EV Education

http://eveducation.com/ABOUT %20EVEP.html

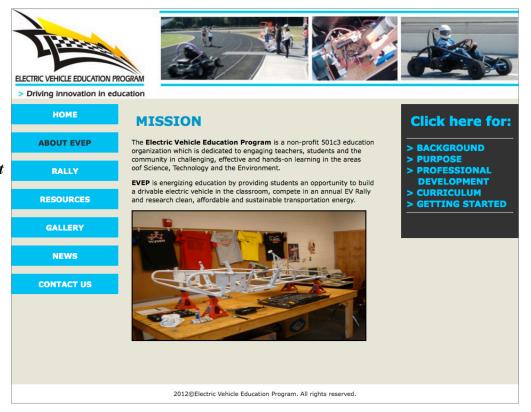
2010-2011 BOARD MEMBERS

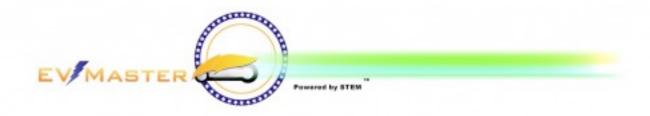
Jane Franklin, *President* Coordinator, Smart Ride Chair, The Green Team Cell: 404-285-9655 btsparky@gmail.com

Ross Seden, *interim Vice-President* 1182 Staghorn Trail Nicholson, GA 30565 706-757-2224 croftequip@windstream.net

Luis Romo, acting Treasurer 56 Buck Trail Braselton, GA 30517 706-654-3397 lromo@evmaster.com

Jennifer Cain, *Secretary* 715 Moonlite Trace Winder, GA 30680 davidcain@yahoo.com





http://www.evmasters.com/category/rally-info/

2012 Georgia EV Rally is March 24th

EVMaster (or electric vehicle master) is the perfect educational tool for STEM. (Science, Technology, Engineering and Math) as well as other subjects and curriculums:

Environmental Science.

Principles of Technology.

Principles of Manufacturing.

Introduction to Electronics, etc.

The tool is a full size, driveable (EVMaster) vehicle that you assemble in class following comprehensive instructions while displaying every imaginable scientific principle:

simple machines, measurement systems, material's properties, manufacturing technology, electricity, aerodynamics, etc....

Our program aligns with a standards-based, interdisciplinary curriculum that allows for authentic learning and assessment. It is a low cost, all included project, (even tools and curriculum) designed to build an exciting drivable electric vehicle in your classroom. EVMaster is the founder and supplier of the electric vehicle education program.

Mission Statement:

EV Master is an Educational program to help teachers and students to learn and understand about the many disciplines involved in the world of transportation and environmental science.

You will use our own electric vehicle emtv (electric master teaching vehicle) as the subject of demonstration. It keeps the interest and attention of the students while giving teachers a fabulous hands-on tool to demonstrate many principles of different disciplines, mainly Physics and Physical Science, but also, Math, Chemistry, Environmental Science, History, English... to name just a few.



http://www.aedve.info/

Welcome to the Advanced Electric Drive Vehicle Education Program

The Advanced Electric **Drive** Vehicle Education Program, funded by the U.S. Department of Energy, provides information, educational opportunities, and outreach activities for multiple audiences to educate America on next generation vehicles. These audiences include: consumers, first responders, secondary school educators and students, charging infrastructure engineers and installers, automotive technicians, and fleet op-



erators. The Advanced Electric Drive Vehicle Education Program includes:

- Specialized curricula and training featuring web-driven simulators, and a vehicle simulation and demonstration tool.
 - Electric Drive Vehicle First Responder Safety Training
 - o Electric Drive Vehicle Automotive Technician Training
 - Electric Drive Vehicle Career & Technical Education Training
 - Electric Drive Vehicle Infrastructure Training
- Consumer-friendly educational materials, including the <u>Advanced Electric Drive</u> 101 Toolkit and website.
- Support of National Alternative Fuel Vehicle (AFV) Day Odyssey, where the general public can receive an up-close and personal view of advanced electric drive vehicles.

• Many education and outreach events including trade shows, exhibits, and other opportunities addressing advanced electric drive vehicles.

For more information about the <u>Advanced Electric Drive</u> Vehicle Education Program, please contact:

National Alternative Fuels Training Consortium 1100 Frederick Lane Morgantown, WV 26508 304-293-7882

EV Grand Prix

http://www.evgrandprix.org/education.php











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EPICS Teams - Electric Vehicle Event Infrastructure

Gain practical experience for your professional lives when you join a Purdue University EPICS team to organize, plan, and market the Electric Vehicle Grand Prix event. Next year our EVEI program will feature three teams with focus ranging each with focuses ranging from event planning and marketing to educational outreach.

