

## SUMMARY

### New Appointments to Endowed Chairs, Professorships, or Fellowships (5)

November 5, 2018

#### **College of Engineering (3)**

Charles Clancy	Bradley Professor in Cybersecurity
Wayne Scales	J. Byron Maupin Professor of Engineering
Changmin Son	Rolls Royce Commonwealth Professor

#### **College of Liberal Arts and Human Sciences (1)**

Kelly Avery	Property Management Advisory Board Professorship in Honor of Dr. Rosemary C. Goss
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#### **College of Veterinary Medicine(1)**

Robert S. Pleasant	C. R. Roberts Professorship of Clinical Veterinary Medicine
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**ENDOWED PROFESSORSHIP**  
**The Bradley Professor of Cybersecurity**

Dr. Julia Ross, Dean of the College of Engineering, nominates Dr. T. Charles Clancy to hold the Bradley Professor of Cybersecurity. The nomination is likewise recommended by the Bradley Department of Electrical and Computer Engineering (ECE) Honorifics Committee as well as by the ECE Department Head, Dr. Luke Lester. Dr. Clancy is eminently qualified because of his pioneering research accomplishments in the fields of communications security, cognitive radio, and cryptographic authentication, and broader impact to the university's growth of programs in cybersecurity.

Dr. Clancy received his Ph.D. in Computer Science at the University of Maryland in 2006, joined Virginia Tech in 2010 as the Associate Director of the Hume Center for National Security and Technology, became an Associate Professor in the Bradley Department of Electrical and Computer Engineering in 2011, and became the director of the Hume Center that same year. He was promoted to professor in 2017.

Since joining Virginia Tech in 2010, Dr. Clancy launched and has built the Hume Center for National Security and Technology into a university-level institute with 35 academic faculty, 40 research faculty, and 10 staff engaging over 400 students each year in \$10M to \$15M in annual research expenditures. He has also served as the leading force behind the Integrated Security Destination Area and the Commonwealth Cyber Initiative, which have the opportunity to further accelerate Virginia Tech security-related programs.

Dr. Clancy has a long and consistent record of research funding and impact. Over the past 20 years he has made major contributions to wireless authentication, software-defined and cognitive radio security, 4G/LTE security, and currently 5G/IoT security. He has served as PI or Co-PI on \$52M in successful externally-funded projects, and has launched four university spin-out companies that have raised over \$120M in venture capital. The Hume Center and these companies collectively employ over 200 full-time people in Virginia, contributing \$50M/year in primary and secondary economic impact to the commonwealth.

Dr. Clancy has supervised and graduated 12 doctoral and 25 masters students and has trained and hosted three postdoctoral fellows that have each gone on to tenure-track positions in academia. He has authored and coauthored 63 publications in refereed journals, and 144 papers in refereed conferences. He is currently supervising eight doctoral and three master's students. He also holds 10 issued US utility patents. Dr. Clancy's research work is highly cited with the Google Scholar citations of 6,700+ and h-index of 42. He received the Virginia Tech Dean's Award for Excellence in Research in 2014.

Dr. Clancy has also had a track-record of impact in standards bodies and professional societies over his career. He has chaired and served as security advisor to several working groups in the Internet Engineering Task Force, and is co-author to six published Internet Standards (RFCs). He currently serves on the steering group for the WInnForum Spectrum Sharing Committee, developing standards for use of 3.5 GHz spectrum, and

chaired the security working group that negotiated a partnership between the U.S. Department of Defense and wireless industry for how to securely access this Navy radar spectrum. He has previously served on the editorial boards of Institute of Electrical and Electronics Engineers (IEEE) Transactions on Cognitive Communications and Networking and IEEE Transactions on Information Forensics and Security. He is serving as general chair for IEEE International Conference on Communications and Network Security, the flagship security conference for the IEEE Communications Society, to be held in Washington DC in June 2019.

His expertise in wireless security has also led to regular contributions in the media and he has been invited to testify at hearings on Capitol Hill three times since 2017 on the topics of 4G/5G security, rogue cell towers, and telecommunications supply chain security. He serves as a key advisor to CTIA, the primary industry group for the US wireless sector, as they engage with the FCC and other stakeholders on cybersecurity regulation.

**RECOMMENDATION:**

That Dr. T. Charles Clancy be appointed the Bradley Professor of Cybersecurity, effective November 10, 2018 for a renewable term of 5 years, with a salary supplement as provided by the endowment and, if available, with funds from the eminent scholars match program.

November 5, 2018

**ENDOWED PROFESSORSHIP**  
**J. Byron Maupin Professorship of Engineering**

The J. Byron Maupin Professorship was established by Mrs. Marjorie Maupin and LeRoy M. Sizemore in 1991 to honor the memory of J. Byron Maupin, a member of the class of 1934. In concurrence with the recommendation of the College of Engineering Honorifics Committee, Dean Julia Ross nominates Dr. Wayne A. Scales to hold this professorship. Dr. Scales is eminently qualified because of his pioneering research accomplishments in the fields of ionospheric physics and plasma simulation.

