



Project no: 963530.



Project Summary

Project Title: SOLAR INDUCEed Domestic Clean Efficient Cooking and Refrigeration for Off-grid Applications in Africa



Summary:

SOLAR INDUCEed will develop innovative solutions for low-cost and feasible domestic cooking and refrigeration that will be powered by solar energy. The proposed research possesses novel technical solutions and can significantly affect the quality, cost, environment of domestic cooking and refrigeration, compared to traditional ineffective cooking approaches, such as burning firewood, charcoal, biomass, etc. The system will integrate two sub-units: **1)** innovative low-power, low-cost induction cooking unit with improved efficiency for energy consumption specifically developed for off grid operation and powered by solar photovoltaic (PV) panels, as well as improved robustness for working in a low power supply quality environment and **2)** solar heat-powered refrigeration system that will include variable size refrigerator compartment with modular and replaceable hydrogel-based elements with the capacity to provide active refrigeration over the day and passive refrigeration over the night.



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Partners:

- The British University in Egypt (BUE): Partner, Egypt.
- Copreci, S. Coop. (COPRECI): Coordinator, Spain.
- University of Northumbria (UNN): Partner, UK.
- Enugu State University of Science and Technology (ESUT): Partner, Nigeria.
- S&P Global Resources Nigeria Limited (SPG): Partner, Nigeria.
- Tshwane University of Technology (TUT): Partner, South Africa.
- Walter Sisulu University (WSU), South Africa: Partner, South Africa.

Funding Agency in Egypt: ASRT