Electric Vehicle Design & Build Teams

College and University student teams compete to design, build and race the fastest and most energyefficient battery electric powered go kart. Register for the opportunity to gain real experience with teamwork, multidisciplinary team members, and technology development.

Electric Vehicle Educational Courses

New courses are available now, Spring 2010, at Purdue University that allow you to gain professional team design experience in a classroom setting. Your classroom work will be integrated with the Electric Vehicle Grand Prix event.

Smart Energy Hub

Smart Energy Hub information and links (coming soon).

4H Opportunities



News, Media, & Archives



Top News Item



Boiler Bytes: ev Grand Prix comes to Indianapolis Motor Speedway



Calendar



Video Libraries





Junior Solar Sprint

http://www.nesea.org/k-12/juniorsolarsprint/

Junior Solar Sprint (JSS) continues to be facilitated at the local and state level by a dedicated group of individuals, nonprofits, and institutions. If would like to contact your area/ state JSS Coordinator and are not sure who that individual is, please visit the National Renewable Energy Lab (NREL) for a listing of all coordinators. NREL also houses on-line JSS curriculum materials.

As of June 30, 2011, The U.S. Army Educational Outreach Program (AEOP) and AEOP Consortium Leader, Virginia Tech, are working to identify the next regional coordinator. If you have participated in JSS you will be alerted by the new coordinator. If you have any questions regarding the status of JSS in the northeast please contact Donna Augustine at Virginia Tech at

donna.augustine@vt.edu.



JSS Northeast Area

Coordinators and

Area Event Dates

ISS Transporation

JSS Supporters

2009 Northeast

2010 Photo Gallery

Championship

Clean Energy for a Clean

Winners

Environment Solar Sails New York

Resources

The Junior Solar Sprint Program

Junior Solar Sprint is a design engineering challenge where students in fifth through eighth grade design and create model solar electric race cars. Youth can then enter competitions and be judged on the merits of the model solar electric cars.

Through JSS, students develop teamwork and problem solving abilities, investigate environmental issues, gain hands-on engineering skills, and use principals of science and math to get the fastest, most interesting, and best crafted vehicle possible.

This is a teacher's dream! Having students design and build a model solar car for competition is highly engaging and challenges kids to put their learning to practical use.

Junior Solar Sprint Resources:

Area & State Event Coordinators

JSS Northeast Championship Official Rules 2011

JSS Resources - Curricula

How to Build a Model Solar Car (NREL Tutorial, PDF)

JSS Resources - Official Panels & Motors

JSS Resources - Transportation Links

Get Inspired:

Championship Winning Teams 2011 & 2011 Gallery

Championship Winning Teams 2010

Championship Winning Teams 2009

2009 Championship Video - Watch on the AEOP website!

Championship Winning Teams 2008

2008 Photo Gallery

JSS Supporters



It our sincerest hope that programs such as JSS provide opportunities for students to become informed and proactive citizens, infused with a team-spirit approach to face the challenges that lie ahead with dignity and resourcefulness. http://www.parksconservancy.org/about/press/press-releases/a-living-lab-crissy-field.html

Crissy Field Center Goes "Greener"

February 14, 2012

Media Contact

David Shaw, VP Marketing and Communications
415-561-3064; dshaw@parksconservancy.org

Center's New Wind Turbines, Car Charger Boost Energy Research, Educate Youth

San Francisco, CA: <u>The Crissy Field Center</u>—an urban environmental education center at East Beach in the Presidio—is unveiling on Wednesday, February 15, the final pieces to its suite of sustainable technologies: five state-of-the-art wind turbines and an electric-car charging station. With these additions, this facility is on track to attain LEED Platinum certification—making it one of the greenest buildings in America's national parks.

The Center—a partnership project of the Golden Gate National Parks Conservancy, National Park Service, and Presidio Trust—is housed in a 7,500-square-foot interim building that includes classrooms and learning labs for schoolchildren and youth, as well as the Beach Hut Café, which is open to the public. With features like maximized natural lighting and recycled construction materials, the entire facility is a showcase of environmentally-savvy design.

The new turbines and charging station—in addition to one of the most advanced building monitoring systems in the country—will provide invaluable data to the nascent field of renewable energy and help educate community members and young people about the latest sustainability solutions.

