



RESEARCH AND GRANT INSTITUTE OF GHANA

THREE MINUTE THESIS COMPETITION



REPORT OF THE MAIDEN 3-MINUTE THESIS/RESEARCH COMPETITION

ABOUT REGIG

REGIG is a non-governmental organization dedicated to promoting the generation, dissemination and utilization of quality and innovative research to facilitate the socioeconomic development of Ghana and to contribute to global scientific discourse. The REGIG is committed to partnering with both national and international institutions and individuals to stimulate, facilitate, demand, and celebrate the highest standard of excellence in research in Ghana.

CORE ACTIVITIES

The core activities of REGIG are grouped into four main Departments:

Department of Grants and Scholarships:

This Department funds competitive research projects.

Department of Knowledge and Technology Transfer:

This Department bridges the gap between the research community and public, thereby promoting research uptake.

Department of Research and Academic Awards:

This Department celebrates research excellence via research and academic awards

Department of Research, Public Policy & Advocacy: This Department provides research training, capacity building, public policy research and Advocacy.

MESSAGE FROM THE EXECUTIVE DIRECTOR



Dr. Samuel Adjorlolo

Many students and researchers are always found wanting when they are called upon to communicate their findings in a simple, non-technical language appropriate to non-academic audiences mainly due to the lack of formal training in research communication. Meanwhile, the inability to communicate research findings to policy makers and the business community implies that

research findings cannot be adequately utilized to address the pressing and lingering socioeconomic problems besetting the country.

To connect academia to industry in Ghana and beyond, it seems extremely important to equip higher education students (i.e., undergraduates, Masters, and PhDs) with the requisite skills and competencies to communicate their research endeavors effectively. These individuals are important in the research production and dissemination chain across several disciplines mainly because they are the most suitable and qualified replacement for the ageing researchers.

To this extent, the Research and Grant Institute of Ghana (REGIG) is dedicated to complementing the efforts of the universities and research institutions in preparing the next generation of research students to effectively communicate their research projects to non-academic audiences within the shortest possible time.

Consequently, REGIG, with official approval from University of Queensland, the copyright holders of the event, organized the maiden edition of 3-Minute Thesis/Research Competition in Ghana to provide the platform for students to communicate their research projects and findings in a simple, non-technical language appropriate to a non-scientific audiences in three minutes, or under.

The interest shown in the event and the feedback from the participants, faculty members and students, and invited guest and dignitaries suggests that the 3-MT program will positively impact the research landscape in Ghana. The competition would be extended to the universities and research institutions across the country as a national annual event.

I salute the participants of the maiden competition for their courage and desire to do things differently.

ORGANIZATION OF THE MAIDEN 3-MINUTE THESIS/RESEARCH COMPETITION

The maiden 3-MT was limited to undergraduates and postgraduate students in the University of Ghana.

The following activities were undertaken as part of the organization of the competition;

Calls for Abstract

Advertisement for calls for abstract for the competition was widely circulated across the various departments in the University, using posters and letters addressed to the various student's associations. Electronic versions of the advertisement were also circulated via the website of REGIG and social media platforms, namely Facebook and WhatsApp. The abstract submission spans February 01, 2018 to March 30, 2018.

RESEARCH AND GRANT INSTITUTE OF GHANA

Website: www.regig.org
Email: info@regig.org
Tel: 0204197158

THREE MINUTE THESIS COMPETITION

MAIDEN 3-MINUTE RESEARCH/THESIS COMPETITION
UNIVERSITY OF GHANA

Do you want to develop the skills of presenting and communicating research projects in a simple, non-technical language appropriate to a non-specialist audience in three minutes, or under? Then, you are invited to participate in the Maiden 3-Minutes Research/Thesis Competition organized by the Research and Grant Institute of Ghana.

Open To:
Undergraduate, Masters, and Doctoral Students.

Application Procedure:
Submit an abstract of your research project containing the following to info@regig.org

- (1) Background
- (2) Methodology
- (3) (Expected) Findings/Results
- (4) Conclusion/Recommendation

Deadline for Abstract Submission:
30th March, 2018.

Prize (Research-Support Grant):
Up to One Thousand Ghana Cedis (GH¢ 1,000).

