CURRICULUM VITAE-CARLOS FERNANDEZ-PELLO

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SUMMARY

TEACHING/RESEARCH

Mechanical/Aeronautical Engineer specializing in combustion, heat and mass transfer, and thermodynamics. Material flammability. Wildland fire spotting and propagation. Ignition and flame spread. Smoldering and transition to flaming. Wildland fire spotting and propagation. Solar energy storage. Bio-fuel production and characterization. Electro-magnetic enhanced combustion. Micro-scale power generation.

ACADEMIC BACKGROUND

Ph.D.	Engineering Science, University of California, San Diego, California, 1975
M.S.	Engineering Science, University of California, San Diego, California, 1973
Dr. Eng.	Aeronautical Engineering, Polytechnic University, Madrid, Spain, 1971
Aero. Eng.	Aeronautical Engineering, Polytechnic University, Madrid, Spain, 1968

PROFESSIONAL BACKGROUND

Education and Research (since receiving Ph.D.)

1980-present	Department of Mechanical Engineering, University of California, Berkeley. Distinguished Professor of the Graduate School (2019-present). Almy C. Maynard and Agnes Offield Maynard Chair Professor of Mechanical Engineering (2010-2020). Professor (1986-2010). Associate Dean Graduate Division (2003-2013). Vice-Chairman Graduate Council (2000-2001). Vice-Chairman of Graduate Matters, ME Department (1997-2000), Associate Professor (1982-1986), Assistant Professor (1980-1982).
1980-2000	Associate Faculty Scientist, Energy and Environment Division, Lawrence Berkeley Laboratory, Berkeley, California
1977-1980	Research Faculty Member, Department of Mechanical and Aerospace Engineering, Princeton University, Princeton, New Jersey.
1975-1976	Post-doctoral Research Fellow, Division of Engineering and Applied Physics, Harvard University, Cambridge, Massachusetts

Engineering Practice

1978-present	Consultant to government, industry, and private sector. Work related to performance of combustion systems, accidental fires and explosions in industry and transportation, wildland fire spot ignition by hot metal particles and embers.
2008-present	Co-founder Reax Engineering, Berkeley, CA. Consulting related to product liability: wildland and structural fire ignition; self-ignition and smolder; accidental fires and explosions.
1968-1971	Research Engineer, SENER, Madrid, Spain. Development of heat exchangers and cooling towers.

PROFESSIONAL ACTIVITIES AND SERVICE

Member/Consultant/Reviewer: Fellow of the Combustion Institute and of the American Society of Mechanical Engineering (ASME). Member of the Royal Academy of Engineering of Spain. Universities Space Research Association, Microgravity Science and Applications Council (2001-2016). Center for Pure and Applied Mathematics, U.C. Berkeley, board of directors (2001-2002). NASA Space Station Science and Applications Advisory Committee, (1990-1996). Lawrence Livermore National Laboratories, (1984-1997). National Institute of Standard and Technology, Center for Fire Research, (1982-83). CI, DOE, IAFSS, NASA, NFPA, NRC, NSF.

Editorial Advisory Board: Combustion Institute (2013-present). Combustion Science and Technology (1992-present), Progress in Energy and Combustion Science (1995-2006), Combustion and Flame (1994-2001). Combustion Journal (2009-2010)

AWARDS

Honorary Dr. of Engineering Degree, Universidad Nacional San Marcos, Peru. "Distinguished Alumni" Award from U.C. San Diego. The "Howard Emmons Award" from the International Society of Fire Safety Science (IAFSS). "The International Prize" from the Combustion Society of Japan. The "2022 Microgravity and Space Processes Award" from the AIAA. The Philip Thomas Medal of Excellence for the Best Paper at the 6th International Symposium of Fire Safety Science. Journal Award from the Combustion Society of Japan for PECS publication. Medal of "Academico" from the Spanish Royal Academy of Engineering. Pi Tau Sigma Award for Excellence in Teaching, Department of Mechanical Engineering, U. C. Berkeley. Fellowships from the Fulbright and Juan March Foundations, the Japan Society for the Promotion of Science (JSPS) and Ministry for Industry and Technology (MITI), and the French and the Italian Centers for National Research.