

## JULY 2011 PATENT APPLICATIONS

**Virginia Tech Intellectual Properties, Inc. (VTIP) applied for patents for six inventions in July.**

*Research on two of the intellectual properties was supported by the Center for Power Electronics Systems (CPES) Intellectual Property Protection Fund.* VTIP is seeking utility patents for "The Use of PLL Stability for Islanding Detection," developed by Timothy Thacker, 2009 Ph.D. graduate in electrical engineering now at VPT Energy Systems as the chief engineer for research and product development.; Dushan Boroyevich, American Electric Power Professor of electrical and computer engineering (ECE); and Fred Wang, associate professor of power electronic systems; and "Pulse Width Modulated Resonant Power Conversion," by Khai Doan The Ngo, ECE professor; Xiao Cao, 2011 Ph.D. graduate in electrical engineering; and Yin Wang, a CPES graduate student.

*Research on one of the inventions was supported by the Institute for Critical Technology and Applied Science.* VTIP is seeking a provisional patent for "Tissue Electroporation Application Delivery Devices," developed by Robert E. Neal, Ph.D. student; Paulo A. Garcia, postdoctoral associate; Michael B. Sano, Ph.D. student, all of the Virginia Tech - Wake Forest School of Biomedical Engineering and Sciences (SBES), John H. Rossmeisl, associate professor neurology and neurosurgery in the Virginia-Maryland Regional College of Veterinary Medicine; and Rafael V. Davalos, SBES assistant professor.

*A utility patent is also sought for "Adaptive On-Time Control for Power Factor Correction Stage Light Load Efficiency,"* by Qian Li, CPES student; Fred C. Lee, University Distinguished Professor and CPES director; Ming Xu, CPES associate professor; and Chuanyun Wang, 2009 Ph.D. graduate in electrical engineering, now the deputy director of the Generation Technology Center at FSP-Powerland Technology in Nanjing, China.

*Provisional patents are also being sought for the following:*

"Program and Erase Operations of a Floating Electrode Bi-Resistive Device Using Compliance Current Constraint," by Marius Orlowski, Virginia Microelectronics Consortium Chair and Professor, and Yuhong Kang, Ph.D. student in electrical engineering.

"Optimization of the Multiplicative Exponent in Multiple Line-of-Sight Tomographic Reconstruction," by Roderick La Foy, Ph.D. student; Pavlos Vlachos, professor; and John Charonko, research assistant professor, all in mechanical engineering.

*VTIP PURSUES INNOVATIVE STRATEGIES to help translate scientific progress into tangible products. VTIP facilitates the licensing of technology to companies, encourages new faculty startup ventures, works with publishers and distributors of software, and supports the transfer of research and knowledge to other universities, research institutes, and companies.*

**For more information about VTIP, visit [www.vtip.org](http://www.vtip.org).**