As a pilot project within the national parks to demonstrate energy innovations, this project aims to move the Center to net-zero power consumption. Some of these "green" components include:

- 1. Solar thermal panels: Will heat most of the water used at the Beach Hut Café by supplementing the traditional gas boiler.
- **2. Rain catchment system**: A 5,000-gallon system will provide over 50 percent of the water used in the Center's toilets
- **3. Photovoltaic systems or solar power panels**: Will generate a substantial portion of the electricity used at the Center.
- 4. Wind turbines: Five new wind turbines, each 30-feet tall, are being installed in front of the Center to harness the 10-mph (on average) winds to help power the building. The Hawaii Natural Energy Institute (HNEI), which provided funds for the project, will glean data on the efficacy of three types of vertical axis turbines (in contrast to propeller-like "horizontal axis" turbines). These "vertical-axis" turbines are designed to minimize noise and limit environmental impact, especially for birds and bats. The turbines are a pilot project intended to bolster real-world data in wind energy research, promote public interest in renewable technology, and generate clean power for Center operations.
- **5. Electric car charger station**: A free electric charging station is being installed by Adopt-a-Charger in collaboration with a grant from the National Parks Conservation Association and support from the National Park Service. This pilot program is designed to accelerate the widespread adoption of plug-in vehicles throughout the proliferation of public, fee-free electric car chargers which are "adopted" by sponsors. The station has secured funding for three years.

"Golden Gate National Parks is committed to sustainability," said Frank Dean, General Superintendent of the Golden Gate National Recreation Area. "Advancement of new technologies, rethinking park operations, and

investing in our future by educating the next generation all contribute to our overarching goal of energy efficiency and conservation."

A custom designed monitoring system and "dashboard" designed by Loisos and Ubbelhode in conjunction with Project FROG and the Conservancy staff, will track energy production and consumption along with other aspects of the building's performance. This will serve as a powerful education tool for the community by providing data in real time and also advance the Center's existing robust science and sustainability solutions curriculum for youth. The goal is to offer the public information about local power generation with small-scale wind turbines and other sources. Students from Galileo Academy of Science and Technology will monitor the project's energy efficiency as part of their environmental studies class in partnership with Crissy Field Center.

"The Crissy Field Center serves more than 20,000 students every year through its environmental education programs," said Greg Moore, President and CEO of the Golden Gate National Parks Conservancy. "Today, the Center has taken another important step toward fulfilling its potential as a living laboratory for youth interested in pursuing green careers. Crissy Field was transformed in 2001 from an abandoned army site to a beautiful shoreline national park. And it continues to grow as a testament to the Bay Area's ethic, dedication, and passion for environmental protection."



http://www.bridgestone.com/responsibilities/corporate_citizenship/activities/americas01.html

A group of high school students from the DeLaSalle School in Kansas City, Missouri, and their mentors, including engineers from Bridgestone Americas' Technical Center in Akron, Ohio, have just concluded tests on a student-built electric car at Bridgestone's Texas Proving Grounds -- and may have set a world record for efficiency. The allelectric vehicle was built as a class project under the direction of instructor. With the help of automotive mentors, the students have created a plug-in electric car based on the chassis of an Indy Car. The students developed the driveline, electric propulsion system and full, ultra light-weight aerodynamic body. The car, which is mounted on Bridgestone ECOPIA tires, showed remarkable results in testing -- test runs reported



efficiency levels that would be the equivalent of more than 300 miles per gallon. The instructor is currently petitioning Guinness World Records to consider the students' accomplishments as a new world record.

2nd THINK BEFORE YOU DRIVE Inter-University Contest Mexico (Bridgestone Mexico)

After the launch of MAKE CARS GREEN, Bridgestone Mexico(BSMX) began activities in the field, conducting free tire checks in gas stations nationwide and in vehicle emissions testing centers in Mexico City. Throughout the year, BSMX promoters reached more than 3,500 tire check-ups in 22 gas stations and 6 vehicle centers, with the distribution of more than 50,000 MCG leaflets and tire gauges, and advising motorists of the correct process to check tire pressure. To implement the campaign, BSMX established effective partnerships with local environmental associations.



Solar Curriculum



FPL provides solar curriculum materials to participating schools and hosts teacher professional development programs to help educators learn about energy - especially solar energy - and how to integrate solar education into their classrooms. FPL works with the <u>Florida Solar Energy Center</u> and the <u>NEED Project</u> to provide curriculum resources to schools.

NEED Curriculum Materials for a foundation of energy knowledge and for solar are downloadable below: The NEED Curriculum Kit includes:

- 2010-2011 NEED Resources Catalog
- The Blueprint for Success
- Energy Games and Icebreakers
- Energy Projects and Activities
- Primary Energy Infobook
- Elementary Energy Infobook
- Intermediate Energy Infobook
- Secondary Energy Infobook

To learn more about solar energy, NEED has developed four levels of curriculum materials on solar:

- Primary The Sun and Its Energy (pdf)
- Elementary Wonders of the Sun Teacher Guide (pdf)
- Elementary Wonders of the Sun Student Guide (pdf)
- Intermediate Energy from the Sun Teacher Guide (pdf)
- Intermediate Energy from the Sun Student Guide (pdf)
- Secondary Photovoltaics Teacher Guide (pdf)
- Secondary Photovoltaics Student Guide (pdf)

The <u>NEED Schools Going Solar Guide</u> has research and analysis lessons using the data projected from the school solar installation.

