

The IEEE MOVE truck is deployed to respond to hardest hit disaster areas that frequently have no power or 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

An unexpected series of tornados hit Kentucky in December. Red Cross requested MOVE to support their efforts – once again we were able to support using both trucks. Read about this effort later in this issue.

As COVID continues to be a challenge, procedures put into place have enabled the team to deploy safely. The MOVE truck is fully equipped with appropriate PPE and the volunteers are trained on appropriate protocols to operate in this environment. We are fortunate to have volunteers to go out in these conditions.

MOVE will be attending the Atlanta Science Festival's Exploration Expo on March 26, 2022. Information on this event can be found in this newsletter. Please join us.

MOVE teams are still looking for volunteers to support both trucks on both coasts. If you are interested in volunteering in any of these teams. please contact the team lead or Grayson Randall (g.randall@ieee.org)

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> .

Once again, a special section is included on MOVE Puerto Rico and India

MOVE 2019 ASAE "Power of A" Gold



IEEE Foundation

**Donor
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Program**

MOVE COMMUNITY
OUTREACH
AN IEEE★USA INITIATIVE

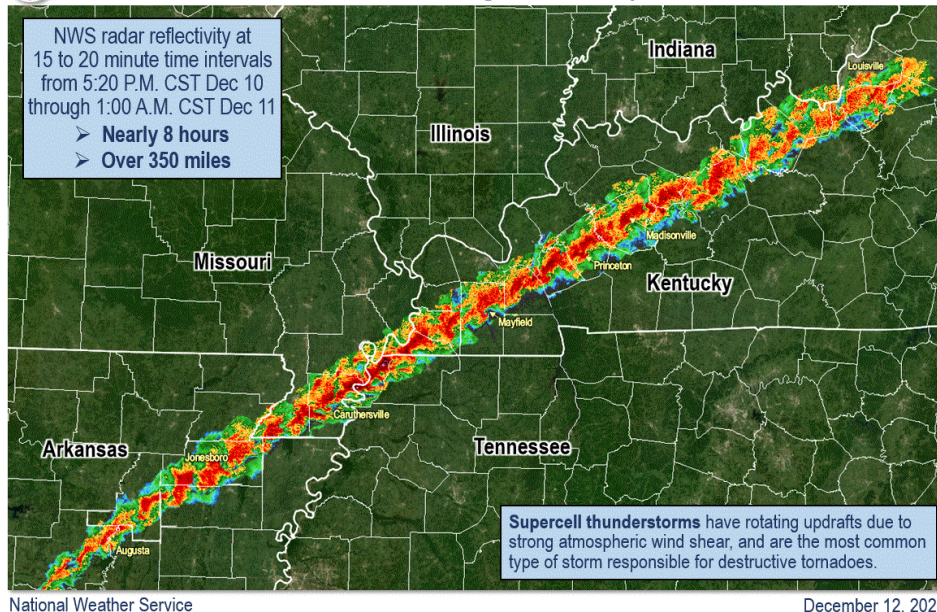
Mobile Disaster Relief with MOVE

Western Kentucky Tornado Deployments By Grayson Randall

On December 10, 2021, a violent, long-tracked tornado moved across Western Kentucky, producing severe to catastrophic damage in numerous towns, including Mayfield, Dawson Springs, and Bremen. The tornado was rated as an EF 4 with winds up to 190 mph. This was part of a tornado outbreak which included 71 confirmed tornadoes over multiple states.



December 10-11, 2021: Long-lived Supercell Thunderstorm



This is a composite image of NWS radar taken every 15-20 minutes showing the track of the supercell thunderstorms that traversed well over 100 miles in Kentucky and impacted communities such as Mayfield and Dawson Springs along the way.

On December 13th, 2021 MOVE-1 deployed to western Kentucky with Ira Armen and Grayson Randall. After a 2-day drive, the MOVE team was put into service supporting Red Cross activities in Mayfield and Dawson Springs. Activities included setting up communications links and power for Red Cross teams that were working in these areas. After a 2-week deployment, Ira returned home and Thomas Kimball filled out the MOVE-1 team.

