

RESEARCH GRANT WON

Award Type: Distinguished International Associates (DIA) – Round 2.

This is awarded by Royal Academy of Engineering (RAE) under the Distinguished International Associates – Round 2 programme. RAE is incorporated by Royal Charter of 3 Carlton House Terrace, London SW1Y 5DG, Registered Charity 293074.

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Collaborating Unit of UNESWA and Government Agency championing the research
ICT Innovation Centre in FOSE, UNESWA and Centre for Financial Inclusion, Eswatini

Grant Reference: DIA-2022-178

Value: £ 10,000

Grant Period: 2022 – 2024

Title of Research: Re-engineering Financial Inclusion for Sustainable Economic Development in the Kingdom of Eswatini.

Abstract: In order to harness the power of engineering to build a sustainable society and inclusive economy in the Kingdom of Eswatini, it is imperative to develop a reliable and dependable Financial Inclusion (FI) scheme for citizens and businesses that will expand access to financial services, contribute to the economic growth and development of the country. FI is the availability and equality of opportunities for individuals, households and businesses to access financial products and services at an affordable rate and at appropriate time. FI is identified as a key indicator of inclusive growth in governance and the schemes align with six out of the seventeen goals of the United Nations Sustainable Development Goals (UNSDG) and main objectives of the International Labour Organization (ILO) as instruments for promoting economic growth and sustainable development. Application of Machine Learning engineering (MLE) algorithms to FI dataset present immense possibilities for FI strategies, and this is a missing gap in Eswatini that will be filled with this research project. This project will adopt machine learning approaches to develop a financial inclusion system using the FI dataset extracted from Eswatini's financial inclusion scheme. To achieve this, the project will use several approaches including sensitization and awareness programs, workshops, training, attachments and industrial collaboration to promote financial products and services and enhance financial marketing. The result of the proposed machine learning based financial inclusion system will potentially assist Eswatini to provide and promote financial products and

services in building sustainable society for inclusive economic growth, poverty reduction and employment creation. This project will contribute significantly in several scientific researches that involve harnessing the power of engineering to build an inclusive economy and a sustainable society that works for everyone. The proposed system will strengthen the economy by providing policymakers, stakeholders and financial partners with effective ways of managing financial services to increase investments. This will help them to make informed decisions on financial inclusion. This software will assist the government, frontline workers and financial managers to automatically monitor the financial inclusiveness of various households as well as Micro, Small and Medium Enterprises (MSMEs) in the four regions of Eswatini. The system will help to generate comprehensive, accurate and reliable reports that will aid stakeholders and policy makers to design and implement programs that will expand financial inclusion in Eswatini