



**The Southwestern Virginia Technology Council**

*presents*

**The Second Annual  
Energy Technology Summit**



**Fusion Energy**

**Coal Fly Ash Utilization**

**Wind Power**

**Bio Fuels**

**Natural Gas**

**Mountain Top Removal**

**Electric Cars**

**Gubernatorial Forum**

**Free CLE Course**

**April 27, 2009**

**The University of Virginia's  
College at Wise**



## SOUTHWESTERN VIRGINIA TECHNOLOGY COUNCIL

[www.swvtc.org](http://www.swvtc.org)

Organized in 1999, the Southwestern Virginia Technology Council has a mission to lead Southwestern Virginians in addressing technology issues for business, education and government with the purpose of enhancing the vitality and social well-being of southwestern Virginia. Council membership includes businesses, institutions and individuals from the Wytheville region to the far western corner of Virginia.

By engaging individuals and entities through membership on the Council, this organization:

- Networks ideas and solutions among our membership to address the issues, opportunities, and challenges of technology.
- Serves as technology advocate to local, state and national government agencies to promote and facilitate the development and growth of technology in our region.
- Works with other organizations to foster coordinated technology development programs in the areas of education, commerce and economic development.
- Meets the challenges and maximizes the opportunities that arise with technological implementation and advancement.

*If you are interested in learning more about the Southwestern Virginia Technology Council please contact:*

Esther W. Bolling, Executive Director  
276-679-7800  
[ebolling@swvtc.info](mailto:ebolling@swvtc.info)

### Southwestern Virginia Technology Council

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UVa-Wise, Wise, VA

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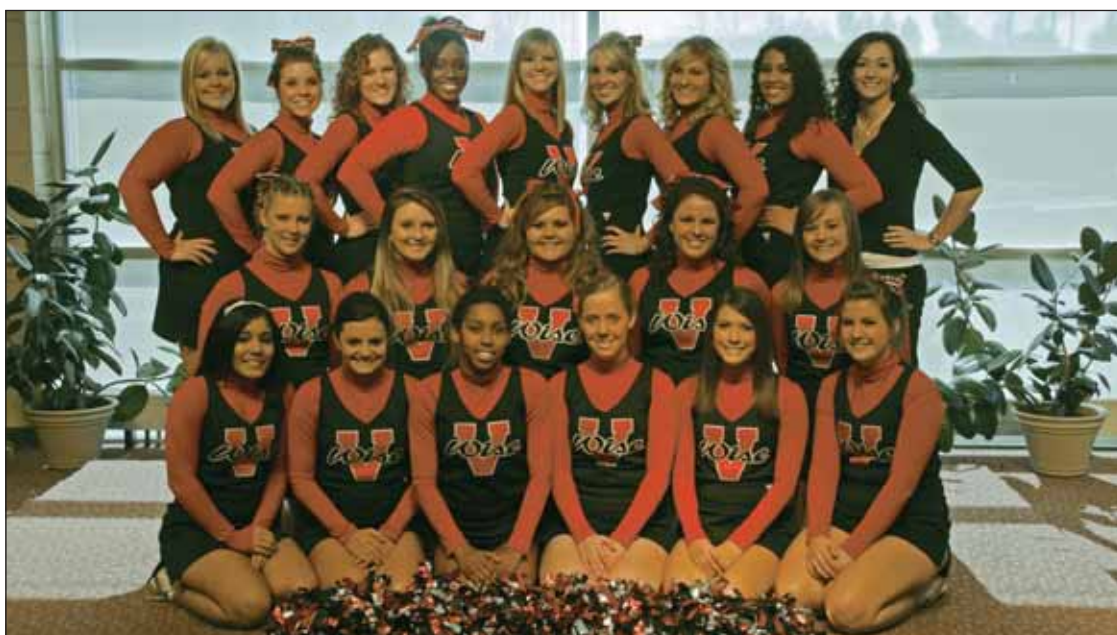
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**Richard Settle, Director**  
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New Peoples Bank, Honaker, VA

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Northrop Grumman, Lebanon, VA

**Sam Wolford, Director**  
Tazewell County, Tazewell, VA



### UVA-WISE CHEERLEADERS

The UVA-Wise Cheerleaders will be assisting with the auto show and encouraging people to look at the new retrofitted natural gas or electric cars in uniform during lunch and while the music is playing.