On December 26th, 2021 MOVE-2 deployed to western Kentucky at the request of the Red Cross. David Sewell and Jay Diepenbrock responded with the truck. They were assigned to Bremen Kentucky where they provided communications support for Red Cross workers at this small town. Walt Burns flew to the scene in his first deployment. He was assigned to MOVE-2 to participate in service delivery.

Both teams spent Christmas and New Years deployed in western Kentucky with 450 other Red Cross volunteers. On January 4th 2022, MOVE-1 left Kentucky with Grayson Randall and Jay Diepenbrock. They arrived back in North Carolina on January 5th. On January 11th, MOVE-2 was released and also returned to North Carolina. David Sewell and Walt Burns returned with MOVE-2.

The damage we saw was truly devastating. Historic downtown Mayfield Ky was left in rubble on the ground. Both Dawson Springs Ky and Bremen Ky also had major damage in residential areas. So many people lost all their belonging and many lost their lives. The MOVE team is privileged to support the Red Cross operations that impact so many in need. These towns will take years to rebuild. The impact of the December 10th 2021 tornado outbreak will forever be a part of those communities.

Unusual Hurricane activity in December

Photos of the Devastation



Mayfield KY



Providing service in Dawson Springs, KY



MOVE-2 in operation at Bremen KY tornadoes



Mayfield KY



Dawson Springs, KY

Second time both trucks in service

Mobile Disaster Relief with MOVE

Meet David C Wright

I have been a member of IEEE and a Red Cross blood donor for more than forty years. IEEE and donating have run parallel, and I recently finished giving more than ten gallons of blood to Red Cross. (There is still a critical need for blood donations 800-RED-CROSS 800-733-2767) Now I have added Red Cross Relief efforts to my Red Cross work because of IEEE MOVE program.

My involvement with IEEE began after graduating UNC Chapel Hill with a dual degree in Physics and Radio, TV & Motion Pictures. I joined IEEE primarily as an educational opportunity reading SPECTRUM for the diverse articles. It was in collage that I also studied and passed the test for the FCC First Class Radio Telephone license, not to be confused with the Radiograph or Amateur license. Amateur radio would be an additional expensive hobby as I already had an expensive hobby in photography. I did build the classic Heathkit short wave radio receiver kit and set up many antennas and related equipment finding that radio and electronics was a primary interest.

At that time, with the FCC “commercial” first class license it almost assured work in radio and television. I began my working career mainly in broadcasting and cable. This included the design and construction of four studio sites, four broadcast transmission sites as well as addressing the computer and information technology aspects of broadcasting. I worked for decades for North Carolina Public Radio licensed to UNC Chapel Hill. I would often say the job of Chief Engineer/CTO/Director of Engineering, encompassed a vast set of duties, skills and knowledge. I would sometimes joke that the job covered transmitters to toilets, except 8-5 weekdays when I could call physical plant to respond. For the past thirty five years I have held a North Carolina General Contractors License with Telecommunications endorsement. The contractor license helped with the county building inspectors as I spent several years building my own home.



I built the house to “Energy Star” standards before there were “Energy Star” standards for residential construction. The license with telecommunications endorsement has helped in my consulting work over the years. This all has given me a broad background of talents to bring to the MOVE Program.

About fifteen years ago I started to be more involved in the IEEE section and local events. This included a Senior Upgrade Rodeo which led me to qualify for Senior Member status. I have taken the time to return the support by assisting as a reference in member elevation events. My long IEEE membership and work career rather unexpectedly qualified me for Life Membership.

My involvement with the IEEE MOVE program started in 2017 after an early 2016 near death event from Sepsis. After surviving the month in the hospital and many months of recovery I started my “gratitude tour” looking for ways to give back. The MOVE program was one area where I could apply my talents for the benefit to others. I started helping out with repairs, maintenance and upgrades of the MOVE Truck in Raleigh/Durham. Apparently my diverse background and talents was helpful and Grayson Randall for some reason thought I could/would/should be the Maintenance Team Lead. I may be the Team Lead, but it is the TEAM composed of diverse and talented members that keeps our program running. It is an honor to have the opportunity to work with these great talented individuals. If you have an interest in participating in MOVE Maintenance (residency near the Truck not required) please contact me at dcwright@ieee.org.

