

# IEEE MOVE Volunteer Newsletter An IEEE-USA Initiative November 2022

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**Newsletter Editor: Luis A. Tatis** 

The IEEE MOVE truck is deployed to respond to hardest hit disaster areas that frequently have no power communications. MOVE can quickly set up temporary operations and provide the power and communications required to initiate services to the people affected by the disaster. MOVE is staffed by a network of hundreds of IEEE volunteers who cross train with the Red Cross to provide technology and services at disasters. IEEE volunteers designed, maintain, and operate the truck. When not at disasters, IEEE MOVE provides public outreach and STEM education at schools, universities, public events and IEEE events. The large truck draws interest to IEEE from over 50,000 people annually. For additional information, visit move.ieeeusa.org.



#### **MOVE News** by Loretta Arellano

This had been a mild hurricane season. We supported the Kentucky floods and then Hurricane Ian hit. Both trucks were called upon to support the Florida devastation. The West coast team supported their first disaster - the Border32 fire near San Diego.

In between these events, the MOVE team was able to support several outreach events or conferences. MOVE-2 supported events in North Carolina and MOVE-1 supported the GHTC in Santa Clara. MOVE-1 also attended the first west coast Red Cross simulation exercise.

All these events are highlighted in this newsletter.

We completed another MOVE Operations training this summer. We hope to have another Operations training session as well as another driver training course soon. MOVE teams are still looking for volunteers to support both trucks in both locations. This newsletter highlights the various operations teams and the great work that they do. If you are interested in volunteering, please contact Mark Torres (MGTorres@ieee.org).

When not supporting disasters, the MOVE trucks support various STEM events. Melody shows us many ways you can get started to support STEM in your local area.

MOVE is supported by donations and with a second truck, your donations are needed more than ever. Please consider a donation today to assist your fellow IEEE Volunteers as they respond to those in need. Visit http://bit.ly/DONATION-MOVE.

A special section is included on MOVE Puerto Rico and India. Both are doing excellent work.

## Flood Response Deployment

#### **Kentucky Flooding deployment**

#### By Jay Diepenbrock

Tim Troske from the MOVE West team and Jay Diepenbrock deployed with MOVE-2 to support the Red Cross' relief effort following catastrophic flooding in Easter Kentucky in August 2022. This was Tim's first deployment as a MOVE driver, and his first experience with the MOVE-2 truck. He did a great job and learned a lot about the MOVE-2 truck and its equipment. The flooding was over a fairly wide area and did extensive damage. Jay and Tim were initially based in Lexington at the Red Cross chapter office, but that's a three-hour drive from the worst damaged areas, so it involved a lot of driving every day and late-night returns. They were then moved to a staff shelter in Paintsville, which is much closer to the affected area. Work was done over several days to support a Red Cross outreach site in Whitesburg as well as a warehouse in Pikeville where there was virtually no cell phone service and satellite reception was less than ideal.





It's hard to convey the power of water until one sees the damage that it can cause. There were houses moved off their foundations, roads washed out, many trees uprooted, debris and even a school bus in the streams.





The truck's air conditioned conference room was especially appreciated by some of the elderly clients due to the high temperatures and lack of electricity in their homes.

## FIRE RESPONSE DEPLOYMENT

#### **MOVE WEST Border32 Fire Response**

#### By Kathy Herring Hayashi

Wildfires move fast. The MOVE West team received the call from the San Diego American Red Cross at 6:30 AM and by 11:30 AM that same day, MOVE West Operations Lead, Bill Torre, had the MOVE West team assembled and ready to respond to the Border32 fire in Pine Valley, located in southeastern San Diego County.



MOVE West members Bill Torre and Kathy Hayashi deployed the MOVE-1 truck to support the Border32 fire in Pine Valley, San Diego.

With over a hundred people forced to evacuate, Mountain Empire High School became their temporary home. Due to melted lines, the school was without internet, but the MOVE-1 truck was enroute. After checking in, the MOVE-1 team setup the American Red Cross network so their volunteers could login to their laptops, fill out any needed forms and stay connected with all responders in the area.

The team then worked to setup the satellite and the Cisco Meraki access point so that the evacuees could use wi-fi connections to help ease the stress of connecting to insurance sites, keeping family and friends up to date and other needs of the evacuees.