*First Row:* Bianca Campbell, Kayla Tignor, Alicia Richards, Julie Shortt, Kendra Miller, Kristina Bolling

*Middle:* Tiffany Harris, Heather Beglet, Shannes Johnson, Jessica Campbell, Jamie Thacker

*Back:* Danielle Hopkins, Sarah Bentley, Kandace Kilgore, Candra Patterson, Kasi Hubbard, Kara Collins, Dezarah Jessee, Aceshia Wampler, Chelsie Lawson (coach)

*We would like to thank the UVA-Wise Cheerleaders for participating in the 2009 Second Annual Energy Technology Summit.*

## APPALACHIA AMERICA ENERGY RESEARCH CENTER—ADVANCED ENERGY RESEARCH LABORATORY

The Center, comprising 24,000 square feet of space, will be constructed and situated on a sixteen-acre site in the Lonesome Pine Regional Business and Technology Park. It will support nanotechnology research and development related to coal gasification/liquification as well as sulfur and mercury reductions and the efficiencies of existing and new energy sources. Nanotechnology is an interdisciplinary and emerging technology in which billions of dollars of public and private investment have occurred worldwide. Nanotechnology refers to the fields of science concerned with the deliberate and controlled manufacturing of nanostructures. Analysts predict that nanotechnology will be a \$1 trillion market by 2015, with an estimated 900,000 nanotechnology workers in the United States alone.

The applications of this technology range into the disciplines of functional nanomaterials, carbonaceous nanomaterials, and nanobiomedicine. It is here that we encounter the promise of infinitesimal machines that may someday provide for the precisely targeted delivery of drugs, diagnose disease, or perform surgery. Nanotechnologies also currently provide advantages, affording the ability to manipulate materials and agents at the molecular level and allows for a more effectively control of their characteristics. Chemical reactions can be controlled more completely and stronger and more efficient catalysts can be developed. This provides enormous applications in the development of products ranging from functional coatings to fuel cells. Most importantly, for southwest Virginia, it has a connection to coal.



Coal has long been considered to be an economical fuel, but because it contains impurities such as sulfur, it is also a major source of pollution. Nanotechnology makes it possible, and cost effective, to efficiently remove impurities from coal and other fossil fuels. Nanotechnology also makes it possible to improve gasification and liquification procedures and efficiently extract liquid fuels from coal. Establishing coal as a “clean-burning” fuel, and a source material for the generation of other forms of energy, significantly expands the marketability of the area’s substantial coal reserves.

The Center will work in partnership with the surrounding coalfield counties, given the regional economic dependence upon the coal industry, and the potential of new energy sources to diversify the regional economy. In addition, it is anticipated that an advisory board will ultimately be established to allow for public and private sector collaboration with neighboring coal producing states.



## NAPOLEON HILL SCHOLARS AT UVa-WISE

*“Whatever the mind can conceive and believe, the mind can achieve.”* —Napoleon Hill



**TYWON OMEGA THOMPSON**, a native of Martinsville, Virginia, is majoring in Economics with a concentration in Finance at The University of Virginia’s College at Wise. Tywon is a second year Napoleon Hill Scholar, Secretary of Phi Beta Lambda, and an active member of the Multicultural Alliance. Upon graduation, his plans are to move to Salt Lake City, Utah and work with a leading financial institution. While in Utah, Tywon plans to attend The Graduate School at the University of Utah majoring in Public Policy.



**NANCY KAMAL** is a junior at The University of Virginia’s College at Wise majoring in Communication. Nancy is from Lynchburg, Virginia and expects to graduate with honors in December of 2010. In addition to her studies, Nancy is a Napoleon Hill Scholar and hopes to one day open her own chain of businesses.



**JUSTIN SWOOPE** is a 2nd year Junior at The University of Virginia’s College at Wise majoring in Business Administration. His hometown is Roanoke Virginia. Currently, Justin is a Napoleon Hill Scholar, the Marshal of the Delta Chi chapter of Pi Lambda Phi Fraternity, and works part-time at Advance Auto Parts.



**SHEENA LEIGH STROUTH** is a senior at The University of Virginia’s College at Wise majoring in Business Administration. She is a local resident from Pound, Virginia and expects to graduate with honors in May 2009. In addition to her studies, she is a member of the Napoleon Hill Scholars Program, and volunteers with CEDAR (Coal Education Development And Resource) of Virginia.



