

# Rhydal Esi Eghan

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PMB, Mathematics Department, KNUST, Kumasi

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“when you finally make it, teach others how to make it”

## Education

### Kwame Nkrumah University of Science and Technology (KNUST)

Math Dept., KNUST

PHD SCIENTIFIC AND INDUSTRIAL MODELING

2018-June 2022

- Got Norwegian Scholarship through the Petroleum Letters

### Kwame Nkrumah University of Science and Technology (KNUST), National Institute for Mathematical Science,

Math Dept., KNUST

MPhil SCIENTIFIC AND INDUSTRIAL MODELING

2014-2017

- Got Norwegian Scholarship through the Petroleum Letters,.. for the period

### Kwame Nkrumah University of Science and Technology (KNUST)

Kumasi

BSC. MATHEMATICS

2010-2014

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## Area of Expertise

COMPUTATIONAL FINANCE

- Pricing of Financial Derivatives
- Numerical Functional Analysis: Wavelet Techniques
- Stochastic modelling with applications in finance

## Skills

**Programming** R, Python, LaTeX, Matlab

**Web, Database Management** HTML, JavaScript, PgAdmin

**Languages** English

## Experience

### Math Department, KNUST

Kumasi

LECTURER

01.May2022-date

- Lecturing Mathematics courses
- Supervisor: Undergraduate and Postgraduate Research

### Math Department, KNUST

Kumasi

ASSISTANT LECTURER

Nov. 2021 - May2022

- Lecturing Mathematics courses
- Supervisor: Undergraduate and Postgraduate Research

### Association of Ghanaian Women in Mathematics

Ghana

GENERAL SECRETARY

Jan,2022 - Present

- Organisation of Meetings
- Effective records and administrative works

### Pre-MEST

Kumasi

WEBDEVELOPMENT PROGRAMMING STUDENT

10 weeks, 2021

- Learn general web design and web development

## Publication

**Time-Frequency Coherence and Forecast Analysis of Selected Stock Returns in Ghana Using Haar Wavelet** *Journal of Advances in Mathematics and Computer Science*

RHYDAL ESI EGHAN, PETER AMOAKO-YIRENKYI, AKOTO YAW OMARI-SASU, NANA KENA FRIMPONG

(2019), 30(5),1-12

**On the Study of Dynamical Model of Moods Pertaining to Etching Behavioural Patterns** *European Journal of Academic Essays*

OBENG-DENTEH WILLIAM, KYEI JOHN, EGHAN ESI RHYDAL

(2014), 1(7):63-69.

## Honors & Awards

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### INTERNATIONAL

23July-05Aug.2023 **SUMMER INSTITUTES BIO-STATISTICS**, Observational Data Analysis

*University of Washington, Seattle*

23July-05Aug.2022 **SUMMER INSTITUTES BIO-STATISTICS**, Big-Data Analysis

*University of Washington, Seattle*

### DOMESTIC

May 2022 **PhD Scientific Computing and Industrial Modeling**,

*Nation Institute for Mathematical Sciences*

June 2017 **MPhil Scientific Computing and Industrial Modeling**,

*Nation Institute for Mathematical Sciences*

July 2014 **Bsc. Mathematics**,

*KNUST*

## Presentation

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### Ghana Science Association, Monthly Colloquium

*Online*

SPEAKER

28.Feb.2025

- Talk on Handling Missing Data

### Heidelberg Laureate Forum Conference

*New University, Heidelberg*

POSTER PRESENTATION

25-29.Sept.2023

- Pricing of European Options with Legendary Wavelet Technique

### Weekly Steam Heroines Talk

*Online*

GUEST SPEAKER

19th August.2022

- GIRLS FOR TECH AND INNOVATION-AFRICA:Uganda- KAMPALA (How STEAM Education can BOOST our Educational System)

### Nims Conference

*KNUST, IDL Conference Center*

PRESENTER

Nov. 2017

- Correlation Analysis of Selected Ghanaian Stocks with Wavelet Coherence Technique

