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Brief Vita



Dr. Casali is the John Grado Professor of Industrial and Systems Engineering (ISE) and Director of the Auditory Systems Laboratory at Virginia Tech in Blacksburg, VA. He holds three Board Certifications: Certified Professional Ergonomist (CPE registration # 222), Certified Industrial Ergonomist (CIE registration # 000-072604), and Certified Human Factors Engineering Professional (CHFEP registration # 000-808304). He attended public schools in Princeton, WV and received a B.S. in Psychology (1977) and M.S. (1979) and Ph.D. (1982) degrees in Industrial Engineering (IE) with concentrations in Human Factors Engineering at Virginia Tech. During his graduate work, he received two IE scholarships and was a Virginia Tech Cunningham Dissertation Year Fellow. He joined the faculty in 1982 and was promoted to Associate Professor with tenure in 1986, to Full Professor in 1991, to the Grado Professorship in 1996, and was Department Head from 1995-2002. He is an international authority on ergonomics, hearing protection, and auditory displays.

In February, 2006, Dr. Casali was elected *President* of the *National Hearing Conservation Association*, an international organization whose mission is to prevent hearing loss due to noise and other environmental factors in all sectors of society. In May of 2005, he received the *Institute of Industrial Engineers (IIE) Alexander Holtzman Distinguished Educator Award*, the premier industrial engineering educator award, and in 1999, he also received from IIE the *David Baker Award*, the premier industrial engineering research award. He currently is on the Scientific Advisory Board of Personics, Inc., of Florida.

As Department Head (1995-2002), Dr. Casali recruited 15 faculty and played a significant role in procuring over \$7.2 million in donations and scholarships/fellowships, including a major endowment which resulted in the permanent naming of the ISE department for the benefactor (Mr. John Grado). Under his leadership, in 2000 the ISE department was named as one of three *Exemplary Departments* at Virginia Tech for accomplishments toward diversity and multiculturalism. In 2002, the ISE department also rose to become the 7th-ranked department nationally in *U.S. News and World Report* rankings for undergraduate programs and 8th-ranked for graduate programs, and it is one of the top-ranked programs at Virginia Tech.

As a consultant, Dr. Casali has served over 60 U.S. and foreign companies and organizations in over 90 projects concerning acoustics and hearing protection, ergonomics, warning signal design, and operator displays. He is active as a legal consultant, having served in expert witness or other forensic support capacities on over 40 cases involving industrial safety, product and premises liability, hearing-critical arbitration, acoustic alarms, community and occupational noise, and patent litigation.

Dr. Casali has research interests in human factors and ergonomics, and he has conducted experiments concerning hearing protection devices, active noise cancellation, headset design, ear anthropometry, aircraft cockpit communications, truck safety, driver-vehicle interaction and vehicular displays, warning signal design, and operator communications in noise and under workload. He also currently co-directs the Virginia Tech Vehicle Driving and Aircraft Simulator Facility, and has developed both a truck and an automobile simulator. His research, spanning over 60 separate projects, has been funded to a total of over \$5.5 million by a variety of government and military agencies (e.g., FHWA, NIOSH-CDC, U.S. Army Aeromedical Research Laboratory, U.S. Army Human Engineering Laboratory, Naval Training Systems Center, U.S. Bureau of Mines), as well as industrial corporations (e.g., Alcoa, General Motors, Toyota, Battelle, United Parcel Service, Carilion Health Care Systems, Peltor AB and Bilsom AB of Sweden, Bose Corp., Shure Inc., Sound Innovations, Inc., Cabot Safety, AEARO Corp., Custom Protect Ear, Inc., and Aviation Supplies and Academics, Inc.). A large portion of his work on hearing protection has been supported by the National Institutes of Health.

Dr. Casali founded and developed the Auditory Systems Laboratory, which is unique among U.S. academic institutions in that it is equipped to conduct experimentation on and testing of hearing protectors as per ANSI Standards S3.19-1974, S12.6-1984, and S12.6-1997, as well as several ISO and military standards. This facility houses both anechoic and reverberant acoustical chambers as well as a variety of acoustical and audiometric

instrumentation. Many of the publications emanating from the laboratory concern hearing protection, auditory signal detection, and in-vehicle displays; Dr. Casali is considered to be a leading expert in these research areas.

Dr. Casali became a *Fellow* of the Institute of Industrial Engineers (IIE) in 2001, and a *Fellow* of the Human Factors and Ergonomics Society in 1994. He is also a member and former Vice-President of the National Hearing Conservation Association, and a member of the Institute of Noise Control Engineering, Sigma Xi, Alpha Pi Mu, Psi Chi, and Phi Kappa Phi. He is an Editorial Board member of *Human Factors* and serves as reviewer for several other journals. He is active on several ANSI and ISO Standards committees dealing with hearing protection and human engineering standards. In 2004, he was appointed to the Scientific Advisory Board of the Oxford Research Institute in Maryland, and in 2007 to the same Board for Personics, Inc. of Florida.

Dr. Casali has received several research and teaching awards from the Human Factors and Ergonomics Society (HFES), including the *Paul M. Fitts Award* (September, 1997) for outstanding contributions to the education and training of human factors specialists, and the *Jack A. Kraft Award* (September, 1991) for his efforts to extend or diversify the application of human factors to hearing loss prevention. He also received the *American Psychological Association Briggs Award* for the Outstanding Dissertation in Engineering Psychology for 1982. From the National Hearing Conservation Association (NHCA) he received the *Outstanding Lecture Award* based on audience ratings for his paper at the 1991 NHCA Conference and the 1994 *Media Award* for television and newspaper interviews he gave on the problems of noise exposure. In September, 1994 he was interviewed and the Virginia Tech Auditory Systems Lab featured on three national Cable News Network (CNN) TV shows: *World News Tonight*, *Headline News*, and *Science and Technology Week*. In May, 1998, Virginia Tech awarded him the *Engineering Award for Excellence in Research* while he was serving as Department Head of Industrial and Systems Engineering. In September, 2002, Virginia Tech awarded him its highest research award, the *Alumni Award for Research Excellence*. In May, 2006, he received the *Outreach Excellence Award* for the College of Engineering at Virginia Tech.

Dr. Casali has been a versatile teacher, receiving several commendations for his classroom performance. Under Casali's chairmanship, 26 M.S. and 17 Ph.D. students have completed degree requirements to date. He credits much of the research accomplishments of the Auditory Systems Laboratory to the work of these students. He and a former student are co-holders of two U.S. Patents (#5,333,622 and #5,131,411) for custom hearing protection and communications devices. Dr. Casali has another U.S. patent (#5,651,422) for a detachable power drive/steer attachment for a folding wheelchair, and several other patents pending. He has authored noise ordinance legislation adopted by a small city and participated in numerous public hearings on zoning and community noise annoyance issues.

In the human factors engineering and acoustics literature, Dr. Casali has authored over 150 publications, including over 100 refereed papers. He has also given over 130 technical presentations, workshops, and seminars, including plenary or invited speeches at conferences in South America, Canada, NATO-AGARD in Belgium, Germany, and Denmark, as well as in the U.S.

A sampling of Dr. John Casali's publications follows.

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Casali, J.G. Protection and enhancement of hearing in noise. Chapter 7 in Williges, R. C. (Ed.) *Reviews of Human Factors and Ergonomics, Volume 2*, Santa Monica, CA: Human Factors and Ergonomics Society, 2006, 195-240.

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