



Multi-skilling: Intellectual Synergy or Death Knell for Professional Growth?

By: Dr. Patrick Ajwang'



From Fifth Right: Eng. Prof. Lawrence Gumbe, Eng. Shiribwa Mwamzali, Eng. Kennedy Makudih, Ezekiel Oranga, Yvonne Madahana, Josephat Omari and Thirty-One (31) Clerks of Works During the Opening Day of the Training of Clerks of Works on Contract Management and Registration as Professional Engineers; on 8 May 2023 at Burch's Resort.

Recently, I had an intriguing and exciting dialogue with a fresh graduate from one of our well-known universities who claimed that he had always wanted to be a mechanical engineer and was not happy that he had graduated from an agricultural engineering programme. After several online exchanges I convinced him that agricultural engineering could even be more attractive and exciting career than mechanical engineering, given that our country is still predominantly an agricultural economy. I also convinced him that agricultural engineering has a lot of mechanical engineering content in addition to other branches of engineering and physical sciences.

DEAR READER

Welcome to KeSEBAE Newsletter.

A fortnightly Newsletter touching on topical issues affecting our environment.

KeSEBAE NEWS is a Newsletter of the Kenya Society of Environmental, Biological and Agricultural Engineers (KeSEBAE)

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Call for Membership

At the end of the conversation, he was convinced that he had taken the right academic programme at the university.

During my undergraduate studies, I had a friend who came to pursue a mechanical engineering degree, having completed an agricultural engineering diploma programme earlier. He graduated with a good mechanical engineering degree and reported back to his place of work in the government of Kenya. When he presented his papers for promotion, he was denied the progression as the bosses claimed that he had changed his career line. He felt frustrated for several years earning only the salary of a diploma holder despite having attained a degree. He eventually left government employment, going into the private sector.

The above two examples illustrate some typical challenges that we encounter in some career paths. I have deliberately used the example of agricultural engineering because that is also my background. It is an academic discipline that has attracted a lot of flak over the years. As an academic discipline, agricultural engineering is quite broad. It entails the application of all relevant science and engineering concepts in agriculture, horticulture and livestock production, processing and management. Additionally, agricultural engineers are expected to have a sound understanding of crops, animals, soils, climate, economics and elements of rural sociology to enable them work effectively with farmers.

This relatively broad academic background answers to the diversity of problems that you can find in the realm of agricultural production, processing and distribution. Whereas some agricultural engineers have worked with large engineering consulting firms

in the design of dams and related infrastructure for the purposes of irrigation, others find themselves working with rural farmers in soil and water conservation services. Still, others work as managers of large agricultural processing factories while others oversee the land preparation, planting, crop protection and transport activities in large agricultural plantations. Today, the county governments in Kenya are increasingly hiring agricultural engineers.

A few works in design roles where they produce components for the construction of agricultural machinery while some also work as building contractors. Some well-established agricultural companies that adopt a farm-fork perspective in their operations prefer to have agricultural engineers as the overall bosses. And it is worth mentioning that many international development institutions such as the World Bank or African Development Bank have agricultural engineers in the senior ranks. Indeed, agricultural engineering is the vanguard of rural development.

From its origins as a degree programme around year 1905 AD, agricultural engineering was fashioned as a farm-fork academic discipline that addresses all the engineering challenges in the agricultural and livestock value chains. This made it so broad thereby attracting accusations that agricultural engineering is not detailed or specialized enough. Yet looking at what the International Commission on Agricultural Engineering (CIGR) recognizes as relevant agricultural engineering content, one would realize that depth, breadth and relevance are served in sufficient measure in the agricultural engineering degree curriculum that has been offered in Kenya since around 1978.

Consequently, I can say that agricultural engineers are multi-skilled professionals who are in good stead to handle the diverse engineering problems in the vast array of value chains that support our local food and nutrition needs as well as the export base for foreign exchange earnings. The broadness of the knowledge areas covered in the agricultural engineering curriculum in Kenya is a good foundation for professional development in a wide array of career paths. Multi-skilling at an early stage can provide professional synergy in the workplace and is a basis of job enrichment. However, it can also turn out to be the death knell for individuals who fail to imbibe the fact that agricultural engineering roles are not always about multi-billion mega-projects, which indeed are the pre-occupation of some engineers.

But there are many agricultural engineers who have taken courses in other professional disciplines especially management sciences. Whether the

objective for such endeavors was to change the career path or broaden their knowledge base to enhance their competitiveness in the job market or not, it would be good to try to understand why one might try to change. However, in this process of 'career wandering' it has emerged that agricultural engineers are amongst the top brains in the country who can juggle disparate career lines.

Perhaps it was the failure of our seniors in the profession to pitch and sell agricultural engineering as the career for true economic transformation that has contributed to such deviations or diversions. Today, even major commercial banks employ agricultural engineers to run their agribusiness lending portfolios – this was unimaginable a few years ago. Let us celebrate our multi-skilled academic backgrounds as a source of professional comparative advantage in the competitive labour market.

Training of Clerks of Works on Contract Management and Registration as professional Engineers

The Ministry of Agriculture and Livestock Development together with KeSEBAE, organized a training on contract management and registration of professional engineers for the clerks of works under Small Scale Irrigation and Value Addition Project (SIVAP) and the Multinational Drought Resilience and Sustainable Livelihoods Programme (DRSLP).

