



ED34B-1706 An oceanography summer school in Ghana, West Africa

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BACKGROUND

- Oceanography is a global enterprise, requiring global measurements, and a global workforce.
- As in other STEM disciplines, Africa is not well represented in the global community of oceanographers.
- Marine issues important to Ghana include:
 - environmental impacts of offshore oil drilling
 - navigation and port management
 - fisheries
 - piracy
 - pollution

- In a 2014 "scouting trip" by Arbic and Ansong, we uncovered interest in an oceanography summer school amongst four Ghanaian universities:
 - University of Ghana, Accra

A comprehensive research university with a Department of Marine and Fisheries Sciences

--Regional Maritime University (RMU), Accra

A university managed by the governments of several African countries with marine interests

--Kwame Nkrumah University of Science and Technology (KNUST), Kumasi

A university focused on STEM disciplines, with parties in several departments interested in marine issues

--University of Cape Coast (UCC), Cape Coast

A comprehensive research university with a Department of Fisheries and Aquatic Sciences

THE 2015 SUMMER SCHOOL

- Hosted by RMU from August 24-27, 2015
- About 55 participants, some of whom came in and out of the lectures, and about 35 of whom came to all of the lectures
- Participants included

- Many RMU faculty and staff
- 11 KNUST students
- 1 KNUST faculty member
- 1 Associate Oceanographer from the EU-MESA project (University of Ghana)
- Various individuals from governmental agencies and the private sector

•Material covered:

- Physical Oceanography (Arbic)
- Chemical Oceanography (Johnson)
- Satellite Oceanography (Nyadjro)
- Ocean Modelling (Ansong)

•Working with models and downloaded satellite data is appealing to Ghanaian scientists because of their relatively low cost.

SOME HIGHLIGHTS

- Discussions after lectures were extremely lively.
- One RMU faculty member, J.K. Adjetej, a former ship captain, provided a unique and practical perspective to the lecture materials
- The closing ceremony, in which attendees received certificates of participation, was preceded by a very useful discussion on ways to improve future renditions of the summer school.



Group photos
Wed
Aug 26
(left)
and Th
Aug 27
(right)



RMU Vice
Chancellor
Elvis
Nyarko (left)
and
faculty
member
J.K. Adjetej
(right)
speaking at
closing
ceremony



Tour of RMU engine room simulator facilities given by RMU staff



Snack break provided by Goodrao Catering Services

RECEIPT OF CERTIFICATES OF PARTICIPATION AT CLOSING CEREMONY



RMU student Ama Amuah Sam (left) receives certificate of participation from Joseph Ansong (right)



RMU lecturer Rebecca Kyeremwa Esumuah (left) receives certificate of participation from Brian Arbic (right)



RMU lecturer Anthony Badu-Peprah (left) receives certificate of participation from Winnifred Johnson (right)



KNUST Geomatic Engineering student Lily Lisa Yevugah (left) receives certificate of participation from Vice Chancellor Elvis Nyarko (right)



RMU lecturer and Women in Engineering Coordinator for the Ghana Chapter of the IEEE Catherine Asiriri (left) receives certificate of participation from Vice Chancellor Elvis Nyarko (right)



RMU lecturer and former container ship captain J.K. Adjetej (left) receives certificate of participation from Ebenezer Nyadjro (right)

THE FUTURE OF THE GHANA SUMMER SCHOOL

Funding is in place to hold the summer school at the University of Ghana in 2016 and at RMU in 2017

A larger number of US scientists will participate in the 2016 and 2017 summer schools

Feedback from participants led to the following suggestions for future summer schools:

- Hold school earlier in August, before universities open, to maximize participation
- Provide accommodation and food to increase viability of attendance for students
- Consider splitting participants into interest groups (chemistry, modeling, etc.) to cover material in greater depth
- Consider allotting time for student presentations
- Make time for contact with attendees in between summer schools
- Utilize distance learning to increase participation

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