**JEKEYMA ROBINSON** is a senior at The University of Virginia’s College at Wise majoring in Business Administration, with a minor in Accounting. He is a native of Swords Creek, Virginia. Jekeyma is a Napoleon Hill Scholar and participates in other campus organizations. Jekeyma plans to continue his education after graduation to achieve a Masters in Business Administration, and eventually a Doctorate in Marketing.



**ASHLEIGH BANKS**, a native of Lynchburg, Virginia, is a sophomore at The University of Virginia’s College at Wise. She is majoring in Business Administration and hopes to complete her studies in May 2011. She is currently a Napoleon Hill Scholar.



**ELENA KLIKOVA** was born and raised in Rybinsk, Russia and has studied in Bulgaria. She is currently a senior at The University of Virginia’s College at Wise majoring in Business Administration. Elena is the founder and president of the Wise Wellness Club, and is also a second year Napoleon Hill Scholar. She plans to graduate with honors in May 2009, and then pursue a career in administration for a non-profit arts institution.



**SIMONETTA SIMMONS** was born in the Soviet Union, and lived her early childhood in Ghana Africa. Fairfax, Virginia, however, has been her home for most of her life. She is currently a senior at The University of Virginia’s College at Wise majoring in Economics, with a minor in Spanish. She is also a Napoleon Hill Scholar. In the next year, she will be living abroad in China, teaching English and hopes to one day join the Peace Corps and travel the world.

*We would like to thank the Napoleon Hill Scholars for introducing our Presenters at our 2009 Second Annual Energy Technology Summit.*

**8:00 - 8:30 Energy Technology Summit Registration**

**8:30 - 8:45 Welcome by SWVTC President Shannon Blevins, Chancellor David J. Prior and Wise County Board of Supervisors Chairman Robbie Robbins**

**8:45 - 9:15 Introduction by Sheena Strouth, Napoleon Hill Scholar**



### ***“The Outlook on Federal Energy Policy”***

**CONGRESSMAN RICK BOUCHER**

Congressman Rick Boucher is serving his 26th year in the U.S. House of Representatives representing southwestern Virginia's 9th District. An Abingdon resident, Boucher serves as a senior member of the Energy and Commerce Committee and House Judiciary Committee. He chairs two powerful Congressional subcommittees involving technology and the Internet. His work in the Congress has focused on regional infrastructure development including broadband Internet access. His Congressional work focuses on federal energy policy. Boucher played a leading role in the founding of the Southwestern Virginia Technology Council in 1999.

**9:15 - 9:45 Introduction by Nancy Kamal, Napoleon Hill Scholar**



### ***“IEC Fusion: A Review of the Miley Breakthroughs”***

**RICHARD DELL, JR., Program Manager, AVRC**

Mr. Dell is a Program Manager for the Advanced Vehicle Research Center (AVRC). His responsibilities for the AVRC include new media development, developing grant proposals and servicing the grants once awarded. Grant work he recently completed for the Department of Energy was published as a "Hydrogen Mobile Generation and Storage Unit Design and Build Document" and can be found at [www.avrc.com](http://www.avrc.com). Mr. Dell currently maintains a Department of Labor (DOL) Economic Development Agency (EDA) funded "Distance Learning Laboratory" for alternative fuels automotive workforce development.

Mr. Dell is developing a commercialization program for two applications of Inertial Electrostatic Confinement Fusion, as both a clean non-radioactive energy source, and as a propulsion system for next generation aerospace. In early 2006, Mr. Dell and his father started the Advanced Aerospace Resource Center (AARC) which supports ongoing education, marketing and commercialization projects in alternative energy, advanced propulsion and other Aerospace technologies. The primary project of the AARC is Team Stellar, an entry into the Google Lunar X Prize.

