

22-23 January, 2019 - Seville www.ieee-ebf.eu.org

International Workshop and Competition on Universal Energy Access

- **3 Billion** people live in energy poverty, including **1,1 Billion** people without any access to electricity
- **95%** of utilities in the Sub-Saharan Africa cannot recover their operational and capital costs
- Only **1.8 million** people have tier 2 access (less than **200 Wh/day**) using off-grid electric services

**More of the same may not be the answer.
New strategies are required
to scale deployment a ~1000-fold!**



Empower a Billion Lives. Workshop and Competition

Empower a Billion Lives (EBL) is a biennial global competition organized by the IEEE Power Electronics Society to crowdsource innovation from around the world and accelerate deployment of energy access solutions. The competition's unique structure is agnostic to energy supply sources, technologies, and business models, allowing EBL to attract fundamentally new ideas and evaluate them holistically: for their technical excellence, entrepreneurial promise, and potential impacts that change the world.

The completion to be held in Sevilla, Spain, is one of 5 Regional Rounds in the EBL initiative (Europe, South Asia, Pacific Asia, Africa, and Americas). These regional rounds will be followed by months of field- testing, leading to the Global Final to be held in Baltimore, Maryland, US in September, 2019.

The EBL competitions are paired with conferences aimed to attract international technical, social and business talent and expertise, and to draw new synergies and conclusions in the field of universal energy access.



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On **January 22nd**, 18 teams from Africa and Europe will defend their projects in front of an international jury of experts, who will evaluate technical features, social impact and business model. In addition, all these teams will present their projects to attendees from **9:00 to 13:00** in an exhibition room at the **Loyola University Andalucia**.

Teams Competition Schedule

January 22nd 2019

08:00h	Welcome / Registration
08:30h	Off-Grid Solar Home System Fosera Solar Systems GmbH. GERMANY
08:55h	DC Interconnected Off-Grid Solar Home Systems Smart Grid Lab. University of Strathclyde. Glasgow. SCOTLAND
09:20h	Home Systems and Digital Platform for Accelerating Energy Access Candid Solar Systems. GHANA
09:45h	COFFEE BREAK
10:00h	Solar Power To Assist Small Farmers E-FAITOU. FRANCE
10:25h	Solar Home Systems With Efficient Appliances VITALITE Group. SENEGAL
10:50h	Energy Access, and Digital and Financial Inclusion, of Rural Households Baobab+. FRANCE
11:15h	COFFEE BREAK
11:30h	Cooking System with a Thermoelectric Generator Team EL/e. Eindhoven University of Technology. THE NETHERLANDS
11:55h	Powering Community Model for Sustainable Development TEAM Model Village. NIGERIA
12:20h	Modular Power System Based on USB DC Opportunities R&D. THE NETHERLANDS
12:45h	The Solar Tree Société Ivoirienne de Gestion Urbaine SARL CÔTE D'IVOIRE
13:10h	Buffet Lunch
14:15h	Battery Pack for Solar Home System Solaris Offgrid. SPAIN
14:40h	Electricity and Gas Cooking Production by just Adding Water Xigma. BENIN
15:05h	Modular Solar Home and Business Energy Systems SolarWorX. GERMANY
15:30h	BREAK
15:55h	Solar Hospitals REDEX International GmbH – STEAG Energy Services GmbH. GERMANY
16:10h	Smart PV Recycled Container Jua Energy. ALGERIA
16:35h	Solar Irrigation Systems Comitato di Collegamento di Cattolici per una Civiltà dell'Amore. ITALY
17:00h	BREAK
17:15h	Community Solar Energy Platforms Sahelia Solar. BURKINA FASO
17:40h	The Utility in a Box Darway Coast Ltd. NIGERIA

IEEE Empower a Billion Lives is a recurring competition to foster interdisciplinary innovation in the global community to develop and demonstrate solutions to electricity access that are designed to scale, regionally relevant, holistic, and leverage 21st century technologies that feature exponentially declining prices. The competition is agnostic to energy sources, technologies, business models, and will primarily evaluate potential impact and ability to rapidly and sustainably scale the solutions to a Billion customers.