The MOVE-1 team kept in contact with the Red Cross members on-site and appreciated the hot meals provided by the Red Cross, which were sourced by local restaurants.



Over 100 community members spent the night at Mountain Empire High School as a result of the Border32 fire.

The deployment was short, many of the evacuees spent the night, but returned to their homes late the next day. However, both the San Diego Red Cross and the community members were extremely thankful for the capabilities provided by the MOVE initiative.



The Mountain Empire High School also served as an emergency Pet Shelter to support animals displaced by the fire.

This was an important milestone for the truck, not only was it the first disaster deployment for the MOVE WEST team, it also demonstrated the team's ability to support the truck maintenance, volunteers' readiness, as well as the partnership with the local American Red Cross. The latter allowed them to understand the important role that the MOVE truck provides and how it can help their missions in the area. Thank you to Bill Torre and the MOVE WEST team for an initial successful deployment in the Western US Region.

## MOBILE DISASTER RELIEF WITH MOVE

#### Simulation Exercise with San Diego Red Cross

#### **By William Torre**

Preparation and practice for disaster relief operations and coordination with the Red Cross is important to ensure efficient and successful deployments. The IEEE MOVE west team participated in a shelter simulation exercise with the San Diego Red Cross on July 23, 2022.

The exercise simulated the work conditions to setup a fully functioning evacuation shelter. The simulation exercise was held at the San Diego Red Cross headquarters building. The IEEE MOVE team setup the IEEE MOVE truck adjacent to the Red Cross building where the shelter exercise was held. Internet Ethernet cable was routed into the simulated shelter area through conduits that were accessible outside and under the flooring inside the building. A Wi-Fi access point was setup inside the facility.

The Internet service was provided using both the LTE router using First net cell service and also using the Satellite service. This simulation exercise working with the local Red Cross Disaster Services Technology (DST) team proved valuable and good preparation when later on the IEEE MOVE truck was deployed in response to the Border 32 fire event in eastern San Diego county.













## **Global Humanitarian Technology Conference 2022**

#### "Bill and Ted's Andy's Excellent Adventure" (2) to GHTC 2022

#### By Andy Moorwood

September saw MOVE-1 go on its first outreach trip on the west coast, traveling to the Global Humanitarian Technology Conference "GHTC" in Santa Clara Ca, with enroute stops at Cal state Northridge "CSUN" and Cal Poly Pomona. In addition to the outreach activity, the trip provided two new "Class of 2022" MOVE drivers, Bill Torre, and Andy Moorwood with some extended drive time on the main artery of the west coast, Interstate 5. The topography of the trip gave Bill and Andy opportunities to practice their downhill speed management skills, a perennial challenge for truck drivers, on the Grapevine (I5) and Pacheco Pass (SR-152).

GHTC is an international flagship conference, focused on bringing together people working on the application of technology to addressing critical issues for the benefit of the resource-constrained and vulnerable populations in the world. It is a forum where IEEE works with developers and NGOs to identify the most pressing needs. The MOVE-1 truck was the prime exhibit of the conference's "Disaster Mitigation, Preparedness, Response and Recovery" Theme.

The outbound leg of the trip saw the truck stop at Cal State Northridge. GPS based navigation systems have taken much of the guess work out of road trip directions. The difficulty comes when the truck needs to go off road, for example, into pedestrian zones on campus. Where, "the last thousand feet" of a trip really benefits from local intervention by the organizers / campus security. Once safely parked outside the engineering building, the truck was open for tours by students and staff.







### MOBILE DISASTER RELIEF WITH MOVE

The GHTC 2022 conference was held at Santa Clara University in the heart of Silicon Valley. In addition to providing tours of the truck, the MOVE initiative was the subject of a presentation by Region 6 director Timothy Lee and incoming director Kathy Hayashi.





Co-located with the conference the IEEE Consultants' Network of Silicon Valley (CNSV) organized a workshop "Communications, Computing, and Power during Disaster Response." This consisted of a panel discussion with representatives from several NGOs. The MOVE initiative was represented by Bill Torre, leader of the MOVE West team.

On the return journey to San Diego MOVE-1 stopped at Cal Poly Pomona for tours and a presentation sponsored by the IEEE Foothill section. At Cal Poly MOVE-1 encountered another limitation of GPS navigation systems, their inability to include temporary road closures / roadworks into the database. After several detours, and much local assistance, MOVE-1 parked outside the engineering building at Cal Poly Pomona, and was met by an enthusiastic group of students.

