

David Hackleman, Ph. D.

- Experience**
- 2003- Oregon State University ChE Corvallis, OR
Linus Pauling Chair
- Focus: Work-Ready Graduating Chemical Engineers from OSU
 - Develop and Implement hands-on laboratory experiences relevant to the 21st Century ChE.
 - Integrate Standard Engineering Business practices into Engineering Curricula jointly with other faculty members.
- 2002- Hackleman Consulting, LLC Monmouth, OR
Consultant
- Focus: Chemistry (Electrochemistry), Physics (Nanosciences), Engineering (Solid State, Computer Engineering and Electronics)
 - Identify technology strategies
 - Benchmark Company and Institution Research programs
 - Develop Intellectual Property
- 1997- Dave's Radios, LLC Monmouth, OR
Personal Communications Products
- Focus: Search and Rescue and Amateur Radio devices
 - Antennas, Solid-State Amateur Radio Equipment development
 - Restoration of Vacuum Tube Amateur Radio Equipment
- 2001-2002 Hewlett-Packard Company Corvallis, OR
Chief Technologist, Technology Development Operation
- Identify technology strategies
 - Leadership role in developing future HP technical directions
 - Oregon University System technical liaison
- 1999- Oregon State University Corvallis, OR
Adjunct Faculty member
- Current project: Senior ECE course enhancements
 - Co-instructor, ECE Senior Projects Course ECE 44x 1999-2002
 - Required Senior ECE Course (approximately 110 students annually)
- 1998-2000 Hewlett-Packard Company Corvallis, OR
Section Manager, PHM Yield and IC Test
- Merged three separate organizations in IC Test while in operation
 - Developed and implemented true yield planning for the organization

- Major yield improvements on all product lines during period.
- Mentor, OSU ECE Department 1998-1999 (Senior Projects Course)

1997-1998 NYSF Charleston, WV

Volunteer, Fund Development (LOA from H-P)

- Developed a fund raising program
- Co-organized and ran a reunion for Foundation Alumni
- (NYSF is the National Youth Science Foundation)

1994-1997 Hewlett-Packard Company Corvallis, OR

Process Engineering Manager

- Team Started-up World Class Ink Jet MOS Wafer Fab on Schedule
- Developed strong Engineering Team through Hiring & Promotion
- Developed new test technologies specific to Ink-Jet technology

1990-1993 Hewlett-Packard Company Corvallis, OR

R/D Project Manager

- Team invented off-axis ink systems for Thermal Ink-Jet Technology
- Team Demonstrated page-wide array printing (Thermal Ink-Jet)

1989-1990 Hewlett-Packard Company New York, NY

Faculty Loan Professor, City College of New York (Harlem)

- Professor of Solid State Electronics (EE department)
- Introduced a Solid State Electronics Lab program to the College
- Received "Distinguished Teacher" award

1984-1989 Hewlett-Packard Company Corvallis, OR

R/D Project Manager, Ink Chemistry Team

- Team invented plain paper ink for Thermal Ink-Jet Technology
- Team developed and implemented Ink manufacture for Thermal Ink-Jet

1978-1984 Hewlett-Packard Company Corvallis, OR

R/D, Mfg., Project Manager and Engineering positions

- Integrated Circuit Technologist (Photolithography Eng. Proj. Mgr.)
- Product Engineer (IC Test activities)
- Process Engineer (R/D of CMOS)
- Invented and Developed Etch (Wet & Dry) and Photolithography processes

1973, 1974 (Summers) American Microsystems, Inc. Santa Clara, CA

R/D, Mfg, Engineer

- Measured Sub-threshold Currents in CMOS devices

- Developed and implemented the first Ion Implantation Test Device at AMI
- Product Engineering Responsibilities for a 1K SRAM device

Education

1973-1978 U. North Carolina Chapel Hill, NC

- Ph.D. Chemistry
- Classes Taught: Analytical Chemistry, General Chemistry, and Electronics.
- Specialty: Analytical Electrochemistry (Ion Selective Field Effect Devices and Electrochemical Noise reaction kinetics)

1969-1973 Oregon State University Corvallis, OR

- BS Electrical and Computer Engineering
- Graduated with Academic Honors
- Honors College Program Completion
- Senior Project: Radio Telescope

Honors, Awards:

- Patents: 16 (Ink-Jet and MOS-IC technology); addl. International filings
- Hewlett Foundation Engineering Schools of the West Grants Initiative Review Committee (2002)
- Oregon State University "President's Club" (2002)
- Engineering Technology Industry Council, State of Oregon (2001-present)
- Oregon State University "Distinguished Alumni" College of Engineering: (2001)
- First recipient, Industry Collaborator of the Year Award, Oregon State University, Electrical & Computer Engineering Department (2000)
- Member of Industrial Advisory Board, Oregon State University Electrical & Computer Engineering Department (1999-present)
- Benton County Recognized Citizen [Gazette-Times] (1998)
- Board of Advisors, Oregon State University Chemistry Department (Charter member, 1997-present)
- Trustee, National Youth Science Foundation (1995-present)
- Duane Marshall Special Service Award, Oregon Science Teachers Association (for work on Science Education in High Schools) (1995)
- Corvallis Community Band, other musical groups (1992-present)
- Assistant Emergency Coordinator, Benton County Oregon Amateur Radio Emergency Services Group. (1992-present)
- Associate Editor "Research Spectrum" The Northwest Journal of Student Science (1992,3)
- National Team that developed a Core Chemistry Curricula proposal for Junior Colleges. Dr. John Amend of Montana State University was the principle investigator. (1992)
- Board of Advisors for the National Youth Science Camp Alumni Association (Charter member: 1983 – 1998)

- Tutor of courses from Stanford University that were part of a graduate Engineering program operating at HP-Corvallis. Courses in Electrical Engineering, Solid State Physics, and Photolithography. (1981-1987)
- Elected President or Chair of several organizations. Some positions: President of the Friends of the OSU Library during the Fundraising activity for the new building (1990's), President of the Oregon Section of the Electrochemical Society (1980's), President of the Graduate and Professional Students of the University of North Carolina at Chapel Hill (1977-1978).
- Amateur Radio Operator since 1967 (Extra Class)

Publications:

- Birrell, G.C., Hackleman, D.E., and Porter, C.R. "How to build and Operate an Inexpensive Polarograph" Chemistry, 43 3 (1970) 26. (written while in High-School. Birrell was the teacher, Porter was another student)
- Hackleman, David. Readers Letters contribution Electron Devices Society Newsletter, 49 (July 1977) 3. (Subject : Design for energy conservation to avoid brown outs)
- Buck, R.P. and Hackleman, D.E. "Field Effect Potentiometric Sensors" Anal. Chem., 49 14 (1977) 2315. (written while in Graduate School at UNC-CH)
- Hackleman, David, Vlasov, Yu. G., and Buck, Richard P. "A Simple Technique for Silicon Nitride Growth" Journal of the Electrochemical Society 125 11 (November 1978) 1875.
- Hackleman, David Eugene. Part: I Field Effect Ion Selectivity; Part II : Electrochemical Noise (1978) (Dissertation, UNC-CH)
- Vlasov, Yu. G., Hackleman, D.E., and Buck, R.P. "Fabrication of a Silver, Chloride, and Bromide-Responsive ion Selective Field Effect Potentiometric Sensor" Anal. Chem., 51 9 (August 1979) 1570.
- Hackleman, D.E., Johnson, N.L., Lage, C.S., Vietor J.J., and Tillman, R.L. "CMOSC: Low-Power Technology for Personal Computers" Hewlett-Packard Journal, 34 1 (1983) 23.
- Nielsen, H. and Hackleman, D.E. "Some Illumination on the Mechanism of SiO₂ Etching in HF Solutions" J. Electrochem. Soc., 130 3 (1983) 708. (Written while working at HP on MOS IC Process design)
- Hackleman, David. "Where the Ink Hits the Paper ..." Hewlett-Packard Journal, 36 5 (May 1985) 32.
- Buskirk, William A., Hackleman, David E., Hall, Stanley T., Kanarek, Paula H., Low, Robert N., Trueba, Kenneth E., and Van de Poll, Richard R. "Development of a High Resolution Thermal Inkjet Printhead" Hewlett-Packard Journal, 39 5 (October 1988) 55.
- Hackleman, D.E. Laboratory Guide for Solid State Electronics Experiments CCNY Press. 1990, 1991-. (Written to allow students to use a laboratory constructed during year as visiting professor In EE at City College of New York)

Presentations:

- 5 papers presented at Hewlett-Packard's Semiconductor Technology Conferences: Topics range from lithography through etch and deposition techniques for MOS (1980's)
- More than 20 invited lectures at the National Youth Science Camp: Topics range from integrated circuit technology and inkjet printing through international manufacturing techniques (1980 to present)
- More than 10 invited directed studies at the National Youth Science Camp: Topics in engineering and technology
- Guest speaker at U.S. Senate Luncheon for the National Youth Science Camp program (1997)
- Many invited lectures at various academic institutions (Oregon State University, University of Washington, Washington State University, Lewis & Clark College, Reed College, Eastern Oregon University, University of South Bank, London UK, Portland State University, Mt. Hood Community College, Case Western Reserve, North Carolina A & T University, University of North Carolina – Chapel Hill, etc.) Topic: Predominantly integrated circuit and inkjet technologies.
- Invited lectures at professional societies (e.g. Electrochemical Society chapter meetings, IEEE Section meetings, American Society for Engineering in Medicine and Biology national meeting)