Hurricane Season typically ends in November

MOVE Teams support MOVE Operations By Grayson Randall

There are many IEEE volunteers required to support the MOVE mission. In this newsletter, we will highlight many of the support teams.

- Radio Team supports all radios on the truck
- Radio Club is a new “team” that will support disaster communications by amateur radio operators
- Maintenance team spends many hours keeping the truck in top condition and always ready for deployment
- Network team supports all the digital communications and digital devices on the truck
- Weather team is key to tracking storms and providing deployed teams with the latest updates
- Training team provides education for drivers, disaster deployment teams, and Stem/Outreach teams
- STEM/Outreach team supports our student/public education mission
- Disaster Deployment team supports deployments into disaster areas
- Communication Team updates our followers with the latest MOVE information
- Leadership team provides project management for the MOVE Program

As the MOVE Community Outreach Program is expanding to the western United States and in additional countries outside the US, we are always looking for more volunteers to support our mission. If you have an interest, please indicate your interest at the following website: [IEEE MOVE Volunteer Interest](https://move.ieeeusa.org/help/volunteer-interest) (<https://move.ieeeusa.org/help/volunteer-resources/>)

Contacts: USA Mission: Loretta Arellano
l.arellano@ieee.org

International mission: Mary Ellen Randall
merandall@ieee.org

MOVE STEM By Melody Richardson



The MOVE truck will do an outreach deployment to the Atlanta Science Festival's Exploration Expo on March 26, 2022. The Atlanta Science Festival is engineered by Science ATL and several community partners, including IEEE Region 3 and the Atlanta Section who sponsor the Curious Kids Zone at the Expo.

The Atlanta Science Festival consists of over 100 events scattered around the city of Atlanta. Participants can explore a variety of topics from coding and astronomy, the science of beer brewing, nature walks in Atlanta's forests, and science/art mashups.

The Exploration Expo is the culminating event of the Atlanta Science Festival. Thousands of curious kids and adults descend upon Piedmont Park to experience the wonder of science with 100 hands-on interactive science booths, live science demos, and shows from local organizations, universities, and companies. Attendees can experience everything from touching a human brain to building biological machines. There is something for everyone, and no one walks away from the festival disappointed at its offerings.

On Saturday, March 26 visitors will be able to tour the MOVE truck and get a unique look at the MOVE nerve center. Additionally, folks will get to meet IEEE volunteers, make a MOVE truck light up pin, and explore how technology improves our daily lives. So, if you are near the Atlanta area on March 26 – stop by Piedmont Park and join us for a fantastic day of science and STEM.

Want your IEEE Society to support MOVE?

Possibilities include (depending on level)

Sponsor a Joint STEM event

MOVE truck at your conference

Your Logo on MOVE web page

Facebook post featuring your society

Your Logo on the MOVE truck

The MOVE program is funded by donations to the IEEE Foundation “MOVE fund.” Help today!

leeeefoundation.org/move

For more information, contact merandall@ieee.org

MOVE partners with NSF project

By Karen Panetta

Rescue workers risk their lives everyday to respond to anthropogenic events and now, IEEE-USA members are using their skills to help protect those that protect us using state-of-the-art technologies. Dr. Karen Panetta, IEEE Fellow, Professor and Dean of Graduate Education at Tufts University's School of Engineering has partnered with the IEEE-MOVE initiative to utilize her expertise in imaging to help relief workers and first responders to safely identify hazards and victims that otherwise may be missed due to harsh environmental conditions, such as rain, fog, or smoke.