## Seminars & Conferences

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### INTERNATIONAL

#### MFO Workshop

*Oberwolfach-Germany*

PARTICIPANT

01-06 Oct.2023

- meeting of young researchers in financial mathematics

#### Heidelberg Laureate Forum Conference

*Heidelberg-Germany*

PRESENTER

23-29 Sept.2023

- meeting of laureates and young researchers in math and computer science

## ICTP/Workshop on Scientific Use of Machine Learning on Low-Power Devices: Applications and Advanced Topics

Online

PARTICIPANT

17 - 21 April 2023

## Future of Science Conference

Africa Institute for Mathematical  
Science(AIMS), Rwnada

PARTICIPANT

July. 2019

## DOMESTIC

### Indaba Ghana Conference

PARTICIPANT

University of Ghana, Legon

03 Sept-09 Sept. 2023

Africa young research in Machine Learning

### UNESCO Recommendation On Science And Scientific Researches

Amonizer Conference Center, KNUST

PARTICIPANT

17th Nov. 2022

### Organisation for Women in Science for Developing World (OWSD)

KNUST,Ghana

PARTICIPANT

Nov. 2018

### Nims Conference on Scientific Computing and Industrial Modeling

PRESENTER

KNUST, IDL Conference Center

Nov. 2017

- Correlation Analysis of Selected Ghanaian Stocks with Wavelet Coherence Technique

### Stochastic Optimal Control and Application (SOCA-workshop)

Africa Institute for Mathematical  
Sciences(AIMS)-Ghana

PARTICIPANT

Aug. 2017

### Stochastic Application, Research Training (START-workshop)

Africa Institute for Mathematical  
Sciences(AIMS)-Ghana

PARTICIPANT

Feb. 2017

## Committees

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2024,2025 **Member**, E-learning Ghana Conference:Planning Committee

KNUST

2024 **Member**, Ghana R Conference:Planning Committee

KNUST

2023 **Member**, E-learning Ghana Conference:Planning Committee

KNUST

2023,2024 **Member**, International Day of Mathematics Celebration

Math.Dept,KNUST

2023,2024 **Secretary**, Visibility Committee

Math.Dept,KNUST

2022 **Member**, Health and Safety Committee

COS-KNUST

2022-Date **Assistant Seminar Coordinator**, Math Dept. Postgraduate Seminar

Math.Dept,KNUST

## Extracurricular Activity

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### Olam Cocoa Processing

Kaase Industrial Area, Kumasi

PANEL MEMBER

11th February. 2025

- International Day of Women & Girls in Science, Panel Discussion: Unpacking Stem Careers:Her Voice in Science

### E-learning Center

KNUST

TRAINER

8th -9th,21st-23rd. January. 2025

- Training KNUST Faculty Members on Online Item Writing for Learning Management System

### Girls in Mathematical Sciences Program (GMSP)

African Institute for Mathematical  
Sciences-Ghana -Ghana

TUTOR

25th-30th November. 2024

- Tutor for mini-course: Quantitative Finance

## Outreach , IDM 2024

SPEAKER

Sensitize student on the fan of mathematics in their curriculum

*Kumasi Anglican Senior High School*

*14 May 2024*

## Outreach , IDM 2023

MEMBER

Advocate the relevance of mathematics studies offered at such level n beyond . And it relevance in societal development and in every day life

*KNUST Senior High School*

*14 May 2023*

## References

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### Rev.Prof William Obeng-Denteh

*+(233) 240516747*

HEAD OF DEPARTMENT DEPARTMENT OF MATHEMATICS KNUST

### Dr. Peter Amoako-Yirenkyi

*+(233)501634391*

SENIOR LECTURER DEPARTMENT OF MATHEMATICS KNUST

### Dr. Yaw Akoto Omari-Siaw

*+(233) 246289226*

SENIOR LECTURER DEPARTMENT OF MATHEMATICS KNUST

### Dr. Gaston Edem Awashie

*+(233) 556088720*

LECTURER DEPARTMENT OF MATHEMATICS KNUST