

KSTC

K E N T U C K Y
SCIENCE & TECHNOLOGY
C O R P O R A T I O N

KSEF Fellow Reception

Tuesday, May 2, 2017
4:00-6:00 PM

Copper Roux, 861 South Broadway, Suite 420
Lexington, KY 40504



KSEF Fellow is an honor conferred by the Kentucky Science & Technology Corporation (KSTC), through the Kentucky Science & Engineering Foundation (KSEF).

The honor is bestowed to distinguished persons to recognize their significant contributions to the advancement of excellence in science and engineering in Kentucky, thereby helping foster a science and engineering innovation-based entrepreneurial culture in the Commonwealth.

KSTC elected ten KSEF Fellows effective December 12, 2016:

- ❖ Kimberly Ward Anderson, Ph.D., University of Kentucky, Lexington, KY
- ❖ Blaine Ferrell, Ph.D., Western Kentucky University, Bowling Green, KY
- ❖ Mr. Jere Glover, Small Business Technology Council, Washington, DC
- ❖ Mr. Paul Nabih Korkemaz, Korkemaz Business Advisors, Dunn Loring, VA
- ❖ Charles E. Kupchella, Ph.D., University of North Dakota President Emeritus
- ❖ Dr. Benjamin K. Malphrus, Morehead State University, Morehead, KY
- ❖ James E. Miller, Ph.D., Transylvania University, Lexington, KY
- ❖ Mr. Rick Shindell, Zyn Systems, Sequim, WA
- ❖ Mahendra Kumar Sunkara, Ph.D., University of Louisville, Louisville, KY
- ❖ Stacy S. Wilson, Ph.D., Western Kentucky University, Bowling Green, KY

Kimberly Ward Anderson, Ph.D.



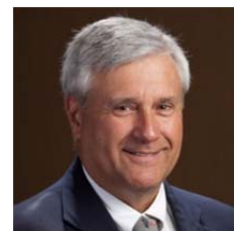
Dr. Kimberly Ward Anderson is the Gill Eminent Professor of Chemical Engineering at the University of Kentucky. Dr. Anderson joined the University of Kentucky in 1987. She received her Bachelor's in Chemical Engineering from Youngstown State in Youngstown, OH, and Ph.D. degree in Chemical Engineering and Bioengineering from Carnegie Mellon University in Pittsburgh, PA.

Dr. Anderson's research focuses on understanding how cancer spreads through the body and improving cancer treatment. Her research efforts have resulted in over 60 publications and over 200 presentations at regional and national meetings.

In addition to developing her own nationally recognized research program, she has been recognized for her teaching and mentoring efforts through a number of awards including the SEC Faculty Achievement Award (2013), the Research Mentor Award from the University of Kentucky Undergraduate Research Program (2012), the Outstanding Chemical Engineering Teacher Award (2011), the College of Engineering Henry Lutes Teaching Award (2011), and the University's Provost Outstanding Teacher Award (2012). She was also awarded the University's Sarah Bennett Holmes Award (2002) for specifically mentoring women students in engineering.

Dr. Anderson also serves as Associate Dean of Administration and Academic Affairs in the College of Engineering. In this role, she has taken the lead on a major initiative to establish a First Year Engineering Program at the University of Kentucky. She was recently awarded an SEC Academic Leadership Development Fellowship and was inducted as a Fellow in the American Institute for Medical and Biological Engineering.

Blaine Ferrell, Ph.D.



Dr. Blaine Ferrell earned his Ph.D. in Zoology from Louisiana State University in 1979. He retired from Western Kentucky University (WKU), where he served as Dean of Ogden College of Science and Engineering for ten years and Associate Vice President for research for four years.

Dr. Ferrell was co-principal investigator in the 1999 grant from the Commonwealth to establish the Applied Research and Technology Program of Distinction. The Program engages faculty and students in research that solve industry challenges.

Dr. Ferrell was appointed by the Council on Postsecondary Education (CPE) to the STEM Pipeline Taskforce for Kentucky. He was elected to the Greater Owensboro Economic Development Corporation, Owensboro Bio-Alliance Board of Advisors, and serves on the Board of Advisors for the Central Region Innovation and Commercialization Center, currently as Chair.

Dr. Ferrell served on the Advisory Board for the Kentucky Manufacturing Assistance Center and was principal investigator to establish its replacement as the Advantage Kentucky Alliance Manufacturing Extension Partnership. He has served as President of the Kentucky Academy of Sciences, and he recently represented the Academy in promoting the Next Generation Science Standards for implementation in schools to the Education Commission. He serves on Boards of Advisors for the Kentucky Science and Technology Corporation and has served on the Kentucky Science and Engineering Foundation Advisory Board since 2001. He also serves on the Kentucky Experimental Program to Stimulate Competitive Research Statewide Committee, currently as chair, and was elected to membership on the EPSCoR/ Idea Foundation Board as part of the EPSCoR Coalition.

