



TRANSPORTATION

Building Jobs through
Transportation

FOCUS

Winter
2007

News and Information from the Rahall Transportation Institute



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Partner Schools:



New Technology Produces 1st Royalties from a Patented Product for Marshall University

by Errin Jewell

New, electroceramесent lighting technology, which was developed by a partnership with the Rahall Transportation Institute (RTI), the Robert C. Byrd Institute (RCBI) for Advanced Flexible Manufacturing and Marshall University (MU), has earned Marshall its first royalties from a patented product.

On Feb. 21, 2007, MU President Stephen J. Kopp announced that since Dec. 2006, Marshall has received two royalty checks totaling \$292.16 from ECER Technologies, Inc., a Lewisburg, W.Va.-based company. Kopp said the royalties result from the university's effort to spur economic growth through major support of intellectual property created by faculty.

What is ElectroCeramescent Lighting or LECD (Light Emitting Ceramic Device) Technology?

ElectroCeramescent Lighting, or LECD (Light Emitting Ceramic Device), is a flat, ceramic-on-steel light-emitting bulb or device useful in signs for transportation and traditional advertising. The lighting is durable, and pierces through fog and mist. In fact, with most applications, it is also waterproof, bulletproof and shatterproof.

CONTINUED PAGE 3: LECD



Above: During a news conference, Firefly Innovation's Ron Graff; RTI Associate Director Richard Begley; MU College of Science Dean Dr. Andrew Rogerson; MU College of Information Technology and Engineering's Interim Dean Dr. Tony Szwilski; MU Professor Dr. Michael Norton; Charlotte Weber, RCBI Director and CEO; and Meadow River Enterprises, Inc.'s Don Osborne received framed dollar bills that represent the first royalties from the new lighting technology.

CONTINUED PAGE 3: ROYALTY

Winter 2007

visit us on the web at www.marshall.edu/rti



Plymale's Perspective The Director's Report



A New Year Means New Opportunities

At the start of each new year, most of us are filled with a sense of optimism and a desire to complete new goals that will make the road ahead of us better than the previous year's. Because RTI's mission is "Building Jobs through Transportation," our goal is to enhance transportation and economic development opportunities in the mountainous regions of West Virginia and Appalachia.

We are ready to begin the new year by celebrating research that began at RTI and has evolved into the creation of a new lighting technology, the first of which to produce royalties for Marshall University. Our new "light bulbs" have also led to the creation of a new West Virginia company, which has the potential to bring manufacturing jobs to our region.

In addition, we have long since recognized how valuable the development and maintenance of recreational trails has been to our state; in fact, some of RTI's initial research projects included economic impact studies of trails and their surrounding communities and creating GIS maps for trail networks. Now, we are eager to begin assisting more counties in constructing new trails, which have been proven to provide an economic boost to many communities.

Finally, the addition to our staff of three new research associates will help expand our work in the Geographical Information Systems field. These individuals first began working with RTI as students, thus gaining several years of experience in GIS technology while working toward advanced degrees. We are fortunate, not only to have been a part of their transition from novice to highly skilled workers, but also to retain them for work that will continue to advance our state for years to come.

Sincerely,

Robert L. Plymale

NHI Course Assists Professionals with Urban Drainage Design

From Oct. 31-Nov. 2, 2006, NHI Course #135027, Urban Drainage Design, took place at the West Virginia Department of Highways (DOH) in Charleston. Twenty-nine participants from the DOH and Federal Highway Administration earned 18 Continuing Education Units for completing the course.

The course provided an introduction to urban roadway drainage design and design guidance for solving basic problems that are encountered in urban roadway drainage design. Topics covered were hydrology, which included rational equations, soil conservation methods, regression equations and synthetic hydrographs, and highway drainage, which included gutter flow, roadway inlet interception, storm drainage systems, energy and hydraulic grade lines, detention ponds and stormwater management.

Barbara Roberts, program coordinator, sr., said, "The staff of WVDOH and FHWA commented that the course was a success to their professional development needs and were appreciative that they had the opportunity for the training."

Upon completion of the course, participants were able to: determine runoff (peak flows and volumes) from urban watershed, apply basic hydraulic principles to urban drainage design, perform roadway drainage design using various roadway inlets, establish the energy and hydraulic grade lines for storm drains and design and/or analyze detention basins.





CONTINUED FROM PAGE 1: ROYALTY



Above: Graff, Norton and Begley listen to U.S. Rep. Nick J. Rahall, II speak about the benefits of LECD technology.