**9:45 -10:15 Introduction by Tywon Thompson, Napoleon Hill Scholar**



### ***“Landfill Waste or New Manufacturing Product of the Future?”***

**LARRY AUSTIN, Merchant Banker**

Mr. Austin is a merchant banker and former Wall Street lawyer. (Harvard Law School, 1980). He helped found/restructure companies in hi-tech corridors around MIT, NYC and Asia. He has developed or been among the early implementers of new financial products, transnational acquisitions and asset transfers, credit enhancement and non-traditional sale-leaseback techniques. As principal or advisor to select venture capital companies and allied organizations, he has also worked on economic development and technology infrastructure projects from Samoa, South Korea, China to West Virginia. He has been principal/CEO or advisor in teams that acquired 200 businesses—involving \$10 billion in financings. He was the first mover in several Asian markets including the team completing the first-ever trade with Chinese Government Sponsored Enterprise asset management companies, narrowly beating out the three largest investment banks in the world, followed by completing more such deals than any other foreign participants in that market over the next five years.

**10:15 -10:45 Introduction by Julia L. McAfee, Attorney at Law**



### ***“Dominion: New Directions in Energy”***

**JAMES K. MARTIN, Senior Vice President-Regulation & Integrated Planning, Dominion**

James K. Martin's responsibilities with Dominion include oversight of state and federal regulatory strategy, filings, and proceedings, as well as Dominion's conservation and load management initiatives, and integrated resource planning.

He joined Dominion Energy in 2000 and previously was vice president-Business Development and vice president-Fossil & Hydro Technical Services. He became senior vice-president-Business Development & Generation Construction in 2007, and assumed his current position April 1, 2009.

Martin came to Dominion from Peabody Coal Co. in St. Louis, where he was vice president-Sales & Marketing. He was responsible for developing business opportunities in integrating coal with power, emissions, transportation and other tradable commodities to meet the changing needs of the energy markets. He also had account responsibility for coal sales to major independent power producers. At the same time, Martin served as senior vice president of Peabody Energy Solutions Inc.

10:45 - 11:15 Introduction by Simonetta Simmons, Napoleon Hill Scholar



### ***“A Green Energy Alternative, A Free Enterprise Approach”***

**JAMES A. TITMAS, Chairman & CEO, Genesyst International, Inc.**

James A. Titmas, P.E., holds a BSCE degree from the University of Akron in Ohio. He is currently in his 52nd year of work in Civil Engineering in the waste processing and water treatment arts. He is the author of 25 patents in this field with 5 more patents pending. During his career he has lead responsibility in over eight hundred civil engineering projects. Beginning in 1989 he has been working with emerging economies in Africa, Asia, India, the Americas, Europe, the Pacific Rim and the Near East to establish a frame work for new methods of wastes management with emphasis on producing economically viable products from wastes—to support, all or in part, the costs of wastes elimination, without government subsidy. The most recent awarded patents relate to the conversion of wastes to fuels and feed products, the severance of the carbon sulfur bonds in used rubber and sub-dew point emission control with the commercial recovery of acids and toxic metals from air combustion.

11:15 -11:45 Introduction by Elena Klinova, Napoleon Hill Scholar



### ***“Natural Gas—Clean, Green Virginia Energy”***

**JERRY GRANTHAM, Vice President, Pine Mountain, Inc.**

Clean burning natural gas currently represents 99% of the hydrocarbon production in the Commonwealth of Virginia. Coalbed methane makes up the majority of this production and Virginia is now ranked 5th in coalbed methane production in the nation. All of the gas in Virginia is produced from a seven county area in the very southwestern corner of the state. The development of this resource by the gas industry in southwestern Virginia benefits the region and the Commonwealth by creating high paying jobs, generating revenue through royalty and tax payments and providing the cleanest burning fossil fuel available. Natural gas clearly should be part of the solution of meeting the future energy needs of both the Commonwealth and our nation.

A native of southwest Virginia, Mr. Grantham has over 25 years of experience in the gas and oil industry throughout the United States. He currently holds the position of Vice President of Range Resources - Pine Mountain, Inc. which explores for natural gas, both conventional and coalbed methane in southwestern Virginia. He is also the President of the Virginia Oil and Gas Association, an organization that represents all aspects of the gas industry in Virginia.