Dr. Ferrell represented WKU on the Posters-at-the-Capitol steering committee where students presented their research to make Kentucky legislators aware of research being done at Kentucky universities.

Mr. Jere Glover



Mr. Jere Glover is an attorney with Seidman and Associates in Washington, DC, representing small businesses on SBA, SBIR, and False Claims Act-related issues. Jere also serves as the Executive Director of the Small Business Technology Council (SBTC).

Mr. Glover is considered one of the fathers of the SBIR Program. As counsel to the House Small Business Committee, he directed an extensive set of hearings on small business and innovation that laid the ground work for the SBIR in 1978. He was also the lead-off witness before Congress in 1982 when the SBIR was first proposed. He was also on the board of the Telecommunications Development Fund's investment committee and served as counsel to the Senate Small Business and Entrepreneurship Committee in 2001 and work on STTR Reauthorization.

Mr. Glover spent many years in government service, focusing on minimizing the regulatory burden on business. He was the federal government's lead defender of small businesses in the regulatory process for six years. He systematically analyzed regulatory actions by federal agencies, identifying flaws and shortcomings. Information developed by Jere's team led to rollbacks of dozens of regulations. Their work saved the private sector more than \$20 billion in annual regulatory costs across many types of businesses including mining, telecommunications, transportation, fishing, financial services, and agriculture. He has testified before Congress over 30 times and appeared in over 100 agency proceedings, including rulemakings, adjudications, and enforcement proceedings.

Mr. Glover has served as CEO, principal or director of a biotech company, a medical technology company, and a group of medical clinics. He is counsel to a variety of SBIR and technology companies. Mr. Glover obtained his undergraduate and law degrees from the University of Memphis and an L.L.M. in Administrative Law and Economic Regulation from George Washington University.

Mr. Paul Nabih Korkemaz



Mr. Paul Nabih 'Korky' Korkemaz is President of Korkemaz Business Advisors LLC. He has been in the Defense, Space and IT/Analytics government market place for nearly 40 years. His career spans engineering, business development, program management, and operations assignments. He has over 25 years of experience and network building dealing with a variety of Washington DC based federal customer organizations.

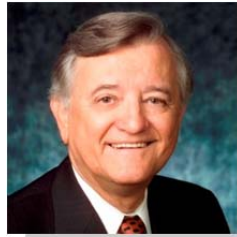
He has had the opportunity to participate in a variety of hardware, services, and R&D technology programs.

Mr. Korkemaz's major career highlights include capturing an avionics role on the NASA Orion human capsule, overseeing support of the 2010 Census Survey, and managing operations of the original Iridium satellite network programs. Since 2014, Mr. Korkemaz has had his own consulting firm assisting aspiring and established Federal contractors grow their business.

Mr. Korkemaz has a B.S. in Aerospace Engineering and an M.S. in Mechanical Engineering from the University of Notre Dame. He and his wife, Jean, live in northern Virginia. Paul enjoys golf and also serves in several northern Virginia Catholic charities.

Mr. Korkemaz has served on the Kentucky Science and Engineering Foundation Advisory Board since 2001.

Charles E. Kupchella, Ph.D.



Dr. Charles E. Kupchella is President Emeritus (1999-2008) of the University of North Dakota. Dr. Kupchella is the author or co-author of more than 50 articles in scientific journals and is the author of several books including: *Sights and Sounds: The Very Special Senses* (Bobbs-Merrill Publishing Co., 1976); *Environmental Science: Living Within the System of Nature* (first through third edition, Prentice-Hall, 1993; and *Dimensions of Cancer* (Wadsworth Publishing Co., 1987), and most recently, *The Tree Shack: A Story about the Foundations of Morality and the Origins of Humankind*, 2014. He expects to finish his newest book later in 2017.

In semi-retirement, Dr. Kupchella continues to teach at Penn State University and St Francis College in PA. He serves as a Senior Consultant for Academic-Search, Inc. He has served as president of the Kentucky Academy of Science, the Kentucky Association for Environmental Education and the American Association for Cancer Education, as well as on the Kentucky Science and Engineering Foundation Advisory Board since 2001.

During his 25 years in Kentucky he also served on the Boards of the Louisville Audubon Society, Strategies for Environmental Control, the Nature Conservancy, the Kentucky Prism Project (1991-1993) and the Kentucky Center for Public Issues (1990-1993). He was the first secretary-treasurer of the Kentucky Science and Technology Council (1988-1993). During his teaching/research career, Dr. Kupchella directed the work of forty-five undergraduate, masters and doctoral students, all in Kentucky.