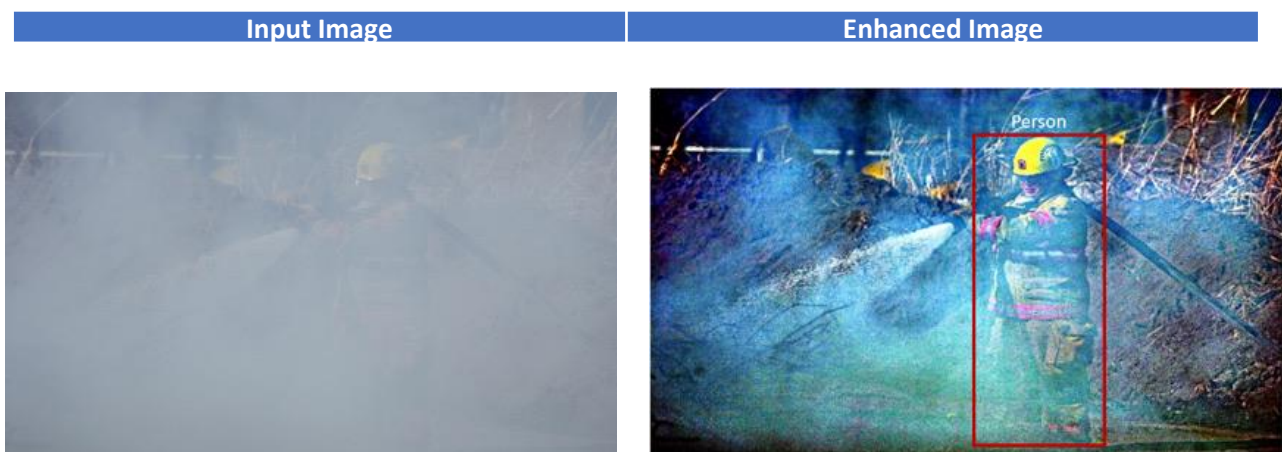
Mary Ellen Randall and Karen Panetta, both former IEEE WIE Committee Chairs, saw an opportunity for IEEE members to utilize their research skills and quickly deploy them to respond to the increasing frequency of devastating natural disasters in the U.S. Panetta and Randall collaborated on a successful National Science Foundation (NSF) Proposal through the NSF RAPID program, which helps respond and propel technologies for responding to natural disasters.

Panetta's technology is capable of using multiple sensor technologies including thermal, RGB cameras and artificial intelligence to create the best human perceptual images that can detect humans and hazards from dark, smokey, rainy or foggy images. Their work aids first responders and rescue workers to better conduct situational awareness in the aftermath of anthropogenic events, such as wildfires, earthquakes and hurricanes to help locate victims and protect rescue personal.

The first prototype is deployed on the IEEE-USA MOVE vehicle in conjunction with Red Cross relief missions. The success of this project was presented at the June 2021 meeting of the NSF Cyber-Physical Systems Principal Investigators meeting.

Panetta says, "There are so many ways for researchers to partner with IEEE-USA programs to create synergies that truly make an impact benefitting humanity and I am truly grateful to the IEEE-USA leadership and MaryEllen's team for taking the leap with me on this joint venture."

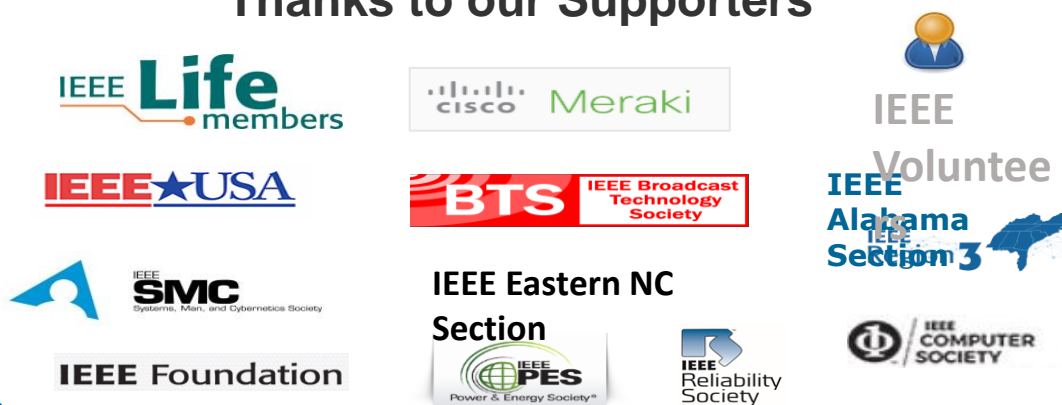
Using the algorithms developed by Karen's team, responders can see better in smoky or rainy conditions.