11:45 -12:15 Introduction by Sheena Strouth, Napoleon Hill Scholar



### ***“Mountain Top Removal—Past, Present & Future”***

**KEVIN CRUTCHFIELD, President & Director, Alpha Natural Resources, Inc.**

Mr. Crutchfield has served as President and member of the Board of Alpha Natural Resources, Inc. since 2007. Prior to that time, he served as the Executive Vice President since Alpha's formation in 2004. Mr. Crutchfield joined the Alpha management team as the Executive Vice President of Alpha Natural Resources, LLC and Vice President of ANR Holdings, LLC in 2003, and also served as the Executive Vice President of ANR Holdings, LLC from 2003 until ANR Holdings was merged with another of Alpha's subsidiaries in 2005. From 2001 through 2003, he was Vice President of El Paso Corporation, a natural gas and energy provider, and President of Coastal Coal Company, a coal producer and affiliate of El Paso Corporation acquired by Alpha in 2003. Prior to joining El Paso, he served as President of AMVEST Corporation, a coal and gas producer and provider of related products and services, and held executive positions at AEI Resources, Inc., a coal producer, including President and Chief Executive Officer.

12:25 - 1:00 Lunch

1:15 - 2:15 Introduction by Justin Swoope, Napoleon Hill Scholar



### ***“Electric Cars and Fleet Conversion Efficiency”***

Electric cars will be on display from 11:00 a.m. to 2:15 p.m.

**DICK DELL, SR., Executive Director, AVRC**

Dick Dell served in the US Air Force, working at Cape Canaveral on the Saturn Five program and also served in Southeast Asia. He joined IBM in 1968, holding positions including Field Engineer in Baltimore, Instructor in New York, National Account Manager in Washington DC, Strategic Planning Manager and Application Development Manger in IBM Headquarters. He left IBM in 1989 to do international business development including projects in Egypt, Saudi Arabia, Kuwait, Europe and Eastern Europe including Czechoslovakia. He founded the Advanced Vehicle Research Center in 2001, with locations in Raleigh, North Carolina and a new engineering center in Danville, Virginia.

As Strategic Planning Manager with IBM, Mr. Dell was responsible for the Field Engineering, Education Strategic Plan. He was a member of the team that developed the North Carolina Bio-Fuels Strategic Plan, and he had the primary responsibility for development of the North Carolina Aerospace Workforce Development Strategic Plan commissioned by the National Aerospace Workforce Development task force.

**2:30 - 4:00** **Introducer/Moderator Jack Kennedy**

## **“Future Energy Policy Forum by Gubernatorial Candidates”**

with questions exclusively on Energy Policy from the Napoleon Hill Scholars

### **TERRY McAULIFFE & CREIGH DEEDS**



#### **“The Republican Response”**

##### **STATE DELEGATE TERRY G. KILGORE**

State Delegate Terry G. Kilgore (R-Scott County) has been a member of the Virginia House of Delegates for 15 years placing him among the leadership of the General Assembly as a senior member. He serves as Chairman of the House Commerce & Labor Committee and he chairs subcommittees of the House Courts of Justice and the House Militia Police and Public Safety Committees. Taking an interest in space flight legislation, Kilgore patroned the Virginia Commercial Space Flight Liability and Immunity Act of 2007 which was subsequently adopted in Florida and now under active consideration by legislators in New Mexico, Texas and California. Today Delegate Kilgore will speak on energy and the candidacy of his former House colleague Robert McDonnell now running for governor as the would-be Republican nominee.

**4:00 - 5:00** **CLE Course**



#### **“Energy Programs under the 2009 Stimulus Plan”**

##### **JEFFERY K. MITCHELL, LeClairRyan Corporate Group**

Mr. Mitchell is a shareholder in LeClairRyan’s Corporate Group. He focuses his practice on corporate transactions and working with emerging and established businesses to provide strategic, growth-oriented legal advice, with practical in-house experience and public sector awareness. He has served as lead counsel on numerous venture capital financings, private equity raises, mergers, acquisitions, joint ventures, strategic alliances, and complex limited liability operating agreements.

**5:00 - 6:15** **CLE Course**



#### **“The Digital Law Office: Paper Less Case Files for Lawyers”**

##### **RON K. ELKINS, Wise County/City of Norton Commonwealth’s Attorney**

Ron is the Commonwealth’s Attorney for Wise County and the City of Norton. Ron, a life-long resident of Wise County, attended the University of Tennessee and received a Bachelor of Arts Degree, followed by Cumberland School of Law, where he received his Juris Doctorate degree. Ron uses paperless case files to manage the daily workflow of a busy prosecutor’s office.