Note: Only shortlisted students will be contacted for the competition.
For further details, call: Dr. Samuel Adjetso (0204197158)
Mr. Obed Asamoah (0943427870)

Receipt of Abstract

By the close of the submission deadline, 12 abstracts were received by the REGIG secretariat from four (4) and eight (8) undergraduate and postgraduate students, respectively, across the various Departments in the University of Ghana, as shown in Table 1. Students from other universities, namely Valley View University and University of Professional Studies who expressed interest in submitting their abstracts were discouraged from doing same since the event was limited to University of Ghana students.

NAME	DEPARTMENT	TOPIC
UNDERGRADUATE STUDENTS		
Dodoo Naa Otobea	Psychology	Birth Order and Locus of Control.
Mighty Yaw	Social Work	Cyberbullying in Ghana.
Elizabeth Mbirbah	Biochemistry	Genetics of Cytoprotection in Sickle Cell Disease.
Deladem Akos Awum	Psychology	Students' Experience and Satisfaction with the Academic Environment of the University of Ghana.
POSTGRADUATE STUDENTS		
Paul Kwame Adjorlolo	Computer & Actuarial Science	Trend and Distributional Analysis of Rainfall Data.
Belinda Larteley Quaye	Accounting	SMEs Bookkeeping: Skills and Expectation.
John Atugiba Aloba	Geography	Customary Practices and Wetland Management in Ghana.
Raymond Adjei	Biochemistry	Detection and Molecular Characterization of Group A Rotaviruses in a Sanitary Environment in the Greater Accra Region of Ghana.
Pascal K. Mwin	Public Health	Malaria Surveillance System Evaluation, Jirapa, Upper West Region, Ghana- 2018.
Yakubu Nabila Hamid	Nursing	Birth Companionship: Perceptions of Postnatal Mothers in Tamale Teaching Hospital.
Irene Botchway	Psychology	Police Officers and the Decision to Divert Offenders with Mental Illness
Bernard Nai Pobee	Psychology	I have Applied a Thousand times. Applicants' Reaction towards the Selection Tools used by Human Resource officers.

Preparing the Participants for the Competition

REGIG Secretariat rendered the necessary support to the participants in their preparations for the competition. All the participants were provided with copies of the rules of the competition, the criteria for assessing the presentations. The participants were also referred to videos of 3-MT competitions organized by similar institutions. Lastly, the Secretariat was in frequent contact with the participants to address any issues they might have concerning the competition.

Dignitaries of the Competition

The Director of UNESCO, Mr. Tirso Dos Santos, and the Director of United Nations University, Dr. Elias Ayuk were invited as Special Guest of Honor and chairperson of the competition, respectively. Both accepted and honored the invitation. The Director of UNESCO also accepted to deliver a speech titled “Research Communication: A Tool to Promote Research Uptake”

Constituting the Panel of Judges

A total of seven (7) astute researchers recruited from different academic disciplines in the University of Ghana were invited to constitute a panel of judges for the competition. Only five accepted the invitation.

Audience of the Competition

Due to the limited sitting capacity of the venue, only a few students, faculty members, and industry players (N= 110) were invited as audience for the competition.

Media Coverage of the Event

Five (5) media houses (GBC TV, TV3, Joy News, GHOne TV, Campus TV, and Universe TV) were invited to provide media coverage of the event. Campus TV, Universe TV and GBC TV (represented by GBC radio) honored the invitation.

Date and Venue of the Competition

The competition was scheduled for April 25, 2018 at Francis Kof Drah Conference room, Department of Political Science, University of Ghana.

THE DAY OF THE COMPETITION

The competition started at 3:00 PM, with Mrs. Josephine Kyei, an Assistant Lecturer at the University of Ghana, as the Master of Ceremony (MC). The competition commenced with an opening prayer, after which the MC called on the Executive Director of REGIG to give his remark. This was followed by the introduction and remark of the chairperson of the competition, the panel of judges, introduction and speech by the special guest of honor. The next activities were the presentation by the participants, determination and declaration of the winners, and presentation of the awards to the winners.

Introducing the Competition by the Executive Director of REGIG, Dr. Samuel Adjorlolo

Dr. Samuel Adjorlolo highlighted the fact that the 3-MT competition was pioneered by University of Queensland in 2008 and has since been subscribed to by over 200 universities and institutions, globally. He noted that the Board of Directors and Management team of REGIG deemed it relevant and timely to introduce the competition to Ghanaian students as an annual nation-wide event.



