of superconductivity (final DOE assessment available on request).

2005 – 2008 Stanford University Palo Alto, CA

Visiting Scholar in Applied Physics

Investigating density functional and band structure methods as search tools for meta-stable phases of copper monoxides for use as potential hosts for new magnetic and/or superconducting compounds.

1993 - 2004 EPRI Palo Alto, CA

- Science Fellow (Final Position)
- Helped structure EPRI's $38 M Strategic Science and Technology program, particularly in superconductivity and advanced semiconductor materials to advance "Smart Grid" deployment. See Paul Grant's Website.
- Conducted "Future Watch OutPost" on emerging energy science and technology on behalf of electric utilities and EPRI executives. Especially monitored "bad science" outbreaks affecting public policy and utility decision making.
- EPRI media spokesperson on energy science issues.

1953 - 1993 IBM Corporation Armonk, NY

Research Staff Member - Manager (Final Position)

- Bowling alley pin setter and mail boy in IBM Poughkeepsie facilities.
- Technician/programmer on IBM/MIT/Air Force prototype for NORAD system.
- Sent to Clarkson University as employee on IBM program to obtain BS in Electrical Engineering, Summa Cum Laude.
- Sent to Harvard University, again as an employee, on IBM program to obtain AM, PhD degrees in Applied Physics.
- On return, undertook research on optical properties on magnetic semiconductors, pioneered early efforts in computer data acquisition and control at IBM Research, San Jose.
- Management staff assignment, Materials and Manufacturing Technology Center, IBM Research, San Jose.
- Co-founded internationally respected research effort on organic and polymer conductors and superconductors at IBM San Jose Research Laboratory.
- Management staff assignment, Vice President for Storage and I/O Technology, responsible for basic science strategy development and corporate display and printer technology programs at IBM San Jose Research Laboratory
- Led effort to formulate and then manage group to investigate exchange-biased magnetoresistance effect which resulted in IBM's magnetoresistive head and "giant magnetoresistive" head storage technology used worldwide today
- Organized and led IBM San Jose/Almaden effort in high temperature superconductivity, discovered five new superconducting materials, including structure of the first superconductor above liquid nitrogen and the world record Tl-2223 125 K material until 1994, and co-inventor on the basic international patent on high temperature superconductivity.
- IBM Visiting Professor of Materials Science, National University of Mexico, UNAM (1990-93).

Patents and publications

- Over 130 publications in peer reviewed literature.
- Over 50 editorials, popular articles, commentaries and book reviews.
- 10 patents and patent publications.

(details on above available at http://www.w2agz.com).

Awards received

- Recipient, First Distinguished Lectureship on the Applications of Physics Award, American Physical Society, 2014.
- Elected Fellow, Institute of Physics (UK), 1999
- Physics Today 50th Anniversary Essay Prize, 1999
- Elected Senior Life Fellow, American Physical Society, 1998
- Nature Magazine "Scientist as Science Writer" Award, 1994
- More than eight other awards from IBM, EPRI and the Mexican Government, details available at http://www.w2agz.com

Sample professional activities

- Science Advisory Board, Texas Center for Superconductivity at the University of Houston, 1997 – 2002
- Board of Directors, Council on Superconductivity for American Competitiveness, 1996 – 2002
- More than 20 other professional activities, memberships and participations, details available at http://www.w2agz.com

Interests and activities

72 years skiing recreationally and on mountain rescue organizations. Several awards and certifications for avalanche control and paramedic accreditation. Exploring the history of the discovery of high temperature superconductivity. Teaching the secrets of the universe to my Granddaughter, Devin Joan. Teaching my Grandson, Carter Michael, that he has to learn to kick with his left foot if he is to be successful in his emerging soccer career. Researching why my Irish ancestors left the beautiful west coast of Galway for America in the 1880s.