

IEEE Region 6 Awards – 2009-2010

NOMINATION FORM

(for Area Awards, and also for Region 6 Awards)

(This Nomination form is to be used by Sections for Area Award Nominations for all categories. This form is also to be used by Sections-via-Areas for Region 6 Award Nominations. Please use one form per Nomination.)

Area → Central, NE, NW, Southern, SW

Award Category of the Nomination:

- Outstanding Engineer Award
- Outstanding Leadership and Professional Service Award
- Outstanding Section Award
- Outstanding Corporate Service to Engineering Community Award
- Outstanding Student Branch Award
- Director's Special Award / Area Chair's Special Award

Name (Individual/Section/Student-Branch/Company): William J. Jameson

Address: 1404 S Bozeman Ave, Bozeman, MT 59715

Phone: 406-586-0280 e-Mail: JamesonWJ@AOL.COM

Occupation: _____

Title/Position: Senior Research Scientist

IEEE Grade: Life Senior Member Date of Grade: _____

Company: Type of Business, # of employees, etc. Montana State University

Proposed Citation: For a lifetime of outstanding leadership and professional service to the IEEE, to the university and to the profession.

Supporting information to be attached, as appropriate and applicable:

- (a) Engineering Career (Brief Summary), (b) Education, (c) Research/inventions, (d) Contributions to engineering literature, (e) Contributions to IEEE activities, (f) Contributions to the community
- Outstanding accomplishments of the Section
- (a) Company contributions to engineering, (b) Company support of IEEE activities, (c) Company contributions to the community (monetary and other relevant contributions)
- Outstanding accomplishments of the Student Branch
- Region 6 Director's Special Award / Area Chair's Special Award

Montana Section
Section Name

Randy Larimer, Richard Wolff, Doug Galarus
Name of Nominator (Section Awards Chair or Section Chair)

Signature of Nominator (Section Awards Chair or Section Chair)

Section Chair
Title of Signer/Nominator

randy_larimer@msn.com / 406-994-5970
Phone / e-Mail

18 February 2009
Date

Elisa H. Barney Smith
Signature of Area Awards Chair or Area Chair (for Region Awards)

5 June 2009
Date

Note: This nomination form with attached summary and description of service and accomplishments must be submitted by the Section Chair to the respective Area Awards and Advancement Chair, by April 30, 2008. Nominations received after this deadline may not be considered for awards.

IEEE MONTANA SECTION

TO: ELISA BARNEY SMITH, IEEE REGION 6 NORTHEAST AREA AWARDS CHAIR

FROM: RANDY LARIMER, SECTION CHAIR; RICHARD WOLFF, PAST CHAIR; DOUG GALARUS, PACE CHAIR – MONTANA SECTION

SUBJECT: NOMINATION OF DR. WILLIAM J. JAMESON FOR OUTSTANDING LEADERSHIP AND PROFESSIONAL SERVICE AWARD

DATE: 6/6/2009

It is the pleasure and honor of the Montana Section to nominate Dr. William J. Jameson for the Area Outstanding Leadership and Professional Service Award. Following is a brief summary of Dr. Jameson's qualifications for this award. Please see the attached resume for further detail. Dr. Jameson is well-deserving of this award.

ENGINEERING CAREER

Dr. Jameson's engineering career spans six decades, and includes military, private sector, public sector, education, and research and development experience. Dr. Jameson is currently active in engineering and mentoring, conducting part-time research at Montana State University in the application of communication technology to public safety. Dr. Jameson has held positions of officer, scientist, engineer, executive and professor throughout his engineering career.

EDUCATION

Dr. Jameson holds a bachelor's degree in Mathematics, a master's degree in Physics, and a PhD in Applied Mathematics. Dr. Jameson has held professor positions at Iowa State University, Michigan State University, and Montana State University. Dr. Jameson continues to be active in educational activities focused on pre-college engineering awareness.

