



**GLOBAL  
ENERGY ACCESS  
FORUM**  
ORGANIZED BY THE  
IEEE POWER ELECTRONICS SOCIETY



**EMPOWER**  
A BILLION LIVES

**EBL II Global Final  
19/20 March 2023  
Orange Country  
Convention Center (OCCC)  
Orlando, Florida  
Closed Event**

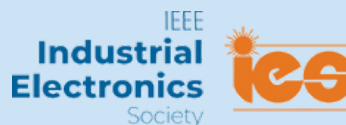
**IEEE Global Energy  
Access Workshop  
21 March 2023 at OCCC  
Co-located with the IEEE  
Applied Power  
Electronics Conference  
(APEC),  
Orlando, Florida**



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# About Empower a Billion Lives

## The Challenge

- Three billion people live in energy poverty, with nearly a billion people living without access to electricity and three billion people lacking access to clean cooking solutions. Access to energy is the foundation of modern life, can enable digital and financial inclusion, and improved livelihoods.
  - Decentralized solutions have emerged as a response to the shortcomings of the centralized grid but are being challenged in terms of sustainability, scalability, level of access and inclusiveness.
  - Furthermore, while access to electricity is making progress, providing access to clean cooking is lagging behind, resulting in 3.2 million deaths worldwide, more than HIV-related illnesses, malaria and tuberculosis combined.
  - Traditional grid extension methods have not been economically viable, and if successful, could result in >3.7 G-tons of additional CO2 emissions - a catastrophe! Similarly, philanthropic initiatives have been challenged in terms of sustainability and scalability.
  - Climate change and the global energy crisis bring a growing sense of urgency to this discussion. Rapid technology cycles and continued declines in the cost of PV solar, battery and transportation solutions have brought the energy system to the cusp of a transformation, with potentially cost-effective solutions that are also sustainable and climate-friendly. The energy access challenge is also an opportunity to leapfrog the 20th-century energy system and create an environmentally sustainable, economically viable, and socially inclusive energy ecosystem. The question is how to align technology innovation, policy planning and financial investments in order to get there.
- 
- Our Teams**



**New solutions are needed to enable improved livelihood and productivity using off-grid energy services.**

## About Empower a Billion Lives

- IEEE Power Electronics Society's 'Empower a Billion Lives' (EBL) Global Challenge to Crowdfsource Solutions to Energy Access aims to reduce technology and market risk for new solutions to energy access that are economically viable and environmentally sustainable, and prove out new business models and pathways that can rapidly achieve scale and impact.
- EBL I was lauched in 2018 and EBL II was launched in late 2021, together over 500 Teams from 70 nations, including 18 countries in Africa have participated. Student teams make up 25% of the initial entries.
- EBL II has invited teams who sucessfully included Field-Testing in an energy access community and student teams to the EBL II Global Final to present in a "shark tank" style their solutions and findings from Field-testing.
- Teams compete in one or more of the following tracks: Automation Centric, Enabling Technology, Productive Use, Decentralized, and Centralized Systems.

# The IEEE Energy Access Workshop

21 March 2023 | Orange County Convention Center, Orlando Florida

## Preliminary Agenda

8:00 - 8:30	<b>Registration and Continental Breakfast</b>
8:30 - 9:00	<b>Welcome and Introductions</b> <b>Democratization of Energy Systems in Energy Access Contexts (Stage Setting, Dr. Deepak Divan, Global Steering Chair, Director Center for Distributed Energy, Georgia Tech</b>
9:00 - 9:30	<b>Keynote Address: MENA Energy Access &amp; Transition, Husam Mohamed Beides, Energy Practice Manager, Middle East and North Africa Region, World Bank</b>
9:30 - 9:45	<b>Coffee Break</b>
9:45 - 10:10	<b>Session 1: Consumer education and behaviour change as a condition for scaling up—lessons from off-grid solar, Nana Asamoah-Manu, Operations Officer, International Finance Corporation</b>
10:10 - 10:35	<b>Session 2: EnDev perspective—15+ years of energy access in 20+ countries, Jan Cloin, Coordinator Energising Development, The Netherlands Enterprise Agency</b>
10:35 - 11:00	<b>Session 3: Energy Swaraj—energy by locals for locals, Dr. Chetan Solanki, IIT Bombay/Energy, Swaraj Foundation</b>
11:00 - 11:25	<b>Session 4: Innovation for Impact—scaling agri-food productive use, Silard Liptak, CTO, AGSOL</b>
11:25 - 12:30	<b>Panel: Next Frontiers in Energy Access—Scalability, Productivity and Inclusivity, Moderator: Dr. Jelena Popović, Empower a Billion Lives II Vice-chair,, University of Twente, Netherlands Enterprise Agency, Nana Asamoah-Manu, IFC, Silard Liptak, AGSOL, Ali Husain, Enphase</b>
12:30 - 1:30	<b>Lunch and Networking</b>
1:30 - 3:40	<b>Selected EBL Team Presentations</b>
3:40 - 4:00	<b>Coffee Break</b>
4:00 - 5:00	<b>Presentations of Empower a Billion Lives Global Final Awards</b> <b>Summary and Next Steps</b>
5:00 - 7:00	<b>Reception and Networking - Room 305B</b>

## About the Workshop

The IEEE Energy Access Workshop is organized in conjunction with the IEEE Empower a Billion Lives Global Competition and will include presentations by some of the winning teams and the award of \$500,000 in prizes. The workshop will convene experts from international organizations, the private sector, governments and academia involved in energy access and a cadre of technical experts from IEEE to explore technically, economically and socially viable solutions that can be developed and deployed at scale. The focus is on the next frontiers of energy access—reaching scale, increasing the level of access towards enabling access to clean cooking, and income generation through productive use of energy.

The workshop will be held in two distinct parts. The first, from 8:30 am to 12:30 pm (ET), will be held in a hybrid format—allowing a global panel and attendees to participate. The second half, from 1:30 pm - 5:00 will be held in person and live streamed by IEEE TV. The Reception from 5:00 to 7:00 pm will only be in person in Orlando.





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A BILLION LIVES

**IEEE Energy Access Workshop**  
**21 March 2023**

**Workshop attendance for invited  
participants is complimentary**

## About IEEE

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. Through its highly cited publications, conferences, technology standards, and professional and educational activities, IEEE is the trusted voice in a wide variety of technology areas.

## Contact Information

To contact Deepak Divan, Global Steering Chair of The Global Energy Access Forum and Empower a Billion Lives email [ddivan@gatech.edu](mailto:ddivan@gatech.edu).

To indicate your interest in attending the IEEE Energy Access Workshop in Orlando, Florida contact Jane Celusak, [j.celusak@ieee.org](mailto:j.celusak@ieee.org).



Team Support and Awards for EBL II at \$750,000. All Sponsor funds go directly to supporting EBL Teams. All administrative and organizational costs are borne by IEEE PELS and all related tasks are done by Volunteers.

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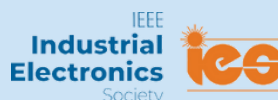


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