Dr. Scales received his Ph.D. in Electrical Engineering at Cornell University in 1989. He joined the faculty of Virginia Tech in 1992 as an assistant professor in the Bradley Department of Electrical and Computer Engineering. He became an associate professor in 1998, a professor in 2006, and the founding director of the Center for Space Science and Engineering Research in 2007. He has also served as the co-director of the Interdisciplinary Graduate Education Program in Remote Sensing since 2012 and an affiliate professor of aerospace and ocean engineering.

Dr. Scales has a long and consistent record of research excellence. His major contribution is the development of state-of-the-art plasma physics-based models for active space experiments and dusty space plasmas. His recent research focuses on development of dusty space plasma diagnostics using high power radio waves, development of ionospheric diagnostics using stimulated electromagnetic emissions and Global Navigation Satellite System (GNSS) beacons, development of ionospheric and magnetospheric space plasma turbulence models, and development of a GNSS spacecraft formation flying testbed for ionospheric remote sensing applications. He has been PI or co-PI of more than 20 projects with personal responsibility for approximately \$3M.

Dr. Scales has supervised 17 Ph.D. and 10 master's students and has trained and hosted four postdoctoral fellows and international visiting scholars since he joined Virginia Tech in 1992. He has authored and coauthored 85 publications in refereed journals, and 15 papers in refereed conferences accepted on the basis of a full paper review. He is currently supervising five Ph.D. students.

Dr. Scales' research work is impactful and has been featured in prestigious venues such as Reports on Progress in Physics, Physical Review Letters, and Geophysical Research Letters. He has received numerous accolades and honors including the College of Engineering Dean's Award for Exemplary Research, the Dean's Award for Exemplary Service, the American Geophysical Union Editor's Citation for Excellence in Refereeing, and the American Society for Engineering Education (ASEE) Postdoctoral Fellowship as well as a number of citations for teaching excellence.

Dr. Scales is very active in professional societies. He has served as Guest Editor for Institute of Electrical and Electronics Engineers (IEEE) Transactions on Plasma Science and Journal of Atmospheric Solar Terrestrial Physics, and associate editor for Advances in Space Research and Radiation Effects and Defects in Solids. He served as co-chair of

the International Workshop on the Physics of Dusty Plasmas and Chairman of the Committee on Space Research (COSPAR) commission on Active Experiments and Dusty Space Plasmas. He has also served on the Committee of Visitors of the National Astronomy and Ionospheric Center and member-at-large of the URSI United States National Committee. He has delivered numerous invited talks at international conferences, academic institutions, and national laboratories.

### **RECOMMENDATION**

That Dr. Wayne A. Scales be appointed the J. Myron Maupin Professor of Engineering, effective November 10, 2018, for a renewable term of 5 years, with a salary supplement provided by the endowment and, if available, with funds from the eminent scholars match program.

November 5, 2018

**ENDOWED PROFESSORSHIP**  
**Rolls-Royce Commonwealth Professorship**

Julia M. Ross, Dean of the College of Engineering and the Paul and Dorothea Torgersen Chair of Engineering, nominates Dr. Changmin Son as the Rolls-Royce Commonwealth Professor. The professorship enables Virginia Tech faculty to generate new research in the field of enhanced performance on aircraft engine systems.

Dr. Son has excelled at scholarship, teaching, service, and outreach during his career from his time as a Research Assistant at Oxford University, to his work as the Vice President and acting Regional Director of Rolls-Royce in the South Korea Regional office, to his latest academic service as a professor of mechanical engineering at Pusan National University in South Korea. Through his innovative teaching methods making use of interactive classroom instruction technologies combined with hands on learning experiences, he has impacted hundreds of mechanical engineering students.

Dr. Son has excelled in the field of performance enhancement of jet engines. He has obtained external grants worth more than \$27M, including more than \$5M as the principal investigator.

Dr. Son has maintained an excellent record of service, being an Associate Editor of the Proceedings of Institute of Mechanical Engineers, Part C; Journal of Mechanical Engineering Science, 2015; a technology advisor to Doosan Heavy Industry & Construction, since 2015; a member of the Technology Advisory Board, LG Fuel Cell Systems, from 2013-2015; an Overseas Advisory Board member for the Korea Institute of Machinery and Materials, from 2010-2011; and a member of the Heat Transfer Committee – International Gas Turbine Institute, ASME, since 2006.

Dr. Son has also established himself as a researcher of international distinction, with 15 current granted patents and 19 more patents currently in-application. In 2009, Dr. Son received the Rolls-Royce, Sir Henry Royce Award for Technical Innovation, High Value Patent Award for Air Impingement Cooling System, (US Patent No. 6688110.)

**RECOMMENDATION:**

That Dr. Son be appointed to the Rolls-Royce Commonwealth Professorship for a renewable period of 5 years, effective January 10, 2019, with a salary supplement and operating budget as provided by the endowment and, if available, with funds from the eminent scholars match program.