Thanks to the 2021 MOVE USA volunteers

Abhilash Trehan	Coleen Lawson-Taylor	Ira Arman	Logan Herrera	Randy Liang
Adrian Reid	Corey Ruth	Jack Frazier	Loretta Arellano	Ray Williams
AJ Burke	Daniel Czuhai	Jack Goldberg	Luis A. Tatis Morales	Rich Allen
Alan M Brown	Daniel Fuccella	James Conrad	Lyn Rose Gooden	Rich Pratt
Albert Lin	Daniel Merkl	James Gardner	Marc Apter	Richard Austin
Alon Newton	Dave Green	James Thompson	Mark Kethlaor	Richard Ford
Alvin Schultz	Dave Sundstrom	Jay Diepenbrock	Mark Smith	Roblyn Chisholm
Amit Das	David Bartlett	Jeff McWhirt	Mark Snyder	Rodney Radford
Andy Feldman	David Covert	Jessy Ayala	Mark Torres	Scott Doniger
Anitra Wilson	David Iams	Jill Gostin	Marlene Russell	Sharon Cowan
Anthony Campbell	David Macchiarolo	Joe Decuir	Marty Schulman	Shawn Stephens
Anupama Dhamala	David Sewell	Joe Lillie	Mary Ellen Randall	Sonia Doctor Small
Avinash Kachhy	David Wright	John Balsam	Melinda Brown	Stephen Kirby
Bill Craig	David Ziskind	JOHN Brickell	Melody Richardson	Steve Driessen
Bill Guzek	Decuir Joe	John McGuinness	Melvin Hayes	Steve Kemp
Bill Lovegrove	Dennis Driscoll	John Prigmore	Michael Cardinale	Steven Weldon
Bob Melville	Dennis Peck	John Yaglenski	Michael Grossman	Ted Hissey
Bob Frohman	Dennis Snell	Jonathan Cartwright	Michael Morey	Theo Gordon
Brian Greene	Douglas Tabor	Josephine Gayle	Michael Chavis	Thomas Bellarmine
Brian Page	Dustin Li	Joshua Smith	Mike Wilson	Thomas Clemons
Butch Shadwell	Eileen Davis	Justin Baba	Nathaniel Ortiz	Thomas Coughlin
Cecil Redway	Elec Gottfried	Karen Panetta	Neil Barrett	Thomas Kimball
Cedric Walker	Elizabeth Adams	Karene Forrester	Nicholas Dijkhoffz	Tim Forrest
Celestine Dalrymple-Collins	Eric Sheier	Karyn Connor	Nick Massetti	Tim Lee
Chad Edwards	Eugene Pentecost	Kate Duncan	Niten Ved	Tim Troske
Charles Moorwood	Frank Giannattasio	Kathy Hayashi	Obinwanne Chukwu	Todd McBride
Chris Brantley	Gora Datta	Kathy Land	Patrick Heffernan	Tony Campbell
Chris Farrell	Grayson Randall	Kwasi Gibson	Paul Cunningham	Walt Burns
Chris Lamb	Gregg Vaughn	Lancelot McCalla	Paul Goodson	William Ratcliff
Christopher Sutton	Hassaan Idrees	Lee Mari	Phillip Olson	Yiming Xie
Chuck Warner	Hope Munroe	Lee Welch	Ralph Russell	

Thanks to our Supporters

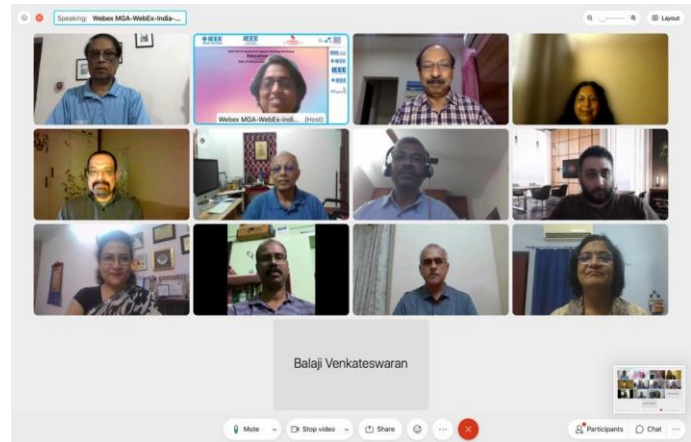
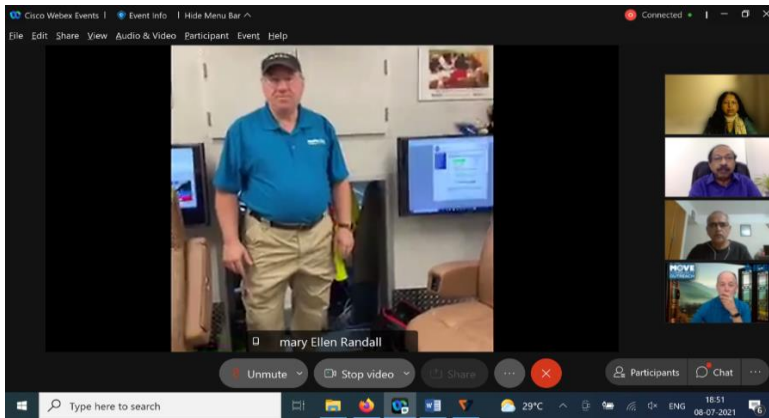