A native of Nanty Glo, Pennsylvania, Dr. Kupchella received an undergraduate degree in Biology from Indiana University of Pennsylvania and a Ph.D. in physiology and microbiology from St. Bonaventure University where he was a National Defense Education Act Fellow. He has held academic and administrative positions at Louisville's Bellarmine University, the University of Louisville, Murray State University and Western Kentucky University, and Southeast Missouri State University.

Dr. Benjamin K. Malphrus



Dr. Benjamin K. Malphrus is Professor of Space Science at Morehead State University (MSU) and Director of the MSU Space Science Center. He serves as President and CEO of the Kentucky Aerospace Industry Consortium, a non-profit organization promoting aerospace industry in the Commonwealth.

Dr. Malphrus served as project director for a variety of scientific instruments including the 21 meter Space Tracking Antenna operated by the Center. He served on the scientific staff of the National Radio Astronomy Observatory, as visiting scientist at NASA's Wallops Flight Facility, as principal investigator on several nanosatellite missions including KySat-1, KySat-2, the Cosmic X-Ray Background Nanosatellite (CXBN), CXBN-2, TechSat-1, and Lunar IceCube, and in various roles on other microsatellite missions. Five missions have flown in space.

In the late 1990s, he developed a theory of galaxy formation that has gained wide acceptance among the astronomical community. In 1994, 1995, and 1996 Dr. Malphrus was awarded the NASA JOVE research fellowship for research in the structure and kinematics of gravitationally interacting galaxies. This research led to the discovery of the first genuinely young galaxy observed in an interacting field, NGC 5291-B. He served as PI on over \$20 million R&D grant funding leading to the design and opening in 2010 of the \$16 million R&D center for space sciences in KY.

Dr. Malphrus and his team were awarded an \$8.5 million contract by NASA to develop and send a space probe (Lunar IceCube) to the moon to investigate the transport physics of lunar volatiles including water ice. Lunar IceCube will launch in 2018 on the maiden voyage of NASA's newest rocket: the Space Launch System, the largest rocket to be launched in the history of the space program.

Dr. James E. Miller



Dr. James E. Miller was born in LaRue County, Kentucky, the youngest of 13 children born to Charles and Alta Miller. He spent his first 17 years in LaRue County and then attended Western Kentucky University (WKU), obtaining a Bachelor's degree in Mathematics and Physics. Dr. Miller continued his studies at the University of Kentucky (UK) through a teaching fellowship and NASA fellowship, obtaining a Ph.D. in Mathematics/Astrophysics, studying under Dr. Wasley S. Krogdahl.

After teaching Mathematics for two years at Murray State University, he accepted a teaching position at Transylvania University in the Mathematics Department. While at Transylvania, in the late 1960s Dr. Miller pioneered the development of one of the first Computer Science majors in the country, taught Mathematics and Computer Science, and directed the Computer Science Program until the early 1990's. He then chaired the Natural Sciences and Mathematics Program for 10 years. Dr. Miller's influence extended to area high school students as well, directing the Sweet 16 Academic Computer Competition for six years, and developing and directing the Transylvania Science and Technology Camp and the Academic Camp with Computer Emphasis for 25 years. Dr. Miller received numerous honors while teaching at Transylvania, two of which were being named Transylvania's faculty member of the year twice, and receiving the Bingham Award for Excellence in Teaching. He served on more than 20 Southern Association of Colleges and Universities Reaffirmation Visits. He also chaired two reaffirmation visits for Transylvania and co-chaired two others.

As an active member of his community, Dr. Miller co-chaired a committee at Immanuel Baptist Church for 22 years that built a Habitat for Humanity House each year. He was a member of the Administrative Board at Central Baptist Hospital for 21 years, and is currently a member of the Foundation Board at Baptist Health in Lexington. He also is currently, and has been for 15 years, a member of the Kentucky Science and Engineering Foundation Advisory Board. Dr. Miller received six summer consultantships through Battelle Labs at Frankfort Arsenal in Philadelphia and at Aberdeen Proving Grounds in Aberdeen, Maryland. He is a published author, having authored several scientific papers and three books. Dr. Miller is married to Betty (Ruble) and they have three daughters: Dr. Karen Blumenschein (Dr. Tom Curry), Dr. Kim Rolph (Dr. Charles Rolph), Mrs. Kelley Alford (Mr. Steve Alford), and six grandchildren. Dr. Miller currently serves as Professor Emeritus of Mathematics and Computer Science at Transylvania University.