**Electric Car display is open to the public from 11a.m. to 2:15p.m. Tickets are required for all other events. Contact the SWVTC at (276) 679-7800 for more information.**



##### **JACK KENNEDY Clerk of Circuit Court**

Jack Kennedy is an attorney and elected Wise County and Norton Clerk of Circuit Court. His multigenerational roots are in the Wise County natural resource energy business but his zest and passion are in the advancement of modern technology demonstrated by his co-founding of the Southwestern Virginia Technology Council in 1999 and his being cited with two gubernatorial technology awards in 1999 and 2003. Today he serves as treasurer of the Virginia Technology Alliance with a unique niche interest in civil and commercial space launch policy leading him to serve as Governor Tim Kaine’s appointee to the Virginia Commercial Space Flight Authority and the Virginia Aerospace Advisory Council. In addition to his license to practice law, Jack holds a M.A. in Political Science and a M.S. in Space Policy. He is currently a PhD candidate in Public Policy with a planned dissertation on Virginia commercial space launch policy at the Mid-Atlantic Regional Spaceport located on Wallops Island, VA.



##### **DONALD PURDIE Vice President, Data Insure, Inc.**

Now serving as the first statewide chair of the Virginia Technology Alliance from southwestern Virginia, Donald Purdie is a co-organizer of the 2009 Energy Technology Summit for the second year. Purdie is immediate past president of the Southwestern Virginia Technology Council. He serves as vice-president of Norton, VA-based Data Ensure, Inc. providing computer related services such as software programming, data backups, networking, web site design and hosting throughout Virginia. Prior to his work in the information technology sector, Purdie was a manager with Norfolk Southern Railway for seventeen years. He graduated from the University of West Georgia with a Bachelor of Business Administration. Today Donald serves on the board of directors of several civic-minded organizations including bringing leadership to the Virginia Technology Alliance ZeroGravity Teacher program to advance STEM (science, technology, engineering and mathematics) among Virginia students.



##### **JULIA L. McAFEE Attorney at Law**

Julia L. McAfee is an attorney and Certified Public Accountant. She is employed as an associate attorney with Carl E. McAfee, P.C. where she concentrates her practice of law in the areas of commercial contracts, personal injury, and medical mal-practice. She also serves as corporate counsel for JAD Coal Company, Inc., a mining operation which is located in Harlan, Kentucky. Julia is licensed to practice law in all state and federal courts in the Commonwealths of Virginia and Kentucky.

*We would like to thank Julia for participating in the 2009 Second Annual Energy Technology Summit.*



# GUBERNATORIAL FORUM

2:30 - 4:00 Introducer/Moderator Jack Kennedy

## "Future Energy Policy Forum by Gubernatorial Candidates"

with questions exclusively on Energy Policy from the Napoleon Hill Scholars



### TERRY McAULIFFE



Virginia Democrat Terry McAuliffe is a businessman, entrepreneur, and Democratic Party leader from Fairfax County. For over 30 years, Terry has been fighting to create jobs, improve health care and education, and build a better future.

Terry knew he would need to pay his own way through college so, at age 14, he started a business—the first of many successful businesses he would create throughout his life. At the age of 30, he was elected chairman of a struggling community bank that was on the verge of liquidation, and he turned it around. Later he took over and saved a large home building company that was on the

brink of bankruptcy.

Terry has also been active as a volunteer for Democratic candidates and causes. He served as Chairman of the Democratic National Committee where he brought his pragmatic, businessman's approach to politics. As DNC Chairman, Terry increased grassroots outreach with supporters, got the Party out of debt, and invested in new technology. He has also served as a vocal advocate for working families across the country and Democratic Party principles, like fighting to end our nation's reliance on foreign oil and develop renewable energy sources that are better for the environment and can create good jobs.

Terry has traveled to every corner of the commonwealth, listening to Virginians, and sharing his vision about how to grow the economy, create more jobs, and decrease the cost of living. As Governor, Terry will build on the progress and leadership of Mark Warner and Tim Kaine—Governors who brought business and executive experience to Richmond, but who also knew that not every good idea comes out of Richmond. Terry would bring that same kind of experience to leading Virginia.

### CREIGH DEEDS



Senator Deeds has spent the last two decades serving constituents from all walks of life—from his start as Bath County prosecutor to his current position as a State Senator representing the City of Charlottesville and a district that stretches to the West Virginia border. Whether he was working to clean up one of Virginia's largest Superfund sites, fighting for economic development, or writing some of the toughest legislation to keep our families safe and secure, Deeds has built his career as a consensus builder who delivers results.