After five days, three stops, and over a thousand miles driven, MOVE-1 returned to home base at the Red Cross headquarters in San Diego, to await its next call to duty. **The end of a truly excellent adventure!** 





Special thank you to the San Fernando Valley Section, Foothill Section, Cal Poly Pomona, and Cal State Northridge. A very Enthusiastic group of students. Thank you.

### MOBILE DISASTER RELIEF WITH MOVE

#### **IEEE MOVE Outreach in North Carolina**

#### By Grayson Randall

IEEE MOVE has done several outreach missions in North Carolina this fall. The MOVE mission when not deployed at disasters is to outreach to students and the public with education on topics about how IEEE supports technology at disasters and to engage students to the fields of engineering supported by IEEE.

On Wednesday, August 31<sup>st</sup> the MOVE truck went to Goldsboro, NC to support a Red Cross training event. Tim Forrest, Joe Penissi, and Grayson Randall took MOVE-2 to the Red Cross DAT Leadership Summit and supplied internet that supported a hybrid format with local volunteers and others on Microsoft Teams. It was an all-day event and we supplied internet for the entire session. We want to thank our national partner American Red Cross for utilizing our services which was great training for both organizations.

On Thursday September 8th, MOVE-2 was displayed at the North Carolina State University (NCSU) IEEE student chapter meeting. After COVID-19, the student chapter was trying to restart the activities in the chapter. MOVE-2 was displayed in front of the building where we gave tours and generated interest in engineering students. Other students and chapter advisors were available to answer questions and get names for potential chapter members. I understand that they got around 80 students that signed up as potential new student chapter members. Great opportunity to engage students and increase interest in IEEE.

On September 13th MOVE-2 went to Eastern Carolina University to speak at a seminar series that Dr. Yao teaches. We did a presentation to the class and then invited everyone to tour the truck. We had a lot of interest and enjoyed the opportunity to interact with senior university students.

If your IEEE chapter, section, region or other organization would like a MOVE presentation or to have the MOVE truck displayed at your location or event; please contact Mark Torres (<a href="MGTorres@ieee.org">MGTorres@ieee.org</a>)









### **MOVE SUPPORT TEAMS**

#### WE ARE BETTER THAN EVER WITH OUR SUPPORT TEAMS

#### By Grayson Randall

The MOVE Program has come a long way since 2016 when we went into uncharted territory in austere environments immediately following some very impactful fires, floods, and hurricanes.

The program has grown exponentially since 2016 and now, thankfully, is supported while on mission by several support teams volunteers.

The iMOVEWx Team, the imrc IEEE MOVE Radio Club, IEEE MOVE Networking Team, and the IEEE MOVE MAINTENANCE Team are supporting both MOVE-1 and MOVE-2 via Group Text and amateur radio DMR (Digital Mobile Radio).





Jay Diepenbrock and Butch Shadwell are the Radio Club Leaders and Club Charter Members and MOVE truck drivers. Jay was deployed with MOVE-1 and monitored W4MOV the MOVE DMR Talk Group Radio Channel daily. Butch monitored from his home in Jacksonville, FL



**Tim Forrest** 

Tim Forrest is a radio Club Charter Member who Leads the iMOVEWx Team and monitored W4MOV the MOVE DMR Talk Group Radio Channel daily from his home in Newport/Morehead City, NC. The iMOVEWx Team keeps both trucks weather safe, by routing them around severe thunderstorms or other turbulent weather while rolling, and by providing daily forecast synopses for each truck's operations location. The weather team communicates with the truck teams via DMR amateur radio and /or group texts.

### **MOVE SUPPORT TEAMS**

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By Grayson Randall

The weather team sends out three group texts to the truck teams each morning.

- 1. AOR (Area Of Operations) weather synopses.
- 2. National and Puerto Rico synopses.
- 3. Radio communications weather synopsis.
- 4. ALL sources of information are daily reports from NOAA/NWS entities.



Dave Green Radio Club Secretary, Club Charter Member, and Networking Guru monitored the W4MOV daily as well from his home in **Birmingham AL**. Dave is also the creator of the wonderful truck/wx radar tracking system, which has been a boon to keeping the trucks safe from thunderstorms and high winds whether they are rolling coast to coast or stationery in a disaster response AOR.