To commemorate the first royalty checks, several individuals who played key roles in bringing the electroceramescent lighting technology into fruition were presented with framed dollar bills that represent the royalties.

Dr. Richard Begley, RTI associate director, and Dr. Michael Norton, RTI principal investigator, were key developers in the new technology and several devices that utilize it.

“We are at the forefront of a large commercialization opportunity resulting from a multi-disciplinary research success story,” Begley said. “The combination of federal funding programs to support this and other types of research that have been masterfully established over the years by Senator Byrd and Representative Rahall were the catalysts for this project. When we combine those programs with the support and enthusiasms of President Kopp for expanding engineering and multi-disciplinary research here at Marshall, our institution is on track for many other success stories like this in the years ahead.”

Begley and Norton, both of whom are also professors at Marshall, joined with researchers from Alfred University College of Ceramics in New York, and Meadow River Enterprises, Inc., a small manufacturing firm based in Lewisburg, W.Va, in developing the ceramic-on-steel light emitting device.

“There is a certain satisfaction in creating something new, in being a part of a creative team,” Norton said, “I believe this is only the start of a great new trend...and I hope these events ignite the imagination of our students and faculty, reassuring them that great things can be done ...”

U.S. Rep. Nick J. Rahall, II, who was present for the event, said, “Since 1998, I have brought \$28 million dollars in federal funding alone for RTI’s education, research and development. This royalty check is one of the many growing returns on that federal investment. It is a reinvestment in the public good.”

CONTINUED FROM PAGE 1: LECD

The first commercial product to use the LECD lighting is a flat, rectangular Bed-side Light Tray. Prototypes are also being tested for: outdoor signs a state parks, house identification markers, buoys, billboards, highway exit markers and railroad crossing signs.

Devices that use LECD technology may be electric-powered or solar-powered, depending on the actual product. Because products that use LECD technology cost much less to operate than most traditional lighting technologies, it is more environmentally friendly uses fewer resources to operate. In addition, LECD Lighting is very durable.

U.S. Rep. Nick J. Rahall, II praised the safety factor presented by the new product, “Here in Appalachia, along with even our magnificent federal interstates, we are often plagued with snow and ice, and of course fog. Anyone who can shine a light on safety is our friend – literally for life.”

CONTINUED PAGE 5: ROYALTY





Staff and Student Spotlight:

Name: Diana Long
Birthplace: Charleston, W.Va.
Title: Workforce Development Coordinator

Education: B.S. from Morris Harvey College (University of Charleston), Master's Degree, Vocational Education Administration, Doctorate from WVU in Education Administration



Projects w/ RTI: Workforce development study for WVDOT, GIS Curriculum Development Team, COPS Dept. of Justice Grant, RTI Skill Inventory

Name: Abbey Duplaga
Birthplace: Wheeling, W.Va.
Title: Undergraduate Research Assistant

Education: Pursuing a Bachelor's in Accounting at Marshall University



Projects w/ RTI: Secretarial work and assistant to RTI Director Bob Plymale

West Virginia Association of Geospatial Professionals Officially Organized *Inglis-Smith Elected Secretary*



On Thursday March 15, 2007, a new professional association, the West Virginia Association of Geospatial Professionals (WVAGP), became a permanent organization.

WVAGP's objective is to be "organized for the public benefit exclusively for educational and scientific purposes to promote and support geospatial professionals in the effective use and sharing of geospatial information and related resources throughout the state of West Virginia."

The meeting was attended by 55 people from West Virginia, 53 of whom signed up to be charter members. Bylaws for the group, as well as Articles of Incorporation, were adopted at this meeting.

In addition, members elected its first Board of Directors. Research Associate Chandra Inglis-Smith was elected to a two-year term on the board and was also elected to a one-year term as secretary. Two other research associates, Theresa Litteral and Sang Yoo, also became charter members of the WVAGP at the meeting.

WVAGP's first organizational meeting took place in September 2006. During this meeting, geospatial professionals from federal government, state government, education, private industry and local/regional sectors expressed interest in organizing the association.

Individuals who are interested in becoming Charter Members of the WVAGP may sign up until June 15, 2007, on the organization's website at www.wvaggp.org.





