



Invitation



UNIVERSITY of GUYANA



The University of Guyana
in collaboration with
Arizona State University, School for the Future of Innovation in Society
presents

**A PHD PROSPECTUS DEFENSE
UNDER THE UG-ASU ENVIRONMENTAL ACTION IN COMMUNITIES
ADVANCED ACADEMIC RESEARCH PROGRAMME**

**UG'S FACULTY OF ENGINEERING AND TECHNOLOGY ADVANCED
SCHOLAR**

MAHENDRA KANHAI
will defend his dissertation prospectus

**ALLEVIATING ENERGY POVERTY: TRANSFORMING
GUYANA'S INDIGENOUS COMMUNITIES**

**TUESDAY, MARCH 15, 2022
10:00HRS AZ TIME [13:00HRS GUYANA TIME]**

Click here to join via Zoom: <https://asu.zoom.us/j/3640900497>

In-person: Room 280 Interdisciplinary B Building (Arizona State University)
Lecture Room 1 CIT Building (University of Guyana)

Supervisory Committee
Dr. Nalini Chhetri, Co-Chair
Dr. Gary Dirks, Co-Chair
Dr. Ellen B. Stechel
Dr. Clark Miller

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Abstract

Energy poverty is directly affecting the socio-economic development of many persons and communities globally. This research will explore the impact of energy poverty on the Wakapoa Indigenous Community of Guyana. The investigation will be guided by four questions – 1) Can small-scale concentrated solar power systems adequately support both domestic and commercial loads economically? 2) Can biomass be an alternative energy source for power generation in Guyana's remote villages? 3) What social value can be realized from the energy system as per Wakapoa's context? and 4) What governance systems can be considered to ensure a sustainable energy ecosystem? The convergent methods research design will be utilized which integrates qualitative and quantitative data. An inclusive process of gathering current and future load data will employ 50 surveys and 10 focus group interviews that will target community residents and specialists. The data gathering process will also seek to understand various aspects of energy application and research considerations related to adding social value and governance systems that can enhance the community's socio-economic development. This research expects to propose solution scenarios that can alleviate energy poverty while adding social value that positively affects the livelihood and wellbeing of community residents at the margins.

Keywords: CSP, biomass, energy, development, Guyana