NARAYAN EARNS MAJOR N.C. HONORS

Jay Narayan, John C.C. Fan Family Distinguished Chair Professor of Materials Science and Engineering at NC State, has been awarded the 2014 North Carolina Award in Science.

The North Carolina Award is the highest civilian honor bestowed by the state of North Carolina. Past winners have included Maya Angelou, Charlie Rose, John Hope Franklin, Charles Kuralt and four Nobel laureates. Walt Wolfram, the William C. Friday Distinguished Professor of English at NC State, received the North Carolina Award in Public Service last year.

Narayan is also the 2014 recipient of the O. Max Gardner Award — the most significant honor given to faculty by the University of North Carolina Board of Governors.

The Gardner award is presented each year to a faculty member from one of the system’s 17 campuses who is recognized as having “made the greatest contribution to the welfare of the human race.” Narayan is the 29th faculty member from NC State to win the O. Max Gardner Award since its inception in 1949.

Narayan has made groundbreaking contributions to the field of materials science, most notably in domain matching epitaxy, a method of combining nanomaterials that reduces defects in the semiconductor materials that affect LED efficiency. This work led in turn to the development of high-efficiency LEDs that will save energy, reduce greenhouse emissions and contribute to our nation’s energy independence. He holds 40 U.S. patents and has published nine books and more than 500 papers in scholarly journals, which have more than 20,000 citations.

DESIMONE ELECTED TO INSTITUTE

Joseph DeSimone, an interdisciplinary researcher on faculty at NC State and the University of North Carolina at Chapel Hill, has been elected to the Institute of Medicine, one of the highest honors in the fields of health and medicine a U.S. scientist can receive.

Elected in 2008 as an inaugural fellow of the Materials Research Society, Narayan is also a life member and fellow of the Materials Society, a fellow of the American Association for the Advancement of Science and a life member and fellow of the American Physical Society.

His election to Institute of Medicine represents the third time DeSimone has been named a member of a U.S. National Academy. He was elected to the National Academy of Engineering in 2005 and the National Academy of Sciences in 2012. Fewer than 20 people in history have achieved election to all three U.S. National Academies.

DeSimone is the first professor in the state of North Carolina to be named to all three U.S. National Academies. “It is humbling to join such an elite group,” DeSimone said. “This is a tribute to my students at UNC-Chapel Hill and NC State whose research at the intersection of diverse fields enables us, as a team, to create significant impact in and beyond medicine.”

With dual titles of William R. Kenan, Jr. Distinguished Professor of Chemical and Biomolecular Engineering at NC State and Chancellor’s Eminent Professor of Chemistry at UNC-CH, DeSimone is known for his ability to apply insights in materials science to create advances in medicine, as well as other fields.

Currently, DeSimone is on sabbatical leave to lead his new company, Carbon3D, in Silicon Valley. Carbon3D is developing a new 3-D printing technology invented by DeSimone and colleagues, which can fabricate objects significantly faster than current state-of-the-art 3-D printers.

RHETORIC RESEARCH PIONEER HONORED

In 1984, Carolyn Miller spent months working on a journal article based on her dissertation in communication and rhetoric. Her article, titled “Genre as Social Action,” was published in the Quarterly Journal of Speech. Thirty years
Franzon’s current interests focus on the technology and design of complex microsystems incorporating very-large-scale integration, microelectromechanical systems, advanced packaging and nanoelectronics. He has published more than 300 papers in these areas. In 1993, he received a National Science Foundation Young Investigators Award; in 2001 he was selected to join the NC State Academy of Outstanding Teachers; in 2005 he received the Alcoa Research Award; and in 2014 he received the Board of Governors Teaching Award. Franzon is a Fellow of the IEEE.

OTT also named Kenneth B. Adler, a cell biology expert in the Department of Molecular Biomedical Sciences, as the 2014 Dr. John S. Risley Entrepreneur of the Year.

Adler has published more than 150 papers, mostly on airway inflammation and mucus secretion, and more lately on lung injury and lung cancer. In 1998, he was named Alumni Distinguished Graduate Professor at NC State. He has received numerous awards, including an Established Investigator Award from the American Heart Association in 1987; NC State’s Alexander Quarles Holladay Medal for Excellence, the highest award made by the university in recognition of faculty career accomplishments, in 2004; and the O. Max Gardner Award from the University of North Carolina Board of Governors in 2005.

later, Miller’s hard work has paid off handsomely. Her article has long been the journal’s most frequently cited article, and it provided the catalyst for the development of a whole new academic field: rhetorical genre studies.

Miller is now the SAS Institute Distinguished Professor of Rhetoric and Technical Communication in NC State’s Department of English. In honor of the 30th anniversary of her article’s publication, the journal Composition Forum dedicated its November 2014 issue to articles about rhetorical genre studies and the impact of Miller’s work.

“Genre” refers to the categories that we slot communications into, based on the patterns they demonstrate. For instance, a fictional narrative that doesn’t take long to read from start to finish would generally be called a short story; a book-length piece of fiction is a novel. For scholars, however, the difficulty with genres is how to define them. It’s easy to rattle off a list of genres, but what really constitutes a genre?

The problem is particularly acute in the field of rhetoric, which is the study of how we influence each other through communication. Rhetoricians have come up with many schemes for defining genres, but they all overlap or contradict each other in some way.