Dr. Samuel Adjorlolo

This he indicated would be progressive, with the second edition limited to both private and public universities in the Greater Accra region. The third and subsequent editions will be extended to the universities and research institutions across the country. Speaking on why the competition is important and timely in Ghana, Dr. Samuel Adjorlolo emphasized why research findings must get to those who need them to make

well-informed choices and decision, including those pertaining to lifestyle and socioeconomic growth. He added that students should be provided with the platform to develop the skills of presenting and communicating their research projects in a way that non-academic audiences can truly understand and appreciate.

In his concluding remark, Dr. Samuel Adjorlolo indicated that the development of Ghana, particularly in the arena of the sustainable development goals, cannot be accomplished without effective communication of the salient researches conducted in Ghana.

Remark by the Chair Person, Dr. Elias Ayuk, the Director of United Nations University

In his opening remark, Dr. Elias Ayuk was emphatic on the view that the period where academicians sit in their offices and write complex equations and formulae that do not translate into meaningful and implementable policy directives are gradually becoming a thing of the past.

According to Dr. Ayuk, the recent emphasis on development indicators such as the SDGs at the global and national levels calls for a shift in academia-industry-public relation. Dr. Ayuk noted that unfortunately, many “bright” scholars and professors tend to have profound challenges producing policy briefs from their research projects. Meanwhile, contemporary policy makers are interested in “and so what” aspect of the research.

He believed that going forward, there is the need for a change in behavior and attitude, including developing the skills of presenting research projects in the simplest language devoid of scientific jargons and terminologies that a large proportion of the public and industry players can understand and utilize.

Dr. Ayuk congratulated the participants of the maiden 3-MT competition for mastering coverage to test their abilities of communicating research projects effectively to non-scientific audiences in three minutes, or under. He wished the participants well in their presentations, adding that for their bold and giant step, everyone is a winner.



Dr. Elias Ayuk

**Speech Delivered by the Special Guest of Honor,
Mr. Tirso Dos Santos, Director of UNESCO-Ghana**

Speaking on the topic *Research Communication: A Tool to Promote Research Uptake*, Mr Tirso Dos Santos stated that the world has achieved a lot through research, such as advancement in medicine, information communication technology, and transportation. Yet, it is extremely important that research findings are disseminated to the intended users, both in and outside academia.

According to Mr. Tirso Dos Santos, the major challenge confronting researchers is researcher-to-“layperson” communication, where researchers are expected to communicate their research findings in a simple, plain, non-technical language devoid of scientific jargons to non-scientific audiences, specifically the public. He noted that, through this, the public will be able to understand and use science to make informed decisions that are pertinent to improvement in livelihood and sustainable development.

Mr. Tirso Dos Santos further added that, there are several interesting research conducted by Ghanaian researchers that could, for instance, help traders at Makola, Okinshie, and Kasoa to improve their businesses, dissuade rural dwellers from engaging in activities (e.g., deforestation) that contribute to climate change, and help farmers in the timely management and maximize the benefits of their farming activities. However, these findings do not get to the public because of the overt gap between researchers and the public; a gap that can be bridge via effective communication of research.

According to Mr. Tirso Dos Santos, developing the skills to communicate science at a level that a general audience can understand requires deliberate practice and careful attention to language. The provision of formal training is certainly necessary but the research community also need the opportunity to deliberately practice the skills to ensure mastery. The platforms to achieving this, he stated, include research competition and research outreach programs. These activities require substantial preparations and rehearsals which ultimately would make communication of research of any kind to non-scientific audiences relatively easier.

In his concluding remark, Mr. Tirso Dos Santos stated that there is no doubt that scientific and research community has significant roles to play in the attainment of the United Nations Agenda 2030: The Sustainable Development Goals (SDGs). However, this is only possible if the research community can effectively communicate their



research findings on the SDGs to the public, including policy makers, politicians, industry players, and civil society organizations who are the main implementers of strategies of the SDGs priorities. He therefore urged the universities and research institutions to devise innovative and contemporary strategies to produce the next generation of researchers who can communicate research to the understanding of the public.

Presentation by the Participants

Prior to the presentation, the MC read the rules of competition to both the participants and audience. These include the “presentations are limited to 3 minutes maximum and participants exceeding 3 minutes are disqualified” and “Presentations are considered to have commenced when a presenter starts their presentation through either movement or speech”.



The presentation commenced with the undergraduate students, followed by the postgraduate students. The various presentations are summarized below.