Competition Tracks

	Commercially available solutions	Emerging solutions
Track 1 Decentralized models	Track 1A For example, solar home systems, pay-go systems	Track 1B For example, new household-level ideas that may interconnect
Track 2 Centralized utility models	Track 2A For example, company owned mini- and micro-grids	Track 2B For example, top-down solutions with a system operator

The Awards Lunch-Banquet will be held at **Abades Restaurant, Sevilla**. Please, visit <https://ieee-eb1.eu.org/venue/> for further information.

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The **International Workshop on Universal Energy Access (EBL-Europe)** to be held in Sevilla, Spain on the 22nd and 23rd of January, 2019 is a great opportunity for learning more about trends, policies and innovative solutions addressed to provide universal energy access to many people living in vulnerable isolated communities across the world. Moreover, the workshop will allow all the attendees to get in touch with each other and have some nice time together to debate and share experiences, which we hope will result in further synergies, collaboration and projects.

Workshop and Competition Program

January 22nd 2019

08:00h	Welcome / Registration
08:30h to 19:00h	Projects assessment, evaluation and exhibition Dialogued presentations and exhibitions
	BREAK
20:00h	Cocktail Reception and All Projects Exhibition Welcome reception by Juan Espadas Cejas, Major of Sevilla

January 23rd 2019

09:00h	Welcome / Registration
09:30h	Opening speech Carlos García, Vice Chancellor for Research at the University Loyola Andalucía
9:40h	Energy poverty in Africa. Facts, targets and policies François P. Kabore, S.J. - Director of the Center for Research and Action for Peace in Cote d'Ivoire
10:05h	Policies, trends and regulations toward universal energy access Antonio Soria, Head Climate, Energy & Transport Economy, JRC, European Commission
10:30h	Policies toward a global sustainable energy future José Domínguez-Abascal - State Secretary for Energy – Ecology Transition Ministry of Spain
10:55h	BREAK
11:30h	Sustainability of energy models and universal energy access Ignacio Pérez Arriaga, Professor, MIT Energy Initiative and IIT Univ. Pontificia Comillas
11:50h	Electrification models and projects in isolated communities Ricardo Perez, Head of Tech. Portfolio and Sustainable Project Development, Enel
12:10h	Enabling technologies for universal energy access Francisco Ramos, Innovation Manager, Schneider Electric
12:30h	Micro/mini-grids and decentralized utilities: a cost effective solution Miguel Cuesto, R&T engineer specialist, ABB
12:50h	Information and communication technologies to palliate energy poverty Manuel Ventura, COO Int, Division & Business Dev, Director, Wellness Telecom
13:15h	Awards Lunch-Banquet Announcement of Competition Winners
15:00h	Grand award project presentation
15:20h	Decentralized model, commercially available solution award project presentation
15:40h	Decentralized model, emerging solution award project presentation
16:00h	Centralized model, commercially available solution award project presentation
16:20h	Centralized model, emerging solution award project presentation
16:40h	Best student team project presentation
17:00h	Closing Remarks



Venue, hotels and travel information

The EBL-Europe workshop and competition will be held at the **Carriage Museum of Sevilla**, located at the city center. Please, consult the EBL-Europe website for further information about hotels, travelling and entertainment. <https://ieee-ebl.eu.org>

Registration

Registration opens on **15th November 2018**.

The registration fee is **100 €**.

Registration link: <https://ieee-ebl.eu.org/registration/>

The registration fee covers:

- entry to all workshop sessions
- entry to the project exhibitions
- workshop bag with program and materials
- coffee break during the workshop
- entry to the Awards Lunch-Banquet
- entry to the Cocktail Reception
- farewell drink

Contact info at ebl.europe@uloyola.es

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