CONTINUED FROM PAGE 3: ROYALTY

Rahall said, “I especially want to commend President Kopp, whose vision for Marshall molds research into an emerging marketplace. To Senator Plymale, director of the Rahall Transportation Institute, whose leadership in promising research promotes job development, and to Kelly Goes, Secretary of Commerce, for all she does for the State of West Virginia. But none of us would be here today without the initial helping hand up of our own Senator Robert C. Byrd and the Robert C. Byrd Institute led by the capable Charlotte Weber, who first understood the promise here, and then worked to help secure the initial \$2 million grant from the Department of Energy to develop this light technology. Thanks also to The Claude Worthington Benedum Foundation and the Pittsburgh Gateways Corporation, who are helping bring this technology to market. Finally, to the spark of the matter, the inventors, the thinkers and the experimenters: Dr. Richard Begley, Associate Director of RTI and Dr. Michael Norton and to the companies ECER and Firefly, who are investing not only in this useful safety lighting technology, but in West Virginia.



Above: The Bedside Light Tray, which is held by Rahall and Kopp, is the first product that uses the new technology to be marketed.

Weber, director and CEO of RCBI, said RCBI is extremely proud to have played an important role in the project. “It is truly exciting to think about the tremendous impact his new patent promises to have – lighting the way to new manufacturing jobs for West Virginians while reducing energy costs for the nation’s businesses and consumers,” she said.

“We are at the forefront of a large commercialization opportunity resulting from a multi-disciplinary research success story. The combination of federal funding programs to support this and other types of research that have been masterfully established over the years by Senator Byrd and Representative Rahall were the catalysts for this project,” Dr. Richard Begley, RTI Associate Director.

Ron Graf, Firefly’s marketing and sales director, said his company was, “very impressed with LECD technology the first time we saw it as a transportation safety application. We saw infinite possibilities for commercial and retail products this light could be applied to. Our first product campaign for the Bedside Light Tray had many marketing challenges as a unique and unknown product. Today

we are delighted to announce the successful results of our marketing efforts and share the proceeds from the sales of the first product line with Marshall University .We are encouraged that sales will continue to increase as we expand our marketing efforts regionally and then nationally.”

Eric Gould, chairman of the board for ECER, said, the research support provided by Marshall, combined with the partnerships they helped ECER develop with other state and federal agencies, allowed ECER to diversify its production line. “These partnerships gave ECER the ability to complete its research and development with LECD, while continuing its metal manufacturing business. As sales for the LECD continue to grown, we are looking to establish a new production facility in West Virginia closer to Huntington that will continue to work with Marshall University, RCBI and RTI, to help maintain competitive manufacturing costs and further develop the LECD technology and its applications.”

Rahall summed up the launch of the new LECD lighting by concluding, “Edison made over 2,000 attempts to find the best filament for his incandescent light bulb. I don’t know that we will ever know how many tries brought us here today. But we, as West Virginians, all realize hard work pays off. Today is only a glimmer of RTI’s growing role in our economy, but at the same time, it is also a brilliant, crystal clear beacon to light our future for the next generation.”

For more information about LECD lighting technology, contact Dr. Richard Begley at Begley@marshall.edu or 304-696-6660, or Dr. Michael Norton at Norton@marshall.edu or 304-696-6627.

For more information about Firefly Lighting Innovations, visit their website at www.fireflylightinginnovations.com.



Trails Day at the Legislature

by Errin Jewell

Recreational trails are continuing to be used more widely each year in West Virginia, and trail enthusiasts from across the state recently gathered at the state capitol to express to legislators the many benefits trails bring to the state.

On Jan. 17, 2006, approximately 22 organizations, which represent non-profits, research, education, local government, industry and recreational groups, participated in "Trails Day at the Legislature."

During the event, the organizations brought information and displays about their roles in the trail industry to the capitol rotunda.

The event was organized by Bill Robinson, state trails coordinator. He said the purpose of the event was to "let our legislative representatives receive a good impression of the West Virginia Trails community."

Bryan Helmer, trails specialist, represented RTI at "Trails Day," where he provided visitors with information about RTI's trail contracting activities, which consist of creating trail inventories, designing layouts and guiding the construction of new trails.

RTI's trail-related research projects, such TRP 99-11 Maximizing Economic Benefits from A Rails to Trails Project in Southern WV - A Case Study of the Greenbrier River Trail, TRP 99-29 Planning for the Development of A Greenway Between Huntington and Charleston-Research Initiation Project and TTP 00-17 Development and Evaluation of a GIS Mapping System for West Virginia's Hatfield and McCoy Trail System; graduate and undergraduate courses in off-highway vehicle trail design and management; and non-motorized vehicle safety activities for K-12 students, were also highlighted.

In addition, Robinson presented awards for the top State Trail Worker and Trail Advocacy representative from the 18th National Trail Symposium, which took place Oct. 19-22, 2006.