Steve Kemp Radio Club Charter Member and Virginia Region DST & RAST Lead monitored the W4MOV channel daily and performed the mission logging ALL radio comms on the W4MOV DMR Channel, during the HURRICANE IAN mission from his home in Richmond, VA.

Steve dropped and broke his hot spot and enlisted the help of Shellie Lundquist of the IEEE Richmond Section. In the shock of hitting the pavement, the receive antenna popped off the circuit board. Shellie had the precision soldering iron and talent that it took to reinstall it. Steve was back online logging W4MOV comms in no time!

## **MOVE SUPPORT TEAMS**

#### WE ARE BETTER THAN EVER WITH OUR SUPPORT TEAMS

By Grayson Randall

The skewed RX antenna chip has broken solder on the surface mount antenna. The TX antenna is an identical part and located left side under TX screen print.



Grayson Randall Radio Club Charter Member, Networking, and Operations Team Lead and MOVE Truck Driver also deployed with Jay Diepenbrock in MOVE-1 and monitored W4MOV the MOVE DMR Talk Group Radio Channel daily.



David Wright, also a Radio Cub Charter member, did ALL the due diligence to start the club! David is the Maintenance Team Lead and he also monitored the W4MOV channel daily, from his home in Chapel Hill, NC, providing connections with local maintenance organizations in the AOR to maintain the trucks and the generators, et al. The generators both needed oil changes with the long daily run times during the Hurricane lan response. David coordinated that effort.





### **MOVE OPERATIONS**

## **Volunteer Highlight**

#### **Volunteer Highlight**

#### By William Torre

I am a Senior IEEE Life member and have been involved in IEEE for over 40 years. I have recently been assigned to lead the operations of the IEEE MOVE-1 truck which has been moved to San Diego, CA to support disaster relief in the Western US. I serve as a Member at Large in the local San Diego IEEE chapter, and help with various activities on the Executive Committee. I hold a BSEE from the University of Missouri, and a MSEE from California Polytechnic State University. My background is mainly in the field of power systems engineering and I have been a long time member of the Power and Energy Society (previously Power Engineering Society). I have served as chair of the local San Diego chapter of PES, and as chair of the IEEE PES General Meeting twice, and served as keynote speaker. My first job out of college in 1976 was at Pacific Gas and Electric Co. as a field engineer. Later I worked at San Diego Gas and Electric Co. for about 30 years, and held positions as Principal Engineer, Manager of Transmission Engineering, Manager of Research and Development and Chief Engineer of the company. After retiring from SDG&E, I accepted a position at the University of California – San Diego as Director of Research at the Center for Energy Research, where I led an effort to build a new research program focused on renewable energy and new energy storage technologies.

I am glad that IEEE has developed the IEEE MOVE program because it can bring direct and tangible benefits to people in times when they need it most following major disasters. While our efforts to advance technology are important, IEEE can have a direct and immediate positive impact that supports people's needs through the IEEE MOVE program and collaboration with the American Red Cross (ARC). I am looking forward to seeing how having the IEEE MOVE truck can support people in the western US. We responded recently to a wildfire in San Diego County and supported a ARC evacuation shelter, and the support that we gave them by providing much needed telecommunications was greatly appreciated by the ARC and the public. We also recently supported three Science, Technology, Engineering, and Math (STEM) events at Santa Clara University, California State University- Northridge, and California Polytechnic State University – Pomona, where students learned about the IEEE MOVE program and the capability and mission of the IEEE MOVE trucks. This is a great opportunity for me (and others on our team) to utilize the experience we have gained in our engineering careers to support people following disasters and for educational dissemination about engineering at STEM events.