November 5, 2018

**ENDOWED PROFESSORSHIP**  
**Property Management Advisory Board Professorship**  
**in Honor of Dr. Rosemary C. Goss**

The Residential Property Management Advisory Board Professorship was established in 1995 with gifts to the Virginia Tech Foundation given by members of the Residential Property Management Advisory Board. The members of the board, each of whom is a representative from the property management industry, made personal contributions to establish the professorship, and in 2018, they voted to change the name of the professorship to the Property Management Advisory Board Professorship in Honor of Dr. Rosemary C. Goss, who retired that year. Dr. Goss established the Property Management Program in 1986 and served as an educator and advisor to more than 500 undergraduate students during her 41 years as a Virginia Tech faculty member. The graduates of this program are in great demand by employers of firms represented on the advisory board and throughout the industry. Based on a recommendation from the Department of Apparel, Housing, and Resource Management and after review by the honors and awards committee of the College of Liberal Arts and Human Sciences, Dean Rosemary Blieszner has recommended the appointment of Kelly Avery as the Property Management Advisory Board Professor in Honor of Dr. Rosemary C. Goss.

Ms. Avery, associate professor of practice in the Department of Apparel, Housing, and Resource Management, received her Master of Public Administration degree from the University of Kentucky. She has worked in the field of property management for 13 years. She started her career in public housing in 2005 as a property manager with HUD in Carbondale, IL, while working concurrently as an Instructor at the Southern Illinois University Carbondale. In 2007, she moved to the private sector with Dranoff Properties in the Philadelphia and southern New Jersey market.

In 2011, Ms. Avery joined AIMCO in New York City. Her roles included community manager, director of leasing and sales for the New York City market and eventually she led operations for an 800-unit, multi-site portfolio as general manager. Ms. Avery worked from 2015 until 2018 for New York City based Reality Operations Group, where she was leading operations for various assets with an overall 1,700-unit portfolio in Lower Manhattan. Her experience is extensive and diverse – including different regional markets, company cultures, and market segments, as well as broad multifunctional experience in operations, vendor management, and leasing.

As associate professor of practice in the Property Management Program, Ms. Avery brings this experience to the classroom and works with students through advising. She also engages with industry through the program's internship program and career guidance.

**RECOMMENDATION:**

That Kelly Avery be appointed the Property Management Advisory Board Professor in Honor of Dr. Rosemary C. Goss, for a five-year renewable term effective August 10, 2018, with a salary supplement as provided by the endowment and, if available, with funds from the eminent scholars match program.

November 5, 2018

**RESOLUTION FOR ENDOWED PROFESSORSHIP**  
**C. R. Roberts Professorship of Clinical Veterinary Medicine**

The C. R. Roberts Professorship of Clinical Veterinary Medicine was established in 2002 with a gift to the Virginia Tech Foundation from Dr. Kent C. Roberts, DVM and the Roberts Family Ltd. Partnership. Dr. C.R. Roberts was one of the first and among the top ranked veterinarians in corporate America, and throughout his long and distinguished career and even during his retirement, he was an enthusiastic participant and advocate of veterinary medicine. In order to recognize the pioneering career of Dr. C. R. Roberts, his family created this endowment to provide opportunities for other pioneering efforts in veterinary medicine and to recognize excellence in clinical veterinary medicine; and

Dr. Robert S. Pleasant joined the Virginia Maryland College of Veterinary Medicine (VMCVM) in 1991 after completing a residency in large animal surgery. He was hired into a faculty appointment as an assistant professor and since that time has been promoted to professor with tenure. He is one of the rare faculty members who has been able to excel in all mission areas of a land-grant university: service, teaching, research and outreach;

Dr. Pleasant's clinical and research interests include equine lameness, nutrition and podiatry. He has authored or co-authored over 75 manuscripts, abstracts, and book chapters. He teaches undergraduate and professional students, and has been recognized for his extraordinary instruction of students by receiving the National Teaching Excellence Award – Clinical Sciences, from the American Veterinary Medical Association

Dr. Pleasant exemplifies the definition of pioneering by establishing the Equine Podiatry service at the VMCVM. In just seven years, this program has grown to include an internship program, Advanced Farrier Certification Program, and a podiatry rotation for DVM students, all of which were established and made successful under his leadership. The Equine Podiatry Service delivers unmatched service to regional horse owners and their farriers and has achieved international recognition.

Dr. Pleasant is an exceptional clinician, in large part because of his obvious desire to advance the science of equine surgery and podiatry so as to improve the health and longevity of horses.

**RECOMMENDATION:**

That Dr. Robert S. Pleasant be appointed the C. R. Roberts Professor of Clinical Veterinary Medicine effective November 10, 2018 with a salary supplement as provided by the endowment and, if available, with funds from the eminent scholars match program.

November 5, 2018