He wrote Megan's Law, which allows public access to the state sex offender registry, and sponsored the Amber Alert Program to keep our children safe. Using his relationships with law enforcement officers and his experience as a prosecutor, Deeds wrote the state law that has turned the tide against homegrown illegal methamphetamine drug labs.

In addition to his work to cleanup the Kim-Stan landfill Superfund site, Senator Deeds also wrote one of the most progressive laws to preserve open space and protect the environment. For his leadership and advocacy, he received the Leadership in Public Policy Award from The Nature Conservancy and the Preservation Alliance of Virginia named him Delegate of the Year.

When Virginia was in a financial crisis, Deeds worked with Gov. Mark Warner to put the budget back in order—cutting waste and protecting important priorities. The 2004 bi-partisan budget agreement invested more than \$1 billion in education, eliminated the state food tax, and put more police officers on the streets with the tools and training they need to keep us safe.

Today he's working with Gov. Tim Kaine to keep Virginia moving forward with an energy policy that will cut greenhouse gases by 30% over the next two decades and a pre-kindergarten program that will put children on the path to success from the start.

## TECHNOLOGY COUNCIL TEACHER ZEROGRAVITY FLIGHT COMPETITION COMMENCED

The Southwestern Virginia Technology Council is accepting teacher applications for the 2009 STEM ZeroGravity Flights program, an initiative that places a southwestern Virginia public school teacher on micro- and zero-gravity flights to test Newton's Laws of Motion and energize students with special emphasis placed on those in the formative middle-school years.

Wise County native and 5th grade teacher Megan Seals recently flew a ZeroGravity flight and is working with the Virginia Technology Alliance to boost the idea of teacher ZeroGravity flight competitions throughout Virginia's technology regions. The flight costs \$5,000 per seat.

Southwestern teachers in public schools are welcome to apply for the program by contacting Jack Kennedy at 276.328.6111 or Donald Purdie at 276.679.7900 and gain more detailed information about the 2009 STEM Weightless Flights program.

Virginia regional technology councils and the Virginia Technology Alliance have partnered with the Zero Gravity Corporation to offer the STEM ZeroGravity Flights. The purpose of the technology council sponsorship is to support education and student interest in the science, technology, engineering and mathematics (STEM) fields.

Selected teachers will participate in a full-day orientation program several weeks before their flights. Teachers then will work with their students to develop experiments to be conducted in environments simulating lunar gravity, Martian gravity and weightlessness. Following the two-to-three-hour flight, each teacher will share his or her experiences back in the classroom.

The Southwestern Virginia Technology Council Weightless Flight program targets

math and science teachers primarily because the United States is experiencing a shortage of college graduates in these disciplines, a development that bodes ill for the nation's industries that depend on talented scientists and mathematicians.

Because studies have indicated most children make the decision to pursue math and science education and careers during middle school, a preference will be given to middle school teachers since they are key influencers in the lives of students during these crucial years. Nonetheless, every teacher with a student experiment may apply from the county and city school districts Wythe west to the farthest corner of Lee County.

The Southwestern Virginia Technology Council is actively seeking partners to fund a high school student ZeroGravity flight in 2010. Any business or person interested in promoting ZeroGravity flights to boost STEM education are urged to contact Jack Kennedy or Donald Purdie. The organizers are seeking to have the flights originate from the Mid-Atlantic Regional Spaceport in Accomack County.



Range Resources



Pine Mountain



**Dominion**  
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**Alpha** Natural Resources



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CENTER FOR INNOVATIVE TECHNOLOGY



**VIRGINIA OIL & GAS ASSOCIATION**



**Wellmont Health System**



**NORTON COMMUNITY HOSPITAL**  
Mountain States Health Alliance



**CARL E. McAFEE, P.C.**  
ATTORNEYS AT LAW



**LECLAIR RYAN**



**UNIVERSITY OF VIRGINIA**



**UMBLERLAND RESOURCES CORPORATION**



**DON PIPPIN**  
ATTORNEY AT LAW



**WISE COUNTY & NORTON BAR ASSOCIATION**



**THE VIRGINIA MINING ASSOCIATION, INC.**



276-796-4163



**WISE COUNTY PSA**



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**CAVALIER PHARMACY**



**The Southwestern Virginia Technology Council means BUSINESS!**