More information about RTI's Trail Contracting projects and trail-related Transportation Research Projects are available online at www.marshall.edu/rti.

New Bike Aids in Trail Contracting



In order to help assist clients in creating new recreational trails, RTI recently acquired a Suzuki DRZ 250. This vehicle will help access rugged areas that cannot be reached by traditional vehicles.

Truck Driver Awareness Training Offered in Huntington by RTI and the PSC of W. Va.

Twenty-seven individuals from the trucking industry participated in Truck Driver Awareness Training (TDAT) Thursday, March 8, 2007, at Marshall University's Huntington campus. Truck drivers, dispatchers, trucking company owners and representatives from professional trucking organizations, received certificates of attendance for the free training.

The two-hour training was made possible by RTI and the Public Service Commission of West Virginia. Instructors were: John Ball, RTI research associate; Reggie Bunner, Jon Cline, Scott Morton and Robin Swiney, all from the Transportation Enforcement Division of the Public Service Commission of West Virginia.

During training, topics that were addressed included: 21st Century Transportation and Transportation Workforce Issues, Definition of Commercial Motor Vehicles, Definition of Inter-State and Intra-State Commerce, Definition of Private Carrier, Definition of For-Hire Carrier, Hours-of-Service, CDL Requirements, Types of CDLs, Driver Qualifications, Seat-Belt Enforcement Initiative, Share-the-Road PSA for Schools, SAFE 07 and Highway Watch Program, and Driver/Carrier Education and Training Opportunities.





3 New Research Associates Work on GIS Projects

by Errin Jewell

Three new research associates, Jeremy Boykin, Chandra Inglis-Smith and Theresa Litteral, recently became the newest full-time members of RTI's staff. Their duties concentrate on Geographical Information System (GIS) projects, which include using a variety of GIS software to create coverage generation, table attribution, data projection, remote sensing, conversion and analysis.

They also assist in training clients to use various GIS software packages, developing and presenting GIS data and output to clients, as well as analyzing, designing, implementing, testing and deploying custom GIS software applications.

All are proficient in using ESRI software and have a good understanding of GIS theory and practical application, which includes a broad knowledge of remote sensing, global satellite technology, database management and GIS programming.

Boykin has a bachelor's degree in Computers and Information Technology from Marshall University, and while earning his degree, he was an undergraduate research assistant at RTI for two years. His current projects include: ADHS Cost Estimate for the Appalachian Regional Commission, WVTRIP GIS Portal for the West Virginia Department of Transportation (WVDOT), the Workforce Development Study for the WVDOT and internal server migration.

While completing a master's degree in Physical Science – Geobiophysical Modeling, Inglis-Smith was a graduate research assistant at RTI from 2004 to 2006. She was also the 2005 Student of the Year. As a research associate, she is working on the Workforce Development

Study for the WVDOT, GIS Training for the WVDOT, ADHS Cost Estimate for the Appalachian Regional Commission and Tax Parcel Mapping. Inglis-Smith has a bachelor's degree in Archaeology and Anthropology from Mercyhurst College

Litteral began her career at RTI as one of its first graduate research assistants in 2001. After she finished a master's degree in Physical Science – Geobiophysical Modeling, she continued to work part time on several GIS-related projects before joining the staff full time. Her current projects include: DOT Linear Referencing Project; Tax Parcel Mapping; Hatfield-McCoy Trails mapping; Share the Road Project; and the Workforce Development Study for the WVDOT.



Jeremy Boykin



Chandra Inglis-Smith



Theresa Litteral

"We are fortunate not only to assist in their education and workforce training, but to provide these highly-skilled workers with jobs that allow them to use their skills to improve economic development in West Virginia and the Appalachian region."

RTI Director Robert Plymale

rience in academic research and working with GIS and information technology projects.

"Our three newest research associates are not native West Virginians. In fact, Jeremy is from Mississippi, Chandra is from New York and Theresa is from the United Kingdom. They come from vastly different regions, but were attracted to RTI because of its high technology ties to Marshall University. We are fortunate not only to assist in their education and workforce training, but to provide these highly-skilled workers with jobs that allow them to use their skills to improve economic development in West Virginia and the Appalachian region."

development Study for the WVDOT.

RTI Director Robert Plymale said, "Each of the new research associates began their time with RTI as students, where they gained at least two years of background experience in academic research and working with GIS and information technology projects."