Undergraduate Category

Ms. Dodoo Naa Otohea

Studies have established that birth order (i.e., first born, only child, second born, last born) has significant influences on personality configuration. On this basis, Ms. Dodoo Naa Otohea's investigated whether birth order influences the attribution of circumstances to oneself, others, or to faith (i.e., locus of control). Her research revealed that first born and only born children are more likely to attribute responsibility of their life circumstances to themselves whereas second



and third born children are likely to attribute responsibility of their life circumstances to others. Based on this preliminary findings, Ms. Dodoo Naa Otohea recommended that parents in particular take appropriate steps to ensure that each child has equal access to parental care and family responsibilities in order to ensure a well-adjusted personality.

Mr. Mighty Yaw

Across the globe, bullying is a ubiquitous practice in the various educational systems. With the advent of information communication and technology, the traditional face-to-face bullying has given way to technology-mediated bullying, called cyberbullying.

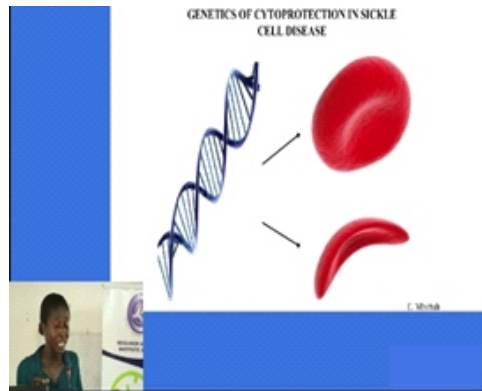
According to Mr. Mighty Yaw, the unprecedented rate of internet penetration in Ghana, with over 10 million people having access to internet, suggests that the country should take cyberbullying very serious. In this regard, his research aims to provide data on cyberbullying and its effect in three regions in Ghana: Greater Accra, Western, and Upper West Regions. The findings of this research will go a long way to



Ms. Elizabeth Mbirbah

Sickle cell patients are at heightened risk of experiencing sickle cell crisis, characterized by pain in the abdomen, chest or bones, anemia, and sometimes complications in certain organs. Although different levels of proteins are involved when sickle patients experience crisis, relatively little is known about their mechanisms of operations. Ms. Elizabeth Mbirbah's research focuses on the red blood cells of sickle cell patients with the aim of understanding the mechanisms of the proteins that are produced when there is crisis and how the sickle disease progresses. In

addition to helping to fully understand the disease, insight into the pathways or mechanisms will be helpful in developing treatment that would help to make the lives of sickle patients better, she noted.



Ms. Deladem Akos Awuma

The services provided by tertiary institutions can be grouped into infrastructure and amenities, resources and the admission process, staff and faculty members, and safety and security. Because students are not necessarily homogenous, it is important to determine factors that can significantly impact their satisfaction, with the aim of providing tailored services. Ms. Deladem Awuma's study focuses on whether gender, level of

study, type of study and college of students have significant impact on their satisfactions with the services rendered in the University of Ghana. She believed that the outcome of this study will help University of Ghana to adopt measures to increase the satisfaction of students in a bid to increase its competitiveness and to improve students' experiences.



Postgraduate Category

Mr. Paul Kwame Adjorlolo

Rainfall probability distribution and trend analysis is useful to communities, countries and the world at large in making decisions relating to the preparedness and measures to put in place to avert rainfall consequences such as floods, hunger, draught and changes in water levels in dams that affects hydroelectricity. According to Mr. Paul Adjorlolo, there is inconsistency between the predictions by Ghana meteorological service regarding rainfall and report from farmers about the realities on the ground with respect to rainfall and agricultural produce. He argued that the inconsistency results predominantly from inaccurate determination of the trend and distributional pattern of rainfall. His research therefore is aimed at developing trend and probability distribution models for rainfall, and importantly to use the models to make forecast of rainfall pattern and distribution. He is optimistic that his research can help farmers engage in timely farming practices and also contribute to reducing the losses associated with flooding, thereby helping to improve economic growth.



