

***** SANDRINE MUBENGA,PE,MSEE**

In 1997, while she was between life and death, Sandrine Mubenga decides to dedicate her life to science to find solutions to the immeasurable power problems ravaging Africa. As a result of this painful experience, she decides to study Electrical Engineering at the University of Toledo in the United States. It was in 2009 that her genius explodes when she developed a hybrid car runs on hydrogen and does not pollute. Today, Sandrine is the CEO and Founder of "SMIN Power Group", a company that promotes the use of renewable energy. Meet the Engineer, wife, and mother of three who proudly represents Africa worldwide.



BIOGRAPHY

Ngalula Sandrine Mubenga, PE, MSEE, was born in Kinshasa, in the Democratic Republic of the Congo (DRC). As a daughter of a United Nations diplomat she lived in DRC, Belgium, France, Senegal, and in the USA, and she fluently speaks Kikongo, Lingala, French, and English. Sandrine is passionate about finding sustainable solutions to provide energy to people so they can better their lives.

Sandrine is the **founder and Chief Executive Officer of SMIN Power Group** which has offices in the DRC and in the USA. SMIN Power Group is a private company specializing in providing renewable energy solutions-particularly solar- from conception, design and installation.

Currently, Sandrine is the **Electrical Engineering Manager at the University of Toledo, USA where she manages the Building Automation Team, and assists in managing the yearly \$15 million utility budget.**

Sandrine is a registered Professional Engineer (PE) in the state of Ohio, USA. She has over 10 years of experience in renewable energy systems design and integration, electrical distribution and protection, arc flash mitigation, energy management, and construction management. She holds her Bachelor and Masters (MSEE) degrees in Electrical Engineering from the University of Toledo where she is currently pursuing a doctorate degree in the same field.

While pursuing her Master's Thesis, Sandrine developed a fuel cell system for electric vehicle and a solar powered hydrogen generating station. Her work and dedication earned her several awards and honors including the University of Toledo College of Engineering Most Outstanding Thesis Award and the 2010 Young Engineer of the Year Award by the Institute of Electrical and Electronics Engineers (IEEE) Toledo Section- USA.

HYBRID VEHICLE

"Mubenga demonstrated the feasibility of renewable energy technologies. She developed a hybrid electric vehicle by incorporating a hydrogen fuel cell. The car uses hydrogen as a fuel and direct current. This is a car that does not pollute and whose only waste is water. Indeed the fuel cell uses hydrogen gas and air to produce direct current. This current is then used by an electric motor that turns the wheels of a car. Then, in order to produce hydrogen for the hybrid car, Mubenga also developed a hydrogen generating station that splits water into hydrogen and oxygen. The hydrogen station is powered by solar power and does not pollute. This research was funded through a grant from the Ohio Department of Development and the Department of Energy.



SHE CREATED SMIN POWER GROUP

SMIN Power Group provides affordable electricity for communities using renewable energies (hydroelectricity, solar, fuel cell, biomass, wind, etc). We specialize also in Engineering Consulting, Project Management and Energy Management. SMIN Power Group, was founded by Mubenga. It is registered in the USA, in the State of Ohio since 2011.

In 2013, SMIN Power Group expanded its presence in Africa, through the establishment of its branch SMIN Power Group Asbl. The office is located in the Democratic Republic of Congo, Kinshasa/Gombe. Below is a picture of SMIN Power Group Technicians installing a hybrid solar photovoltaic system for a community in Kinshasa.



SMIN Power Group technicians installing a solar system in D.R.Congo.

