

IEEE *emeritbadges* Project



ENERGIZING GLOBAL YOUTH TOWARDS "STEM" CAREERS

ESTABLISHED IN 1981

The IEEE *emeritbadges* Project is a global STEM education program for boys and girls. *emeritbadges* will operate the 2017 National Jamboree's Electricity Merit Badge Booth and Electronics Merit Badge Booth at the Summit Bechtel Reserve in WV.

The IEEE *emeritbadges* Project instructional materials for basic electricity and electronics, are based on the Electricity and Electronics merit badges but can be used to instruct globally diverse educational groups. The 2017 National Scout Jamboree is just one opportunity out of many, such as Girl Scouts, schools, museums, and homeschoolers, where the instructional material and kits can be used.

Merit Badges are educational programs that are part of the Boy Scouts of America. There are over 135 merit badges that a youth can earn. Merit Badges provide the youth opportunities

- to learn skills
- to be introduced to lifetime hobbies
- to be inspired to pursue a career.

IEEE *emeritbadges* Project plans to:

- Teach the Electricity Merit Badge and the Electronics Merit Badge during the Jamboree,
- Operate a Careers booth with the goal of introducing visitors to STEM related careers,
- Participate in Day of Service in communities near the Jamboree,
- Use the IEEE-USA MOVE vehicle to show visitors how technology can help people during disasters,

- Operate a demonstration booth to provide visitors an awareness and understanding of technology and its impact on society,
- Translate instructional material into Spanish, Vietnamese, French, and educational languages used in Sub-Saharan Africa, Indonesia and the Philippines,
- Conduct on-line train-the-trainer webinar for IEEE entities in all ten Regions during the Jamboree to train volunteers how to use instructional material in their local communities.

emeritbadges will also operate social media and website channels to publicize activities and engage a broad audience to publicize the event and activities.

VISION

The IEEE *emeritbadges* Project is a global STEM education program for boys and girls. The project, with its thirty volunteers, will increase the public awareness and understanding of technology and how it can be used to benefit humanity, primarily to boys and girls at the middle school and high school levels at the 2017 National Jamboree. www.emeritbadges.org

emeritbadges GOALS

Technology Pipeline

- Provide Electricity & Electronics Merit Badge training.

STEM

- Promote awareness and understanding of technology and STEM related careers.
- Incorporate need for critical/computational thinking in technological innovations.

Global

- Translate instructional material into Spanish, Vietnamese, French, and educational languages used in Sub-Saharan Africa, Indonesia and the Philippines.
- Encourage participation of international contingent scouts in booth activities.
- Promote project vision on the project's social media platforms and website.
- Provide each IEEE Region with instructional material and kits for use in their local area.

Diversity

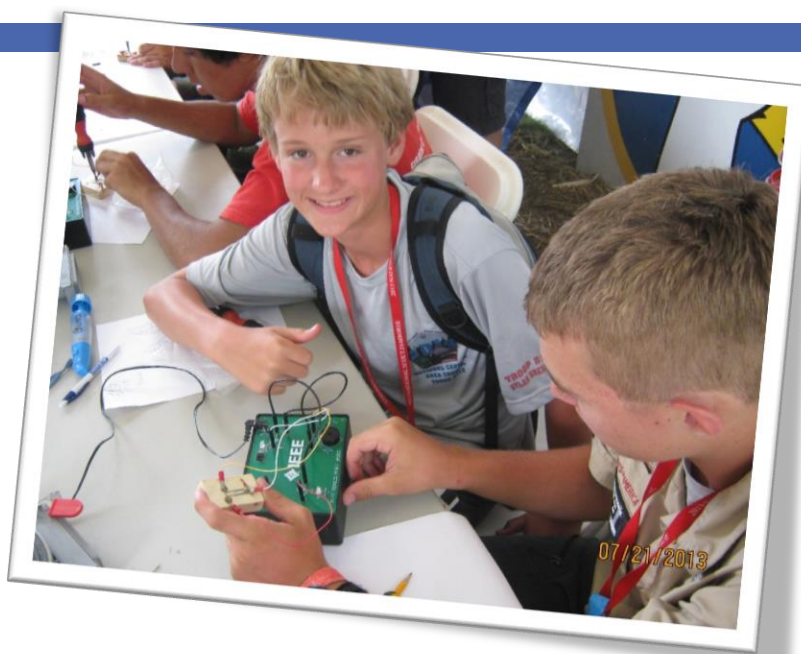
- Encourage 2,000 girls attending the Jamboree as Venturers and Explorers to participate in booth activities.