Ms. Berlinda Quaye

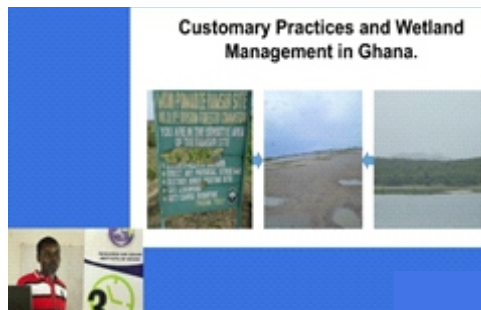
Small and Medium Enterprises (SMEs) are crucial to Ghana's socioeconomic development, as they contribute to 71% of the workforce in the country. According to Ms. Berlinda Quaye, since the contribution of SMEs to socioeconomic growth depend heavily on their finances, understanding the caliber of persons they employ to manage their finances would be useful for economic decision making. Her research revealed that individuals managing the accounts of SMEs do not have the requisite and contemporary accounting skills since majority are senior high graduates. These individuals do not understand the whole concept of book keeping and are also not abreast with



contemporary book keeping skills, she added. Since this may contribute to improper filing of tax returns with the Ghana Revenue Authority (GRA), Ms. Quaye recommended that the GRA should take appropriate steps such as sensitizing and training SMEs on the need for better and proper accounting practices as part of the agenda of expanding the tax bracket. She also advised SMEs to recruit qualified and competent accountants to manage their finances.

Mr. John Atubigah

Wetlands are valuable and important to the survival of mankind in areas such as food production, recreation and scientific research. There is therefore the need to adequately and appropriately manage wetlands. According to Mr. Atubigah, although formal and traditional approaches are used for wetland management, globally, much attention has rather been directed towards the formal management approach with apparent neglect of traditional approach. Meanwhile, research has shown that customary practices embedded in the tradition of communities tend to have significant impact on wetland status relative to formal approaches. In view of this, Mr. Atubigah's research seeks to elucidate the customary practices used in the management of wetland in the Ghana and to develop an integrated conceptual or theoretical model comprising both formal and traditional approaches to ensure maximum and better management strategies for coastal and environmental resources.



Mr. Raymond Adjei

Diarrhea is one of the major health issues confronting the country. Rotavirus is a known cause of diarrhea, accounting for 90% of diarrhea-related deaths in children below five years in low and middle income countries (LMIC). Importantly, although dangerous and uncommon forms of rotavirus occur in LMIC, including Ghana, the healthcare system in Ghana tend to focus on bacteria and other parasitic causes of diarrhea, with virtually no attention to rotavirus. Consequently, Mr. Raymond Adjei examined whether the poor sanitary conditions in the country could be serving as fertile grounds for group A rotavirus to flourish which could be accounting for the diarrhea infections in the country, particularly in children under five years. Stool samples of children below 5 years diagnosed with diarrhea were taken from hospitals located in Ashiaman and Tema,



representing poor and good sanitary environments, respectively. Mr. Adjei found that five forms of dangerous rotaviruses were circulating in Ashiaman, compared with only 3 forms of the normal rotavirus in Tema. Additionally, children diagnosed with diarrhea in Ashiaman reported two or more forms of the dangerous rotavirus. The findings reiterate the need to improve sanitation in our environment, ensure proper personal hygiene on the part of parents

and caregivers. The findings also provide a foundation to equip the hospitals to be able to detect rotaviruses and also to create a better place for children to leave in.

Mr. Pascal K. Mwin

In 2016, the WHO reported 216 million cases of malaria, 90% of which came from sub-Saharan Africa (SSA). More specifically, Ghana contributed over 10 million cases. Since surveillance of malaria is key to solving or reducing the incidence of malaria, particularly in malaria endemic countries, Mr. Pascal Mwin evaluated the malaria surveillance system instituted in Jirapa in the Upper West Region for the period 2012 to 2017. He found that the surveillance system recorded 193,785 suspected new cases of malaria over the six year period of which 13,078 cases were confirmed, resulting in a positive predictive value of 6.75%. Data quality was 70.8% good while report submission was 90.01% timely. The system was rated to be good, flexible, acceptable, representative, and useful because it was detecting cases all-year round. However, the system fell short of achieving its intended objective because there were no calculated and set ratio to help the district monitor and detect epidemic for subsequent action.