move.ieeeusa.org

MOVE Outreach India program is undertaken by IEEE India Council led by Dr.Suresh Nair and Ms.Sadhana Attavar late in the year 2021. Various functional teams are identified with leaders and volunteers across all 13 sections in India.

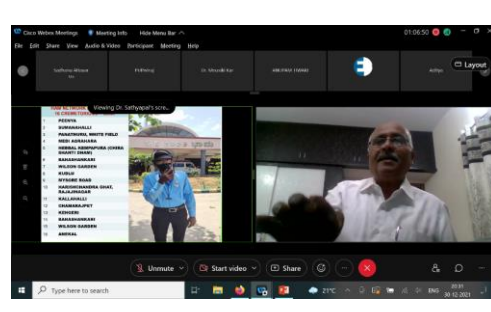
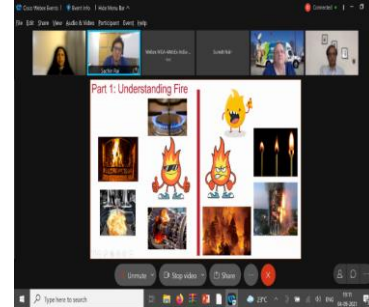
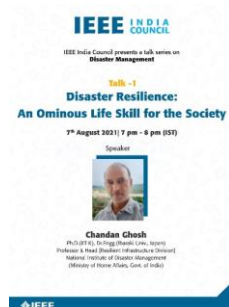
Launch of IEEE India Council MOVE Outreach India Program

The program was formally launched in India by IEEE India Council on July 8 2021 in the presence of Mr.Deepak Mathur Region 10 Director with the inaugural talk by Ms. Mary Ellen Randall Director IEEE MOVE Community Outreach Program followed by live demo of MOVE vehicle by Mr. Grayson Randall. The call for volunteers across IEEE India Council geography received an excellent response with more than 260 volunteers signing up. The volunteers were grouped into six teams namely Technology, Operations, Funding, Marketing, Education and Partner Relations covering all the important areas of MOVE.



Series of talks about Technology for Disaster Management

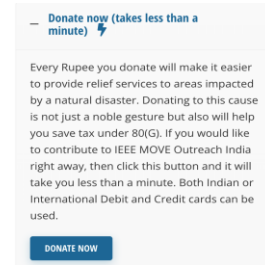
The Education team has been doing a fantastic job of disseminating information on disaster management through a series of talks.



The Technology team has identified all the key elements that would need to go into the MOVE truck with inputs from many experts who have engaged directly in disaster management.

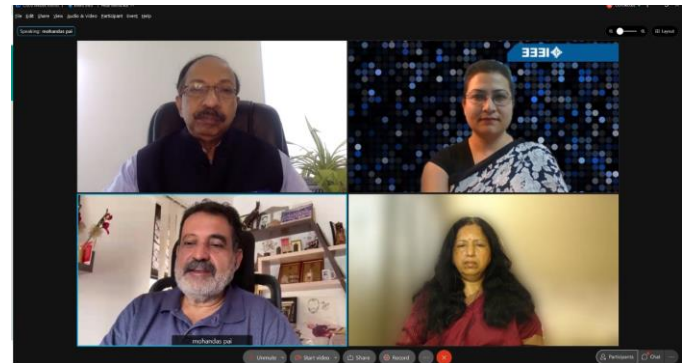
Logo and Website

The Marketing team has put together the brochure for MOVE Outreach India and worked with the MOVE International team to arrive at a geo-localized logo for MOVE. A dedicated [website](https://move.ieee.org/) has been put in place for this program. This also integrates with a payment gateway to allow donations to be received. The first couple of small donations have already come through this path.