Humanity

- Participate in Jamboree Day of Service in nearby West Virginia communities with IEEE MOVE Community Outreach Project vehicle.
- Use the IEEE MOVE vehicle to show visitors how technology can help people during disasters and to assist with STEM related activities

Awareness & Understanding

- Support of the Moviemaking Merit Badge participating youth to prepare short film with the theme "Raise awareness and understanding of technology and its impact on society".



emeritbadges OPERATIONAL OVERVIEW

ELECTRICITY MERIT BADGE



Provide Electricity Merit Badge training, counseling and hands-on activities for participant to earn the badge within a 3.5-hour time commitment. Participants will learn basic electricity, electrical safety and energy conservation.

CAREERS STATION

Provide technology careers information to Jamboree participants and visitors. The IEEE REACH (Raising Engineering Awareness Through the Conduit of History) will also be used to show the relationship between engineering and humanity.

ELECTRONICS MERIT BADGE



Provide Electronics Merit Badge training and hands-on activities for participant to earn the badge within a 3.5-hour time commitment. Participants will learn basic electronic circuitry, electronic components, and technology career opportunities. Participants will solder together a microprocessor controlled counter kit that they can take home.

DEMONSTRATION STATION

The Demonstration Station will demonstrate technologies that can address global humanitarian needs such as reliable sources of energy, clean drinking water, improved health care, and food shortages.

SPECIAL EXHIBITS & EVENTS

The IEEE USA's MOVE vehicle, IEEE-USA's Community Outreach Initiative (The MOVE Project), will be an integral part of the booths and provide STEM activities to booth visitors. The MOVE vehicle offers a mobile emergency relief program committed to assisting victims of natural disasters with short-term communications, computer, and power solutions. Our project has offered to assist with the Jamboree Day of Service project in communities near the Jamboree in West Virginia.



AUDIENCE

The primary audiences are middle school and high school youth, boys and girls, and adults attending and visiting the 2017

National Jamboree from the USA and several global countries. Other audiences include IEEE entities in all 10 IEEE Regions.

Participants & visitors include:

- Middle School & High School Boys & Girls
- Participants from USA & all 10 IEEE Regions
- Adult Staff
- Global Visitors, Parents, Teachers, Media, & Government & Industrial Leaders

BOY SCOUTS OF AMERICA

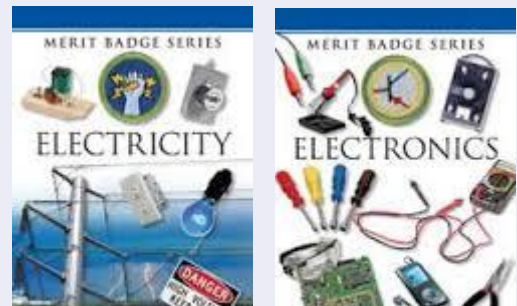
The Boy Scouts of America is one of the nation's largest youth programs. **Boy Scouts** emphasize shared leadership experiences, citizenship, fun, adventure, fitness, and respect. These programs include boys in first grade through 18 years old.

Venturers and **Sea Scouts** are co-ed programs for young people from 14 to 20, building character through meaningful activities and high-adventure. **Exploring** provides males and females age 10-20 the opportunity to learn about career fields, network with business leaders, and gain hands-on experience in a fun environment.

The World Organization of Scouting is an international scouting group with over 40 million members. There are only five countries that do not have a scouting program.

NATIONAL SCOUT JAMBOREE

The National Scout Jamboree is a gathering, or jamboree, of thousands of members, boys and girls, of the Boy Scouts of America. The Jamboree is usually held every four years. Youth from all over the nation and world have the opportunity to attend. The Jamboree was attended by over 40,000 in 2013. The Jamboree is held at The Summit Bechtel Family National Scout Reserve in Glen Jean, WV, July 19, 2017 – July 28, 2017.



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