The training was held in Burch's Resort Naivasha from 8 to 12 May 2023. Thirty one (31) clerks of works attended the training along with nine (9) trainers and a few of stakeholders from both KeSEBAE and the ministry. The trainees learnt a lot ranging from engineering profession, practice of engineering, project management, procurement of engineering, contract management for engineers,

contract management and administration, site organisation and management, economic and financial analysis of construction projects, experience of an agricultural engineer in the private service and civil service to environmental, health and safety considerations in engineering construction. They were also taught dining etiquette with Chief Lawrence of Burch's Resort.

The contract management training covered the knowledge gap that the clerks of work were experiencing at their allocated station, they gained more insight on the practice of engineering in accordance to law, their expectations in the engineering field both in private and civil service were well covered too.



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Eng. Shiribwa Mwamzali, Ezekiel Oranga, Josphat Omari Share a Photo with the Trainees on The Last Day of the Training of Clerks of Works On Contract Management And Registration As Professional Engineers.

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KEY DATES:

Abstract Submission: 11 Oct 2023
Paper Submission: 10 Nov 2023
Payment Deadline: 25 Oct 2023

CHARGES

Members: KES 15,000 (\$150)
Non Members: KES 20,000 (\$200)
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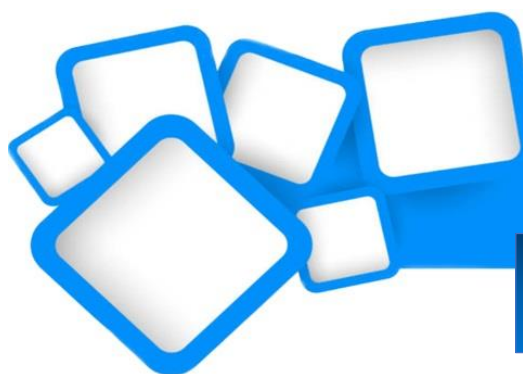
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Call for Papers

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JEAE

Journal of Engineering in Agriculture and the Environment

The Journal of Engineering in Agriculture and the Environment (JEAE) is a Publication of the Kenya Society of Environmental, Biological and Agricultural Engineers (KeSEBAE) through which researchers in the fields of Environment, Agriculture and related fields share research information and findings with their peers from around the globe.

The JEAE Editorial Board wishes to invite interested researchers with complete work in any relevant topic, to submit their papers for publication in the next editions of the Journal.

Manuscripts may be submitted online or via email to:

Prof. Lawrence Gumbe, Chairperson, JEAE Editorial Board

Via Email: info@kesebae.or.ke or online via: https://www.kesebae.or.ke/journal/manuscript_submit.php

Criteria for Article Selection

Priority in the selection of articles for publication is that the articles:

- a. Are written in the English language
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- c. Have not been previously published elsewhere, or, if previously published are supported by a copyright permission
- d. Deals with theoretical, practical and adoptable innovations applicable to engineering and technology in agriculture, the environment and biological systems
- e. Have a 150 to 250 words abstract, preceding the main body of the article
- f. The abstract should be followed by the list of 4 to 8 "Key Words"
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- h. Should be submitted in both MS word (2010 or later versions) and pdf formats (i.e., authors submit the abstract and key words in MS Word and pdf after which author uploads the entire manuscript in MS word and pdf)
- i. Are supported by authentic sources, references or bibliography

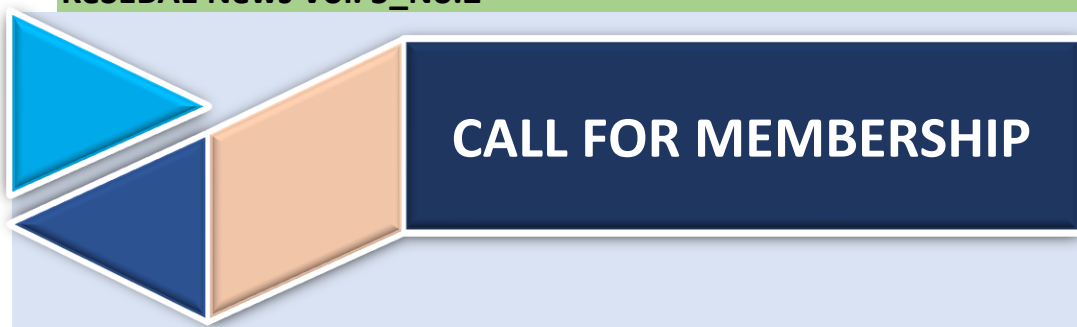
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CALL FOR ARTICLES TO KeSEBAE NEWS

KeSEBAE NEWS Editorial wishes to call for topical articles for publication in future editions of KeSEBAE NEWS.

Please transmit the same to the **Editor: Ezekiel Oranga** via Email: info@kesebae.or.ke

NOTE: A payment will be made to the author of each selected article



Be a KeSEBAE Member:

The annual subscription fees, admission fees and reinstatement fees for members of all grades (except Honorary and Life Members who shall pay no dues or fees) are indicated below: The annual dues are as follows:

Membership Category	Annual Subscription (KES)	Admission Fees (KES)	Reinstatement Fees (KES)
<i>Fellow</i>	5,000	1,000	2,000
<i>Member</i>	2,000	1,000	2,000
<i>Ass.Member</i>	1,000	1,000	2,000
<i>Aff.Member</i>	500	1,000	2,000
<i>Student</i>	300	100	-

Membership Renewal

Members of all grades are requested to renew their 2022 membership as follows.

Membership Category	Annual Subscription Fee (KES)
<i>Fellow</i>	5,000
<i>Member</i>	2,000
<i>Ass. Member</i>	1,000
<i>Aff. Member</i>	500
<i>Student Member</i>	300

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