Lawson Recognized as Student of the Year

By Kate Jordan

For 2006, David Brian Lawson was chosen as the RTI student of the year for his work as the Information Technology Coordinator at RTI and, specifically, for his efforts designing and implementing the data warehouse and core system components of the Transportation and Economic Development Information System (TEDIS).

TEDIS brings improved data sharing and technology transfer tools to researchers, transportation professionals and government agencies. TEDIS is both a system for reporting transportation and economic data and a platform for building and hosting related applications in the future.

David first graduated from Marshall University in 1989 with a B.S. degree in Computer Science. He spent the next 14 years working in the software industry as an engineer, architect and, finally, as vice president of a software firm in Northern Virginia.

In 2003, David and his family returned to West Virginia, and to Marshall University, where he joined the Rahall Appalachian Transportation Institute and also began working on an M.S. degree in Information Systems.

In the three years since, David has applied his skills in requirements gathering, system analysis and system design to several RTI projects, but with the primary focus on TEDIS. As a result, TEDIS uses state-of-the-art hardware and software technology to host



most RTI research and production projects and data sets including ones for the Appalachian Regional Commission, the WV Department of Transportation, the WV Department of Environmental Protection, Operation Respond and the WV Statewide Addressing and Mapping Board.

In May of 2006, David graduated with distinction from Marshall University with a Master of Science degree in Information Systems.

Following graduation, David immediately began working on a Doctorate in Education, which he will also receive from Marshall University. The University Transportation Center and the Nick J. Rahall II Appalachian Transportation Institute are proud to recognize David on receiving student of the year and his many accomplishments.



The University Transportation Centers, as defined on their webpage, are programs that have been established with the primary objective being transportation education and a means in which to institutionalize the use of strategic planning in university grant management.

The UTC is made possible through the U.S. Department of Transportation, and each year, a student is recognized from each participating center as an outstanding student of the year.





Operation Lifesaver Trains Six New Presenters

By *Kate Jordan*

February 24, 2007, marked another success for Operation Lifesaver as six new presenters were trained to speak out on railroad safety and awareness.

Trainers and presenters met at the Nick J. Rahall, II Appalachian Institute on a Saturday to learn what is necessary to be a presenter as well as what information is pertinent when teaching railroad safety.

Ira Baldwin, of the West Virginia Public Safety Commission, headed up the training, along with Ross Dye III, of Norfolk Southern, and David Farley, who works for CSX.

Trainees included Julie Adkins, student of Wyoming East High School; Charley Bickford, student of Nicholas County High School; Tom Davis, employee of CSX; Dean Hudnall, employee of WVPSC; Kate Jordan, MU grad student and employee of RTI; and Greg Morgan, employee of Norfolk Southern.



John Perry was also present as the state coordinator of WVOL.

Training focused on the most essential points

of Operation Lifesaver, which are summarized by their two slogans: “Look, Listen, Live” and “Stay Off, Stay Away, Stay Alive.” Under both of these slogans exists a plethora of information designed to educate the public about railroad safety and what can be done to ensure that every individual is aware of the dangers that exist on and around trains.



Above: Left to right: Kate Jordan, Ira Baldwin (instructor), Julie Adkins, Charley Bickford, Ross Dye (instructor), Dean Hudnall, Greg Morgan, David Farley (instructor), Tom Davis.

Each trainee gave a 10 minute presentation at the end of the training session as a way to get used to presenting to the public, as well as a way to demonstrate their knowledge of railroad safety.

Within 90 days of the training, trainees are required to schedule a presentation that will be observed by one of the trainers. In order to stay an active member of OL, trained presenters are required to give four presentations per year. Congratulations to the new presenters.

If you or someone you know is interested in becoming an OL presenter or you would like

someone to give a presentation to your group, please

visit www.wvol.org or contact John Perry at jonper@wcgnet.net





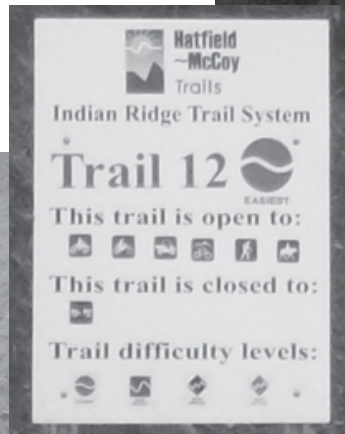
Indian Ridge Trail System Opens in Ashland, W.Va.

By Errin Jewell

Off-highway vehicle enthusiasts from across the United States traveled to Ashland, W.Va., March 16, 2007, to be the first riders on the Indian Ridge Trail System.