**IEEE MOVE West Team** 

## **MOVE** partners with IEEE Future Directions

#### IEEE MOVE partners with IEEE Future Directions Initiative and Project

By Grayson Randall

MOVE has been active with IEEE Future Directions projects and initiatives. MOVE has partnered with the IEEE FDC Public Safety Technology Initiative to help improve the technology used for public safety. Grayson Randall was the featured speaker at the Initiatives' "Advances in Public Safety Technology Workshop" in November. https://publicsafety.ieee.org/

MOVE is also partnered with the "Low Earth Orbit Satellites and Systems" project of the FDC. MOVE's use of satellite technology and extensive STEM network is an avenue to help that project develop with a goal of educating and developing skills in this emerging technology. https://cmte.ieee.org/futuredirections/projects/leo-satellites-systems/

The IEEE Future Directions Committee (FDC), in association with Societies, Councils, and OUs, anticipates and determines the direction of existing, new, and emerging technologies and related issues, and spearheads their investigation and development by IEEE. Taking a holistic view, the FDC emphasizes new, emerging technical areas and drives them to maturity within the IEEE infrastructure. Additionally, the FDC serves as a liaison to and fosters cooperative efforts among Societies, Councils, and industry to develop new products and services in emerging topics. https://cmte.ieee.org/futuredirections



**Thanks to our Supporters** 

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### STEM on the MOVE

#### **MOVE STEM**

#### By Melody Richardson



I started my adventures with STEM Outreach over 15 years ago. Acting as an eleventh-hour guest science instructor at a STEM event, I challenged students to build a better candy bag. I had no idea what I was doing, didn't know what I had to offer, and was not an expert on building a candy bag. As my first group students arrived, I was thinking "What have I gotten myself into?" The second group of students helped me find my groove and by the third group I was hooked. Creativity, determination, and enthusiasm thrived in the students building a better candy bag. My students were excited to see how much candy their bag could contain, and eagerly tried new designs with better results. With a few supplies and a little bit of my time, my students found inspiration in the scientific method!

Since that first event, I have repeated the candy bags challenge at countless events and helped inspire over 75,000 future engineers. To my surprise, I made fantastic friends along the way and engaged with astronauts, scholars, and some brilliant future engineers. Plus, I became addicted to watching students challenge themselves and realize that failure is just a steppingstone to something bigger and better.

If you are anything like me, STEM outreach seems daunting. But it is worth it. You have an opportunity to inspire the next generation of engineers. By just giving a little bit of your time and expertise, you could increase STEM literacy, inspire students to pursue opportunities in STEM related fields, and strengthen educators' STEM-related curriculum. Consider the benefits - you never know what connections you might make, the future engineers you will inspire, and how teaching will improve your own understanding of your selected topic.

You can make a difference and it's as easy as taking one small step for STEM.



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### **STEM on the MOVE**

#### **MOVE STEM**

#### By Melody Richardson



Here are some simple ways to get started:

- 1. Research Local Museums, Science Centers, or <u>Makerspaces</u>. They are always looking for volunteers.
  - a. Google your city and Museum, Science Center or Makerspace
    - i. Look for a STEM Specialist, Volunteer Coordinator, or the institution's volunteer page
- 2. Inquire at your company most companies support outreach. Could you host a tour of your lab or offer an internship?
- 3. Donate School Supplies and Pack a Backpack
  - a. Contact your city's <u>United Way</u> or <u>Kids in Need Foundation</u> or <u>Adopt a Classroom</u>
  - b. Want to help a local school? https://www.donorschoose.org/
- 4. Become a STEM pen-pal Letters to a Pre-Scientist
- 5. Donate STEM related books to a classroom Region 3's STEM Literacy Project
  - a. For more information contact Melody Richardson
- 6. Get Involved in IEEEs Existing Outreach Programs:
  - o **EDS-ETC** Engineers Demonstrating Science: an Engineer Teacher Connection
  - o IEEE TryEngineering Volunteer STEM Portal
  - o TryEngineering Together
  - TryEngineering Summer Institute
  - o <u>EPICS in IEEE</u> Engineering Projects in Community Service (EPICS) is a program that organizes university and high-school students to work on engineering-related projects for local humanitarian organizations.
  - o <u>WIE STAR Program</u> The IEEE Student-Teacher and Research Engineer/Scientist (STAR) program's aim is to create a technical support network for teachers and a mentoring program for students.



## #IEEEGivingTuesday 2022

#### **IEEE MOVE Giving Tuesday 2022 Support and Efforts**

By Luis A. Tatis

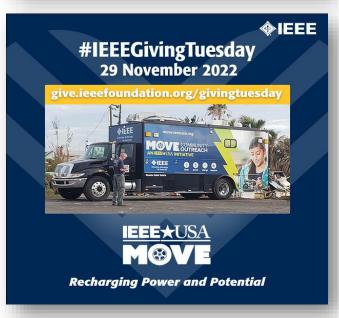
Natural disasters have tragically altered lives, cities and communities around the world.