Miller got the idea to write her groundbreaking article when she realized that none of the rhetoricians’ definitions of genre were based on the communicative act itself. Her essential insight is that genres don’t exist in some list or scheme; they’re created through shared, repeated social actions. Genres are social actions, which means that old genres die, and new ones come into being, all the time. Miller’s article was the first theoretically based statement of that principle within the field of rhetoric.

Since then the ideas in her article have spread throughout academia, to fields including linguistics, education, anthropology and sociology; and in popular culture, popping up in discussions about literature, music and even technology.

OTT CITES INNOVATOR AND ENTREPRENEUR

Paul Franzon, Distinguished Alumni Professor of Electrical and Computer Engineering, was named 2014 Innovator of the Year by NC State’s Office of Technology Transfer (OTT). He has also worked at AT&T Bell Laboratories, DSTO Australia, Australia Telecom and three companies he co-founded: Communica, LightSpin Technologies and Polymer Braille.

Franzon’s current interests focus on the technology and design of complex microsystems incorporating very-large-scale integration, microelectromechanical systems, advanced packaging and nanoelectronics. He has published more than 300 papers in these areas. In 1993, he received a National Science Foundation Young Investigators Award; in 2001 he was selected to join the NC State Academy of Outstanding Teachers; in 2005 he received the Alcoa Research Award; and in 2014 he received the Board of Governors Teaching Award. Franzon is a Fellow of the IEEE.

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**TWO HONORED AS ‘WOMEN IN BUSINESS’**

NC State is well represented among the 2014 winners of the Women in Business Award, announced by the Triangle Business Journal. Anita Brown-Graham, director of the Institute for Emerging Issues, and Terri L. Lomax, vice chancellor for research, innovation and economic development, are among 26 area women honored for their accomplishments in business and community service.

“These winners are putting accomplished leadership to work in their professions, challenging any lingering gender gap,” says publisher Bryan Hamilton.

Brown-Graham joined IEI as director in January 2007. She previously worked at UNC-Chapel Hill’s Institute of Government, training communities in strategic planning to revitalize distressed rural economies. She is a William C. Friday Fellow, an American Marshall Fellow and an Eisenhower Fellow.

Lomax joined NC State in 2006 as dean of the Graduate School and associate vice chancellor for research. She was named vice chancellor after serving as interim vice chancellor from 2008 to 2009. Before arriving at NC State, Lomax was on assignment from Oregon State University to NASA Headquarters in Washington, D.C., where she served as division director of the Fundamental Space Biology programs, acting deputy associate administrator for research in the Exploration Systems Mission Directorate, senior policy analyst for the NASA Office of Program Analysis and Evaluation and senior education advisor to NASA’s Office of Education. She was on faculty at Oregon State from 1987 to 2006.

Among her honors and accomplishments, Lomax has been named a Fulbright Fellow, Carnegie Fellow, National Science Foundation Postdoctoral Fellow and Monsanto Research Fellow.

**MBA TEAM BEST IN BRANDING**

A team of MBA students from NC State took first place in a contest to rebrand the state of North Carolina. The competition, sponsored by the state’s Department of Commerce and the Frank Hawkins Kenan Institute of Private Enterprise, challenged college students to “capture and document what makes North Carolina, North Carolina.”

NC State’s winning team, the Cardinal Marketing Group, included Annie Bishop, Christie Montague, Meagan Sams and Lauren Wright. They beat more than 100 other teams to nab the contest’s $5,000 prize.

The team’s full-scale marketing campaign proposed that the state adopt the slogan “Chart Your Own Course.” It recommended the use of digital channels, including a mobile app, to drive messaging.

“Our brand campaign shines a light on what North Carolina stands for: opportunity, innovation, excellence, variety, beauty and fun,” Wright says.

Cardinal Marketing Group was one of three NC State teams competing in the finals. Most students competing on behalf of NC State were veterans of the Consumer Innovation Practicum, a hands-on graduate marketing course taught through the Consumer Innovation Consortium in the Poole College of Management. They work with faculty advisers and partner companies on custom-designed research projects aimed at answering marketing and consumer behavior question posed by client companies AmerisourceBergen, Bayer CropScience, Burt’s Bees and Cotton Incorporated.

**ALLIANCE HONORS DANCE DIRECTOR**

When Robin Harris opened the email notifying her that she was being honored for her lifetime contributions to North Carolina dance, her first thought was, “Wow; have I lived a lifetime already? I’ve got so much more to do!”

Director of the NC State Dance Program, Harris was selected to receive the 2014 Annual Award from the North Carolina Dance Alliance, one of the most prestigious arts awards in the state.

In addition to directing the dance program, Harris is artistic director of the NCSU Dance Company. She has choreographed more than 30 major works and has received two North Carolina Arts Council fellowships, the Raleigh Medal of Arts and an Indy Award from Indy Week, among other honors and awards.

The NC State Dance Program occupies an unusual place within the university because NC State has no dance major.

“Our students are getting degrees in everything that NC State has to offer,” Harris says. “A lot of them could have gone into dance, but they also happen to be engineers or mathematicians or textiles majors.”

So why would an engineer take a dance class or join a dance company? “Because, for them, dance supports who they are in the world,” she says.

“They’re engineers, but they’re also dance artists, and they need their art form to express themselves fully, to organize their perspectives on the world around them and be a whole human being.”

The university may not have a dance major, but that doesn’t stop the dance program from emphasizing the centrality of art in everything it does.

“The art is the core of what we teach,” Harris says. “And the value of that method has been proven time and time again in terms of regional and national recognition.”