RESEARCH / INVENTIONS

Dr. Jameson has conducted research and development in numerous areas including nuclear weapons operation and effects, molecular systems as applied to missile and space technology, mathematics and computation analysis for non-linear heat conduction and point source problems, aircraft and collision avoidance systems, wave propagation analysis, atmospheric attenuation, aviation sensors, computer-aided design, computer I/O, electro-magnetic interference, public safety communication system design and implementation, network design, telecommunications, video conferencing, digital television, propagation analysis, and transportation.

CONTRIBUTIONS TO ENGINEERING LITERATURE

Dr. Jameson has published peer-reviewed articles and presented at technical conferences. Dr. Jameson is a contributing author to a widely used communications systems text, and has published several papers for the IEEE related to engineering education.

CONTRIBUTIONS TO ENGINEERING ACTIVITIES

Dr. Jameson is an IEEE Life Senior Member and has held numerous officer positions in IEEE including Section Chair for both the Montana and the Cedar Rapids Sections. Dr. Jameson continues involvement at the National level, actively serving on the IEEE Life Member Committee. Dr. Jameson has served in National-level officer positions for the Society for Industrial and Applied Mathematics (SIAM), has chaired a conference, and is a member of Sigma XI and the Iowa Academy of Science. Dr. Jameson serves as Montana Section Newsletter editor, having been sole editor since he initiated the Section Newsletter.

CONTRIBUTIONS TO THE COMMUNITY

Dr. Jameson has been involved with Kiwanis since high school and has served in state and local officer positions. Dr. Jameson is Newsletter editor for the Bozeman Kiwanis Club. Dr. Jameson has served on numerous state and National public safety communications committees, task forces and councils.

Resume` of William J. Jameson

Name: William J. Jameson

Education:

University of Montana, 1948-52; BA - Mathematics

University of Texas, 1953-54; MA - Physics

Iowa State University, 1959-62; Ph.D. - Applied Mathematics

Teaching Experience:

- A. Iowa State University, 1962-1981.
Asst. Prof. (part-time) 1962-1968; Assoc. Prof. (part-time) 1968-1972; Adjunct Assoc. Prof., Applied Mathematics and Computer Science, 1979-1981.
- B. Visiting Professor of Telecommunications, Michigan State University (part-time) 1986-1987.
- c. Assistant Professor of Electrical Engineering, Montana State University, 1987 to 2000.

Occupational Experience:

- A. USAF 1952-1958.
(1) Nuclear Research Officer, 1954-1958. Performed theoretical studies of weapons effects (on aircraft and personnel). Responsible for planning technical aspects of air operations in weapons effects tests at Nevada Test Site and Eniwetok Proving Ground. (Aircraft and personnel safety from weapons effects, radiological health, etc.)
(2) Director, Administrative Services, Task Group 7.4 (Prov) and 4950th Test Group (N), 1956-1957.
- B. Lockheed Missiles and Space Co., 1958-1959.
Chemical Physicist in Research Division. Conducted theoretical studies on interactions of small molecular systems.
- C. Collins Radio Co., 1962-1972.
Research mathematician/engineer and consultant on applied mathematics and scientific computation. Specific projects include analysis of non-linear heat conduction and point source problems for Project Apollo; analytical studies for aircraft and marine collision avoidance systems; wave propagation analysis; study of integral equations of atmospheric attenuation by O₂ and CO₂; analysis of digital servo systems for F-15 horizontal situation indicator (developed numerical techniques for solving initial value problems with finite jump discontinuities in the state derivatives); computer-aided-design algorithm development; system simulations of computer I/O channels; general analysis design program for inverters; evaluating electro-magnetic interference.
Coordinated Collins Radio off-campus graduate education programs.
- D. Spectra Associates, 1972-1985.
Principal Associate and Vice-President. Provided technical and/or overall project direction for system analysis and design of numerous telecommunications systems and networks:
 - 1. Public safety communications system and/or 911 system designs for Rockford/Winnebago County, Rock Island City/County, Will, Sangoman, Tazewell, Woodford Counties and several smaller cities/counties in Illinois;

Regions 5 & 6 of the Nebraska Law Enforcement Commission (the group of counties surrounding Metropolitan Omaha), Scotts Bluff County and the City of Scottsbluff, Nebraska; Cleveland, Ohio Police Department; Fresno County, California; Outagamie County, Wisconsin; the City and County of Dubuque, Iowa.