Power is a critical component to have readily available during these challenging times because when power is lost, people have no means to recharge cell phones, no fuel, no lights, and no way to reach out or receive communications. Fear ensues and victims feel isolated and lost as with Hurricanes Fiona and IAN. The IEEE USA MOVE truck and its volunteers help facilitate the recovery efforts.

Please Support our IEEE MOVE Programs: https://give.ieeefoundation.org/campaign/giving-tuesday-2022/c431387











#### **International MOVE**

#### By M.E. Randall

Our focus this year is on India and the Caribbean area. Both areas have regular natural disasters, but they vary in type and scope. Each MOVE initiative is tailored to the particulars of the locale.

MOVE India continues a wide range of activities including disaster preparation, awareness and prevention for both professionals and students of all ages.

Hundreds of India volunteers have participated in these activities spread across the country.

Well done team India!

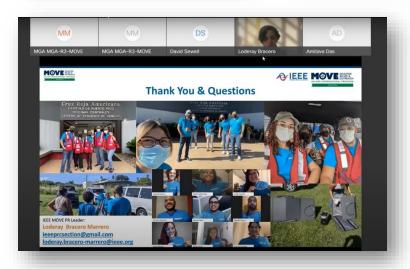
The MOVE Caribbean team, led by Puerto Rico, has been very active. Team members provided relief efforts after Hurricane Fiona which caused extensive damage, widespread loss of power, flooding and mud slides.

The team also deployed kits with solar panels and other equipment which was used to power devices when electricity was not available.

Well done team Puerto Rico!











#### The second phase for MOVE Outreach India program

#### By Sadhana Attavar

The second phase for MOVE Outreach India program undertaken by IEEE India Council led by Dr.Suresh Nair and Ms.Sadhana Attavar kicked off with the first physical meeting of MOVE India leaders on July 23 2022 at Bangalore with a brain storming session on action plan for training of volunteers and sponsorship for MOVE Truck.





(Ashoka Vittala, Chengappa, Jayakrishnan M C, Mousiki Kar, Suresh Nair, Sadhana Attavar, Harish Mysore, Arun Tankasali)

#### **Volunteer Training**

300+ volunteers actively engaged in various committees of MOVE India. As part of Disaster management talk series the eighth talk in the series on "Disaster Management: Reflections on science, policy and society" was organised on September 24 2022 at 7 pm in virtual mode by Prof. Janki Andharia, Professor, Mumbai Campus, Chairperson - Centre for Disasters and Development, Jamsetji Tata School of Disaster Studies





#### **MOVE Program Talk at IEEE YESIST 2022**

On September 11 2022 a talk on IEEE MOVE program was delivered by Ms.Mary Ellen Randell, Director MOVE Outreach International as part of IEEE YESIST 2022 at Bangalore. IEEE MOVE India team had a meeting with Mary Ellen Randell on the sidelines of IEEE YESIST 2022.





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#### The second phase for MOVE Outreach India program

By Sadhana Attavar

#### **Disaster Awareness Training**

The first first in-person disaster awareness training an initiative for school students and ToT (Training of Trainers) to engineering students, was held on October 13, 2022 on the occasion of International Day for Disaster Risk Reduction in collaboration with Visvesvaraya Industrial and Technological Museum (VITM) at Bengaluru. The training provided basic awareness regarding disasters and provide a roadmap for preparedness to help oneself and others in case disaster strikes.













#### A Special Visit to India

By M.E. Randall

It was a joy to meet with many of our MOVE volunteers in Bangalore, India in September. We discussed plans for the remainder of 2022 and 2023. We have an enthusiastic team leading this effort chaired by Dr. Suresh Nair and Sadhana Attavar.

It was an honor to speak with students at the YESIST12 Innovation Challenge held at Sri Venkateshwara College of Engineering, Bangalore. This was the finale of a series of team competitions where students develop a sustainable solution to a societal challenge. The solutions ranged from computer controlled irrigation systems to power distribution. The students are very talented and inspiring.

Presenting the MOVE Program to the YESIST attendees, Young Professionals, and mentors was another highlight of the trip. It was nice to tell about the technologies IEEE members develop and are used to provide relief to those impacted by a disaster.

