



Kwame Nkrumah University of
Science & Technology, Kumasi, Ghana



Regional Water & Environmental Sanitation Centre, Kumasi

Africa-India Science and Technology Initiative with ACEs

March 12, 2019. IIT-Roorkee, India

Presented by: Prof. S. N. Odai, Centre Director



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Vision & Strategies

VISION

To be the recognised hub for advancing research knowledge, developing innovative technologies, providing high quality training and outreach in water, sanitation and hygiene (WASH) for sustainable development of West Africa



Education and Training

MSc/MPhil

- Water Resources Engineering and Management
- Water Supply and Environmental Sanitation

PhD

- Water Resources Management
- Environmental Sanitation and Waste Management
- Water Supply and Treatment Technologies

New Programmes

- MSc and PhD programmes in Water, Sanitation and Hygiene (WASH) Governance
- MSc Disaster Prevention and Management



international Accreditation





Enrollment

Programme Level		Total
PhD		53
Water Resources Management		27
Environmental Sanitation and Waste Management		23
Water Supply and Treatment Technologies		3
MSc/MPhil		86
Water Resources Engineering and Management		37
Water Supply and Environmental Sanitation		49
Total		139



Applied Research



RESEARCH THEMES

- Resilient and innovative Low-Cost Water Supply and Treatment Technologies
- Resilient and innovative Low-Cost Environmental Sanitation Technologies and Systems
- Resilient and innovative Water resources management and Climate Change
- Water resources, sanitation and hygiene (WASH) Governance

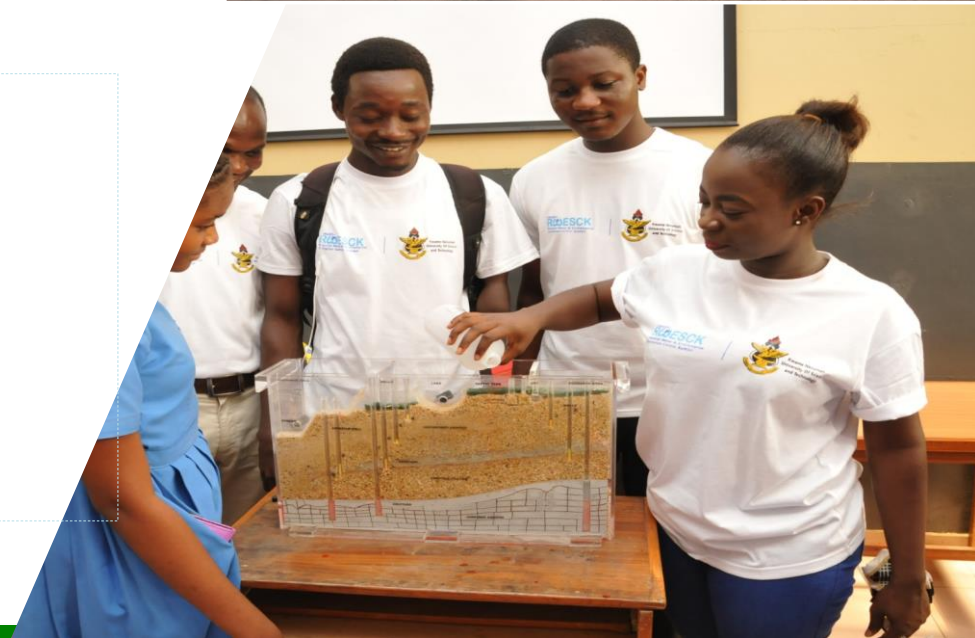




Outreach



- World Water Day
- World Menstrual Day
- World Hand Washing Day
- World Toilet Day





Internships

- CWSA
- Hydrological Services Department
- SAFISANA
- Ghana Water Company
- GIDA
- Water Resources Commission

Intensify Regional Internships





Resources - Human

Name of Department	No. of Academic staff	Faculty Qualifications	
		PhD (%)	Master (%)
Civil Engineering	27	96	4
Geological Engineering	11	64	36
Geomatic Engineering	14	79	21
Agricultural Engineering	15	80	20
Mathematics	28	68	32
Planning	24	92	8

- In addition to our **National, Regional and International** partners

RWESCK Centre Building





Facilities

- Three Thematic laboratories
- Modern Lecture rooms
- Graduate research hub
- An auditorium
- Offices for staff
- Computer laboratory
- Library
- Cafeteria
- 2 Buses
- Several SUVs (incl. 2 LC)

- Gas Chromatograph-Mass Spectrometer
- Atomic Absorption Spectrophotometer
- Autoclave
- All-In-One Multinode Resistivity and Induce Polarization Sounding and Profiling System
- Echosounder
- Water Level instrument little dipper Water level
- Water Flow Meter
- Universal Current Meter with counter, sinker and support for Cable Suspension
- Eddy covariance System
- Hand Auger
- Soil Moisture (Sensor) Kit
- Handheld-ADV Flow tracker
- Chest waders
- Demonstration Lysimeter
- Pump Vacuum hand held Nalgene
- Bench top Centrifuge Sieve Shaker

WASCAL Centre Building





Partners - Industrial / Sectoral Partners

- Ministry of Sanitation and Water Resources
- UNICEF Ghana Office
- World Vision International
- Ghana Water Company Limited (GWCL)
- Community Water and Sanitation Agency (CWSA)
- Water Resources Commission
- Zoomlion Ghana Limited
- Coalition of NGOs in Water and Sanitation (CONIWAS)



Areas of Collaboration

- Contract Research
- Consultancy
- Tailor-made short courses
- Staff / student internships



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Partners - Academic

- IHE Delft Institute for Water Education
- University of Exeter
- Tshwane University of Technology
- University of Abomey-Calavi
- National Water Research Institute, Nigeria
- University of Sierra Leone
- University of Benin
- University of Cheik Anta Dioup
- University of Cape Coast
- University of Education Winneba



Areas of Collaboration

- Add value to RWESCK
- Adjunct staff to RWESCK
- Joint Research
- Joint short courses
- Build capacity of regional institutions





Our Expectation

1. Staff Exchange (3 – 6 months):
 - Waiting to send first cohort of staff in June – August
 - **Receive IIT Experts** in our Laboratories
 - Scale up Relevant Applied Research
 - Some Hands-on experience and Technologies Development
 - Intensify publications
1. Students Exchange – Need to work out details
1. Other Areas of **NEED** in the College of Engineering:
 - i. *ICT, AI, IoT*
 - ii. *Materials Science and Engineering*
 - iii. *Energy*
 - iv. *Transportation – Road, Rail*
 - v. *Structural Engineering and Geotechnical Engineering*



THANK YOU!

FOR YOUR ATTENTION



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