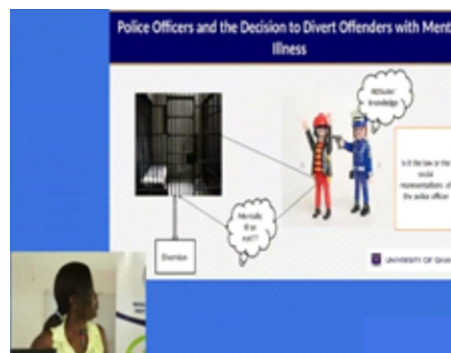
Mr. Nabila Hamid

Studies suggest that birth companionship provided by family members reduces fear and anxiety surrounding the delivery process, reduces labor pain, and contributes to facilitating the progress of labor, leading to satisfactory birth outcomes. Mr. Nabila Hamid's research therefore focuses on exploring the perception of postnatal women about participation of a relative as a birth companion during hospital delivery. The result shows that women are desirous of having support such as physical, emotional support, and spiritual supports, particularly from their spouses, mothers and other close relatives during the delivery process. The study further revealed that unfriendly hospital rules and regulations and the lack of physical space and structure were barriers to providing birth companionship. Mr. Nabila recommended the inclusion of significant other in the delivering process. This he believe will contribute significantly to good birth outcomes, thereby reducing child and maternal mortality as envisioned by the sustainable development goals 3.



Ms. Irene Botchway

Empirical evidence from across the globe suggests an overwhelming representation of offenders with mental illness in the criminal justice system. The newly promulgated mental health Act (Act 846) in Ghana made provisions for police officers to divert individuals embroiled in the criminal justice system with suspicion of suffering from mental disorders. However, factors that are likely to influence police officers decision to divert these individuals have been not explored. Addressing this topical issue, Ms. Irene Botchway found that attitudes of police officers towards mental illness significantly influence the decision to divert, suggesting that individuals with negative attitudes toward mental illness are less likely to divert. Relatedly, officers' knowledge on the existence of the legislation on diversion significantly influenced the decision to divert. According to Ms. Botchway, the results calls for efforts to promote positive attitudes toward mental illness among police officers and also increase their knowledge regarding the law on diversion.



WINNERS OF THE COMPETITION

The various presentations were assessed by the five-member panel of judges, who took consideration the levels of the participants; undergraduate and postgraduate levels. The presentations were ranked using a 3-point Likert format (0 to 2) based on some predefined such as whether the presentation clearly describe the scholarly and scientific contribution of the research and whether the presenter capture and maintain their audience's attention criteria. All disagreements were resolved by consensus.



After about 15 minutes of tabulations and deliberations by the panel of judges, two individuals were announced as winners of the competition: Ms. Elizabeth Mbirbah (topic: Genetics of Cytoprotection in Sickle Cell Disease) for the undergraduate category, and Mr. Raymond Adjei (topic: Detection and Molecular Characterization of Group A Rotaviruses in a Sanitary Environment in the Greater Accra Region of Ghana) for postgraduate category.



Professor Charles. C. Mate-Kole
announcing the winners of the competition

Presentation of Awards to the Winner

Each winner received a research-support grant of GH¢ 500, presented on behalf of REGIG by Dr. Gideon Puplampu.



Mr. Raymond Adjei (left) receiving award from Dr. Gideon Puplampu on behalf of REGIG



Ms. Elizabeth Mbirbah (left) receiving award from Dr. Gideon Puplampu on behalf of REGIG

Online Access to the Competition

To access the competition online, kindly visit the YouTube page of the Research and Grant Institute of Ghana at www.youtube.com/watch?v=118Hn67WT0M

PHOTO PAGE



A section of postgraduate students at the event



A section of participants, judges and audiences at the event



Professor Charity Akotia (right), a member of Board of Directors of REGIG, and Dr (Mrs.) Margaret Amankwah Poku, a member of panel of judges



A section of dignitaries, participants, judges and audiences at the event.



A section of undergraduate students at the event

PHOTO PAGE



Executive Secretary of REGIG, Ms. Adutwumah Adu-Poku at the event



A section of faculty members at the event



Section of undergraduate students at the event



Award winners and a section of REGIG team



Director of UNESCO, Mr. Tirso Dos Santos, at the event as a special guest of honor



Ms. Sheila Birikorang giving vote of thanks

Contact Us

Postal Address: P. O. Box GP 4325, Accra, Ghana, West Africa

Physical Location: No 141, Rodjoe Commey Street, Adentan-Frafraha, Greater Accra.

Website: www.regig.org

Email: info@regig.org

Telephone: (+233)-0204197158 / 0204856244

Social Media Platform

You can follow, like or subscribe to REGIG's via the following social media platforms:

Facebook: [reseachgrant.Gh](#)

Twitter: [reseachgrant_Gh](#)

Instagram: [reseachgrant_gh](#)



RESEARCH AND GRANT INSTITUTE OF GHANA

Copyright © 2018