The Funding team has been working hard to seek funds for this program. The Operations and the Partner Relations team have also been active and looking forward to getting their activities into top gear as the program starts accelerating.

India Council track on the theme Disaster Response: Preparedness, Relief and Recovery



Plan for 2022

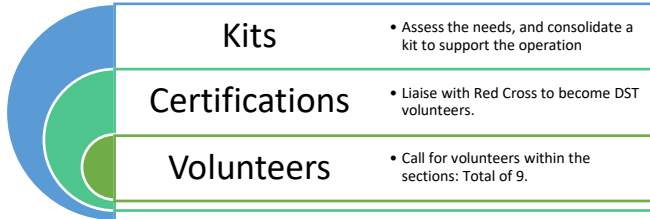
As we step into 2022, there are ambitious plans for the year with a single point agenda of rolling out the MOVE Truck by the end of the year. A renewed set of volunteers – existing and new – are expected to be in place in the first quarter. The second and third quarters will see the purchase of equipment and truck getting fitted out and ready. Training for volunteers is also planned. Contacts with partners will be established throughout the year. The truck is expected to be ready to deploy in the last quarter of the year.

Q1-2022	Q2-2022	Q3-2022	Q4-2022
Call for Volunteers Sponsorship packages CSR solicitation Funding to meet Q2 needs	Commence of purchase of equipment for truck.- Training for volunteers. Partnership reach-out	Purchase of truck and Get delivery of the truck with interiors done. Partnership reach-out Training for volunteers	Complete fit out of all disaster support equipment Ready to deploy truck

Disaster Response Kits in Puerto Rico

After some months and plenty of different processes, the Disaster Response kits arrived to Puerto Rico. These kits are portable and will help us supporting Red Cross' disaster response efforts with components that goes from Solar Energy to Cellphone chargers.

This completes three essential milestones to MOVE forward:



With this, the program is ready to focus on it next stage. The new initiatives are focused on:

- Next trainings required: IEEE Volunteers are getting traction within the Red Cross and are recognized as potential leaders. For it, Loderay has organized the cycle of Career Path mentoring meetings, so the volunteers can consolidate their positions, some of which are future supervisors within the organization.
- Media: It is important for the sustainability of the program to have a consolidated image and promote it. For it, the next step considers strengthening the program media presence and consolidate a marketing strategy for future fundraising opportunities.
- Communications: at this point, the kit includes components focused on Power. The objective is to also have options for communication in a near future, forming a small grid within the island.

Loderay Bracero will be leading the new initiatives in Puerto Rico, with the support of Jen Castillo from R9. This alliance is determinant to escalate the efforts to other countries that have already shown interest like Ecuador. For it, we are consolidating a procedure, so it can be more straight forward to keep expanding the program.

We are glad to be part of this initiatives, and we want to thank all the support we have been given by Mary Ellen and Grayson Randall, and by Mike Wilson.

First Deployment IEEE MOVE International: Puerto Rico By Jennifer Castillo

In the first weekend of February 2022, non-stop rains caused heavy floods in the north coast of the island with Toa Alta and Cataño being two of the most affected towns, receiving rain with nearly 16 in.

The Red Cross begun their assessment activities on February 6th, and due to the large number of areas affected, the local IEEE MOVE volunteers supported these efforts. As the Disaster Response Operation was classified as level 3, the number of volunteers required increased, leading to the first deployment supporting the Disaster Services Technology efforts in the two Customer Attention points established in these two towns, and the main operation in the local Chapter.

A total of 6 volunteers deployed for 5 days, supporting the Red Cross efforts to assist the affected families after this unfortunate disaster.



Many thanks to the Puerto Rico Team:

Abigail Teron, Andrea Valenzuela, Christian Figueroa, Francisco Carrero, Hector Colon, Jenifer Castillo, Lorena Ramos, Loderay Bracero, Magdiel Mojica