P

YESIST12 Opening Ceremony with Girish Khilari, Pune Section Chair

YESIST leadership, including Dr. Ramalatha Marimuthu (seated 2<sup>nd</sup> from left) and R10 Director Deepak Mathur (seated 2<sup>nd</sup> from right)





#### A Special Visit to India

By M.E. Randall

YESIST12 Team including Young Professionals and other Leaders



The trip was topped off by a visit to Delhi Technological University. Again, the students were very enthusiastic about their studies and entrepreneurship activities.



Left to right: Dean S. Indu, Dean Madhusudan Singh, Vice Chancellor JP Saini, ME Randall,

Ashkat Gupta, NSUT SB Chair, Prof Prerna Gaur, Prof. Rachana Garg

Many thanks to Prof. Rachana Garg, and Prof Prerna Gaur (NSUT) who arranged the visit and my escorts. Prof. Rachana Garg is Chair of the Delhi Section and Prof. Prerna Gaur is India Council Treasurer and Past

Chair of the Delhi Section.



These gracious ladies were my escorts for getting around Delhi and to the University. They are Past Chair of IEEE NSUT Student Branch S. Pandey and Muskan. Thank you for your kind care!



#### **MOVE Puerto Rico deployment after Hurricane Fiona**

#### By Loderay Bracero Marrero

After hurricane Fiona, MOVE Puerto Rico members and the MOVE kits (MOVE-K) were deployed to assist the Red Cross disaster relief efforts (DR-823-23). This deployment started in mid-September and ended in mid-October 2022. Our IEEE members were deployed as Disaster Service Technology (DST) and Disaster Assessment Associates (DA). Several activities were conducted during the disaster relief: customer service for the volunteers (help desk), equipment inventory, and deployment of the kits for electricity supply, among others. All these tasks were completed in close collaboration with IEEE MOVE USA members who were deployed as DST managers in Puerto Rico.

Since the start, members at headquarters helped prepare and issue computers and cell phones to other Red Cross volunteers and personnel. From our kits, the multi-chargers were used to expedite the cellphones charging process. Also, as part of the customer service, assistance was offered to set up Red Cross accounts, hotspot connections, and other related technical support. This customer service was also offered outside the headquarters when other recovery locations were visited.

Members also helped in managing the Red Cross and MOVE-K inventory. For example, members received and shipped equipment, and tracked the inventory inside the Red Cross database. The disaster relief efforts also allowed us to label and inventory all the MOVE-K items using Red Cross codifications as an example. This allowed us to track items such as the power banks and solar chargers which were issued to several disaster assessment volunteers.

The electrical inverters and solar panels of the kits were deployed several times in different sites chosen by the Red Cross. However, they were needed in two locations due to unstable power: Toa Baja and Guayanilla. At Toa Baja, the recovery site was in an open space area and the electricity was provided from a nearby building. Hence, the kits were placed beside the tables where the recovery workers were receiving clients. The inverters sustained several laptops, cellphones, and fans at the recovery site in a power outage event. Also, at Guayanilla, the kits were deployed and tested. On this site, power banks and solar chargers were issued to other disaster assessment workers.

Additional tasks were conducted in close collaboration with the IEEE MOVE USA members. For example, our members served as interpreters translating from Spanish to English as local volunteers. Also, other DST members were trained to use the generators and solar panels. Finally, our DST members trained as supervisors organized and prepared recovery sites with the proper electrical and internet connections.





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#### **MOVE Puerto Rico deployment after Hurricane Fiona**

#### By Loderay Bracero Marrero

In summary, the DST associates and IEEE MOVE USA members' support of our team during the DR 823 was invaluable. IEEE MOVE Puerto Rico is excited and pleased to inform the addition of new team members during the deployment. Moreover, knowledge gained as trained DST supervisors and associates was important to the future developments of our program in Puerto Rico. Finally, the opportunity to test and deployed the kits in real situations showed the convenience of these kits. Our team is deeply in debt to all our IEEE volunteers, the Red Cross Puerto Rico chapter and IEEE MOVE USA, and the Weather team for their consistent support.

For more information and photos, please visit: https://move.ieee.org/puerto-rico/

Contact: move-puertorico@ieee.org



Members at headquarters preparing technological equipment to be issued.



Solar panels and inverters at Toa Baja, P.R.



Solar panels and inverters at Guayanilla, P.R.