2. State telecommunications systems and/or network designs for the States of Louisiana, Michigan, Missouri and Maryland.
- E. Director of Telecommunications, State of Michigan, 1985-1987. Responsible for implementation and management of 18,000 line telephone system and associated electronic tandem network and for telecommunications engineering and planning for all state agencies.
 - F. Senior Research Scientist, Western Transportation Institute, Montana State University. Performing telecommunication systems and propagation studies/designs 2006-date.

Consulting:

- A. City of Great Falls/Cascade County, Montana: Developed bid specifications for a radio communications control console system (1989-90).
- B. Park County, Montana: Planning and specifying County-wide 9-1-1 system, radio control console system and radio frequency system upgrade (1992-94).
- C. With Thomas Austin, designed and implemented Interactive Video Arraignment Systems for:
 1. Connecting the Gallatin County Detention Center to:
 - a. Three Justice of the Peace Court facilities.
 - b. Bozeman Municipal Court.
 2. Connecting the Lewis and Clark County Jail to:
 - a. Justice of the Peace Court
 - b. Helena Municipal Court
- D. Gallatin County, Montana. Developed system design and specifications for an interactive video system connecting West Yellowstone to the Gallatin County Juvenile Probation Office (2001).
- E. Montana PBS. Performed propagation studies related to the Montana PBS conversion to digital television for seven sites (2002-2003).
- F. Western Transportation Institute, Montana State University. Performed propagation studies related to Ca;trans and Yellowstone National Park projects (2004-2006).

Publications:

Textbooks:

- A. Jameson, W. J. "Applications of Mathematics in Electrical Engineering" IEEE Educational Activities Board, 1991. Third printing, as revised, 1992.
- B. Jameson, W. J. "Applications of Mathematics and Statistics in Electrical Engineering" IEEE Educational Activities Board, 1996.
- C. Jameson, W.J. Chapter 8, "Emerging Digital Communications Technologies", in B.P. Lathi, "Modern Digital and Analog Communications Systems", Oxford University Press, 1998.

Papers:

- A. Aroeste, Henry and Jameson, William J. Jr., "Short-Range Interaction between a Hydrogen Molecule and a Hydrogen Atom", Journal of Chemical Physics, February, 1959.
- B. Jameson, William J. Jr., and Aroeste, Henry, "Short-Range Interaction between a Hydrogen Molecule and a Hydrogen Atom. II", Journal of Chemical Physics, February, 1960.
- C. Nehrir, M. H., Jameson, W. J., Gerez, V. and Braun, E. A. "A PC-Based Software for Prediction of Electric Heating Load on Distribution Feeders", Proc. American Power Conference, 1992. Contribution: Developed software package for Monte Carlo simulation/prediction of electric heating load.
- D. Jameson, W. J., "A Hands-On Approach to Engineering Statistics", ASEE Pacific NW Section Annual Conference, 1991. (Outstanding paper award).
- E. Jameson, W. J., "A Novel Approach to the Engineering Laboratory Experience", ASEE Pacific NW Section Annual Conference, 1992.
- F. Nehrir, M. H., Jameson, W. J., and Gerez, V. "Prediction of Residential Heating Load on Distribution Feeders", MEPRA Report No. 29061-1, August, 1991.
- G. Jameson, W. J. and Hawkins, D. "Public Safety Radio Communications Plan for Region 25, The State of Montana", NPSPAC Region 25 Final Report and Plan, June, 1991.

