

He received his PhD degree in 2021 at university of Douala. His research interests include smart grid, electrical power network, renewable power generation, artificial intelligence and deep learning. He can be contacted at email: [camillembey@yahoo](mailto:camillembey@yahoo) .

REIc currently operates in Sabongari, located in the Northwest Region of Cameroon. REIc will use the lessons learned from Sabongari to provide clean and reliable electricity in five nearby villages using ISV's SunBlazer type 2kW ...

In this paper he discusses the essential technological requirements of a smart grid, which are: Smart Meters, Information and Communication Technology, Advanced Demand-Side Management, Virtual Power Plant, Distributed ...

Smart grids have emerged as a key technology in the quest for energy efficiency and sustainability. This review provides a comprehensive analysis of the impact of smart grids on energy efficiency, highlighting key findings, challenges, and future directions. Smart grids leverage advanced sensing, communication, and control technologies to optimize the generation, ...

As the first step to establish bespoke recommendations for smart grid and smart meter deployment in Central Africa, the Electricity Sector Regulatory Agency of Cameroon (ARSEL), undertook since 2012 in Cameroon a number of ...

From the experience of several industrial trials on smart grid with communication infrastructures, we expect that the traditional carbon fuel based power plants can cooperate with emerging ...

Towards a self-healing, fully automated grid. Smart and embedded systems that combine distribution management systems, advanced metering infrastructure and data from substation gateways to shape the grid similar to the internet, with the ability to self-diagnosis and self-healing - that's the vision of many in the smart grid industry.

Smart grids represent a significant leap from traditional power grids, thanks to their ability to integrate cutting-edge technology and sophisticated systems. Smart grids use IoT sensors and smart meters to constantly monitor energy flows, enabling faster response to outages and inefficiencies by making energy management more precise.

A smart management of hydropower, combined with solar and wind energy, can provide the flexibility needed to power West Africa and at cheaper cost than using natural gas, according to a simulation ...

A classical UQPC is constituted by two power conditioners, connected in series and shunted with the power grid, and sharing a common DC-link. In a smart grid scenario of operation, a UPQC will be fundamental for compensating power quality problems, also contributing to improving the efficiency of the electrical grids from a global perspective.

1.1 Emerging smart grids. A smart grid represents an improved electrical grid system employing digital communication technology to oversee, assess, manage, and convey information throughout the supply chain from utility providers to consumers in a manner that is more efficient, dependable, and environmentally sustainable [] integrates modern information ...

Why smart power grids are creating a bigger cyber security risk . Cyber security challenges in smart grids. Because the smart electrical grid is predicated on online communications, it opens up new vulnerabilities to cyber-attacks - in addition to any physical threats the grid already faces. This problem is exacerbated by the sheer size of a ...

This article comes as a contribution to the development of a specific roadmap with the intention to transform the RIS into a smart grid, based on examples experimented in other countries, surveys, interviews with resource people and the master plan of energy development in Cameroon. To set up this roadmap, an audit of the current network reveals many dysfunctions ...

Smart mini- and micro-grids: Mini-, and especially micro-, grids with high shares of renewable energy are generally complex to implement, primarily because of fluctuating generation and a low load factor. The task of maintaining adequate power quality becomes a challenge, for example due to spikes associated with the starting current of motor ...

Renewable Energy Innovators Cameroon (REIc) is a social enterprise based in Cameroon. REIc's mission is to improve the lives of those in off-grid communities by providing renewable energy. This goal aligns with the objectives of IEEE Smart Village (ISV) to sustainably develop off-grid energy- deprived rural areas of the world.

Smart grids provide more reliable power, improving the overall energy service. Prosumers, using smart meters and communication systems, now engage in power trading, capitalizing on green energy production. This accelerates return on investment and offers profit potential within regulatory guidelines. Demand response programs further showcase ...

Web: <https://solar-system.co.za>