Mr. Rick Shindell



Mr. Rick Shindell, President of Zyn Systems, is a long-time SBIR advocate supporting small businesses, federal agencies, state outreach organizations, intermediaries, and advocacy groups. Rick has been a major resource for the SBIR and STTR Programs and served as a consultant and proposal reviewer for many agencies including the Navy, SBA, NSF, EPA, NIST, and DoD. He was a contributing author for the SBIR portion of the post-

doc book "Research Administration and Management" (Jones and Bartlett Publishers, Inc.).

Mr. Shindell is perhaps best known for his hard hitting "SBIR Insider" newsletter which provides the SBIR community with news and critical information about the SBIR Program, proposed legislation, success, failures, and controversies. The SBIR Insider is read by thousands including small businesses, state intermediaries and providers, federal program managers, and many congressional staffers. Besides being the editor of the SBIR Insider newsletter, Mr. Shindell was the host of the SBIR Gateway website serving the SBIR community.

Mr. Shindell has been serving the Federal Laboratories Consortium for Technology Transfer (FLC) in variety ways. He manages the support for the FLC Far West and Mid-Continent regional networks, working with more than 100 of the nation's premier federal laboratories.

Mr. Shindell received a Tibbetts Award for excellence in SBIR in 2006, and in 2012 a Lifetime Achievement Award for SBIR Advocacy from the National Small Business Association (NSBA) and the Small Business Technology Council (SBTC). At the 2016 Tibbetts Award and Hall of Fame Ceremony, the Small Business Administration (SBA) honored Mr. Shindell with a Lifetime Achievement Award for his "extraordinary contribution to the SBIR Program"

Mahendra Kumar Sunkara, Ph.D.



Dr. Mahendra Kumar Sunkara is Director of the Conn Center for Renewable Engineering Research, Professor of Chemical Engineering and Distinguished University Scholar at University of Louisville (UofL). Dr. Sunkara received his B. Tech. degree in Chemical Engineering from Andhra University (India) in 1986, M.S. in Chemical Engineering from Clarkson University in 1988, and Ph.D. and Case Western Reserve. He worked at Faraday

Technology, Inc. in Dayton, OH, from 1993-1996 as a Project Engineer before joining UofL as an Assistant Professor in 1996.

Dr. Sunkara's personal research interests include solar cells, Li Ion batteries, production of hydrogen from water and process development for growing large crystals of diamond, gallium nitride and bulk quantities of nanowires. He has published over 130 articles in refereed journals, four book chapters, and was awarded over 15 U.S. patents. He co-authored a book entitled *Inorganic Nanowires: Applications, Properties and Characterization* published by CRC Press. Dr. Sunkara was awarded the Ralph E. Powe Junior Faculty in Engineering award in 1999 and a NSF CAREER award in 1999. In 2002, the Louisville Magazine placed him in the list of top 25 young guns in the city of Louisville. In 2009, he received the UofL President's distinguished faculty award for research and United Phosphorus CDS Award from the Indian Institute of Chemical Engineers in 2009.

As of February 2017, his research work was cited about 6,800 times with an h-index of 39 and is one of the highly cited at University of Louisville. His work resulted in over 20 US patents. He founded Advanced Energy Materials, LLC (AdEM) to commercialize his technology on scalable manufacturing of nanowire based materials for catalysts, batteries and absorbents. He founded two other companies prior to AdEM: one was an IT training and consulting company (Indacle Software, Inc) and the other was a lead-acid battery manufacturing in India (Chemener Batteries). Dr. Sunkara has graduated over 40 M.Eng. and Ph.D. students who found successful careers in academia as faculty and in Industry such as Intel, Applied Materials, and Lexmark.

Stacy S. Wilson, Ph.D.



Dr. Stacy S. Wilson is the Chair of the Western Kentucky University Department of Engineering and is Professor in the Electrical Engineering Program. She earned her Ph.D. from Tennessee Technological University with an emphasis on control systems and system identification.

While a member of the Western Kentucky University (WKU) faculty, Dr. Wilson held several leadership positions including Founding Director of the Engineering-Manufacturing-Commercialization Center (EMCC). She worked with the Center personnel to create the center, establish operating procedures, and solicit external funding and projects. Prior to the formation of the EMCC, Dr. Wilson was actively involved with the research and projects at the WKU Applied Physics Institute and Cyber Defense Laboratory. She has participated in multiple grants and several commercialization projects with faculty and staff from a variety of disciplines.

Dr. Wilson is a Professional Engineer in the Commonwealth of Kentucky and is a senior member of Institute of Electrical and Electronics Engineers (IEEE). She was a Coleman Fellow through the WKU Center for Entrepreneurship and Innovation and won the WKU University Public Service Award Winner in 2005. Dr. Wilson is the chair of the WKU Intellectual Property Committee. She also is a Program Evaluator for the Engineering Accreditation Commission for the Accreditation Board for Engineering and Technology.



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