Abstract Template

Abstract Title: Design of biofuel production units from Jatropha curcas

Boris Mouako Djeumako (National School of Agro Industrial Sciences, Ngaoundere)

Abstract (not more than 300 words)

The *jatropha curcas* has been identified as an oleaginous plant with an oil content of about 45%. Different studies have shown that a transesterification of this oil makes it possible to obtain biodiesel. The project involved the design and manufacture of an oilseed press and the design of winnowing equipment and a transesterification unit to convert Jatropha into biodiesel. Seeds of *jatropha curcas* selected from the northern regions of Cameroon as part of the ESA project were distributed to farmers in Ngaoundere to popularize this plant in Adamaoua The main long-term objective is the establishment of a biofuel pilot unit; this unit will be duplicated across Africa to contribute to bridging the energy deficit of our continent, through this renewable energy source. In the same way, it will contribute to the reforestation of the continent, especially in the arid zones. In perspective we also plan the design and manufacture of fireplaces adapted to this fuel to offer rural women an alternative to the use of wood for cooking as is customary in Africa.

Keywords— *Jatropha curcas, Biofuel, Design, Production unit,renewable energy*

Professional Biography (100-150 words)

Mouako Djeumako Boris is a technology enthusiast, Engineer in the field of Industrial Maintenance and Automation, who has set himself the goal of designing and making available to African agriculture technologies adapted to the socio-technical context in order to enable farmers to increase the value chain and ensure the good health of consumers. He is currently an engineering student at the National School of Agro Industrial Sciences and the Co-founder & CEO of AfroGreenTech where he conducts and implement innovative research in the fields of hybrid power supplies that can combine biogas with solar energy and optimize the energy efficiency of equipment and buildings thanks to smart systems. Award of third best project best project earned at the Sumit 2018 organized by ITMO University in Saint Petersburg.



Email Id: mouakoworld@gmail.com

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