Professional Societies:

- A. Life Senior member, Institute for Electrical and Electronics Engineers. Chairman, Cedar Rapids Section, 1979-80. Member, Committee on Communications and Information Policy (CCIP) 1985-1988. Assistant Secretary, Montana Section (1993); Chair (1996). Member, IEEE Life Member Committee, 2005-date.
- B. Secretary, Society for Industrial and Applied Mathematics, 1963-1968; Vice-President for Programs, 1968-1973. Chair, Joint Conference on Computer Aided Design (ACM, IEEE & Siam), 1969.
- C. Fellow, Iowa Academy of Science.
- D. Sigma XI.

Honors and Awards:

- A. 1991 ASEE Pacific NW Section Annual Conference Outstanding Paper Award.
- B. Registration Grant, Western Communications Forums, 1991, 93, 94, 95, 96 (approximately \$1,500 each).

Other Assigned Duties:

EE Department

- A. High School Relations Committee. Student recruitment.
- B. Conducted Annual Employer and Alumni Survey.
- C. Curriculum Committee.
- D. Equipment Gifts Committee.
- E. United Way Representative.
- F. Coordinator, EE Co-Op Program

College

Member, University Search Committee for Information Services Executive Director

Service Activities:

- A. Chair, National Public Safety Plan (FCC Region 25) Committee to define procedures and standards for use of 800 MHz spectrum by public safety agencies in the State of Montana (1991 - date).
- B. Service club: Member Bozeman Kiwanis Club; Lt. Governor, Montana Division 6 (1991-92).
- C. National Steering Committee, 800 MHz Planning, Associated Public Safety Communications Officials
- D. Member, State of Montana Public Safety Communications Task Force (1994-1997).
- E. Member, State of Montana Public Safety Communications Council/Statewide Interoperative Communications Council (1997-2006). Chair, Council Technology Committee.
- F. Reviewer for IEEE Potentials, journal for students in electrical engineering.

There is no finer example of what the Montana Section has to offer than to nominate Dr. Bill Jameson for the IEEE-USA Professional Achievement Award.

Dr. Jameson holds a bachelor's degree in mathematics, a master's degree in physics, and a PhD in applied mathematics. He has been on the faculty at Iowa State University, Michigan State University, and Montana State University, and continues to be active in educational activities focused on pre-college engineering awareness.

Dr. Jameson has conducted research and development in numerous areas including nuclear weapons operation and effects, molecular systems as applied to missile and space technology, mathematics and computation analysis for non-linear heat conduction and point source problems. He has contributed to aircraft and collision avoidance systems, wave propagation analysis, atmospheric attenuation, aviation sensors, computer-aided design, computer I/O, electro-magnetic interference. His work extends into public safety communication system design and implementation, network design, telecommunications, video conferencing, digital television, propagation analysis, and transportation.

As a result of his work, Dr. Jameson has published peer-reviewed articles and made presentations at technical conferences. He is a contributing author to a widely used communications systems text, and has published several papers related to engineering education for the IEEE.

Dr. Jameson is an IEEE Life Senior Member and has held numerous officer positions in IEEE geographic region activities, including stints as chair for both the Montana and the Cedar Rapids Sections. He continues IEEE involvement at the national level, actively serving on the Life Member Committee. He has served in national-level officer positions for the Society for Industrial and Applied Mathematics, has chaired a conference, and is a member of Sigma XI and the Iowa Academy of Science. He initiated the Montana section newsletter, the *Moose Call*, and continues to serve as its editor.

Dr. Jameson is also involved with the larger community. He has been involved with Kiwanis since high school and has served in state and local officer positions, and is the newsletter editor for the Bozeman Kiwanis Club. He has served on numerous state and national public safety communications committees, task forces, and councils.

We have a major contributor in our midst. It is therefore our great pleasure to nominate Dr. Bill Jameson for the IEEE-USA Professional Achievement Award, for an engineering career that includes excellence in education, research, and service to the professional and general communities.

Mitchell K. Hobish
MT Section Chair 2009

Doug Galarus
Past MT Section Chair

Richard Wolff
Past MT Section Chair

Arlyn Selting
MT Section Life Member Affinity Group Chair

Randy Larimer
Past MT Section Chair

Elisa Barney-Smith
Region 6 Northeast Area Chair