Despite the rainy weather, riders from West Virginia, Tennessee, Virginia and other areas made the trip to McDowell County to ride the newest addition to the Hatfield-McCoy Trails.

This trail consists of approximately 75 miles of trail and one trailhead with a two-acre parking/loading area and restrooms.



RTI's trails specialist and GIS research associates assisted with creating the inventory, mapping and some construction oversight of this trail. Construction began in 2006 and was completed early 2007.

The Indian Ridge Trail is expected to be officially dedicated in April 2007.

Left photo: The first riders emerge from one loop of the new trail. Middle photo: Signs indicate the name of the trail, levels of difficulty and any restrictions to riders. Top Photo: Riders line up to be the first to travel the Indian Ridge Trail System.

About the Indian Ridge Trail System

According to the Hatfield-McCoy Trail's official website,

"This trail offers a nice variety of trails for all difficulty levels. The breakdown in trail percentage for this trail system is as follows: 24% are green trails (easiest), 47% are blue trails (more difficult), 20% are black trails (most difficult), and 9% are

orange trails (single track).

"This trail system offers community access to the Town of Norhfork and the Town of Keystone. Nearby communities offer fuel, food and lodging accommodations."

More information about the Hatfield-McCoy Trails is available online at www.trailsheaven.com.





LEGO Goes to FLL State Tournament

By Kate Jordan

While various LEGO projects keep Linda Hamilton, Coordinator K-12 Outreach Intelligent Transportation Systems Worksops, busy throughout most of the year, the biggest project that awaits her and her students is the FIRST LEGO League (FLL) Challenge.

Many of the schools Hamilton visits form teams and participate in the West Virginia State FLL competition. This year's theme/challenge focused on nanotechnology. As defined on FLL's webpage, "nanotechnology is a new scientific frontier that is impacting many facets of society such as medicine, computers and the environment."

Students are required to present a project that addresses the given theme, along with the field project and robot performance. This year's FLL project required students to explore the current or potential application of nanotechnology, design an improvement for existing nanotechnology or choose a potential application that faces a challenge and solve it.

RTI hosted a local event for teams at Marshall's Morrow Library Dec. 2, 2006. The event was open to the public and served as a practice round for many of the teams that were going on to participate in the state tournament.

This year marked the second year Wheeling Jesuit University hosted the FIRST LEGO League State

Right: Teams created displays to explain the technology used in their projects and the design, programming and testing steps required to complete the challenge.



Above: The Barboursville RoboPirates were second place winners in the project presentation category at the West Virginia State FIRST LEGO League Challenge in Wheeling.

Tournament. Sponsors for the event included NASA West Virginia Space Grant Consortium, Mid-Atlantic Region Space Science Broker, American Electric Power and RTI. Thirteen teams from West Virginia were present at this year's tournament, five of which were assisted by Hamilton.

The Barboursville RoboPirates, mentored by Hamilton and Hope Romine, received second place in project presentation. NXTwin, a team from Mount View High School that Hamilton coached, received the



Above: Winning teams received trophies constructed from LEGO bricks.

judges award, "Against All Odds." This award is given to a team who overcomes all obstacles. NXTwin was also presented with a \$100 LEGO gift certificate.

The Milton Middle LEGO Panthers received a second place award in teamwork and the Robo Geek Squad, led by Amy Miller and a combination of students from different schools in Southern West Virginia, received honorable mention.



Transportation Focus is a quarterly newsletter published by the Nick J. Rahall, II Appalachian Transportation Institute.

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Read *Transportation Focus* online at www.marshall.edu/ati/news/newsletter.htmlx.

Upcoming Events

Conferences

March 2007

Natioanl Off-Highway Vehicle Conservation Council Conference, Huntington, W.Va.

Technology Transfer Activities

April 18-19, 2007

GPS Training - WVVDOT, Charleston, W.Va.

April 26, 2007

TDAT Training, Martinsburg, W.Va.

May 10, 2007

TDAT Training, Wheeling, W.Va.

May 15-17, 2007

Utility Training

May 18-20, 2007

National Maritime Days Celebration, Harris Riverfront Park, Huntington, W.Va.

May 22-24, 2007

Utility Training

K-12 Outreach

SPRING 2007

LEGO Robotics Pilot Testing of *Robotics Engineering Vol. I and Vol. II*, Tri-State Area Schools, W.Va.

Register online at www.marshall.edu/rti or call Sandra Jones at (304) 696-7098.

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