



# KeSEBAE NEWS



Newsletter of the Kenya Society of Environmental, Biological and Agricultural Engineers

VOLUME 5. NO. 7

23 AUGUST 2023



Deborah Njeri Harvesting Lettuce in Kibbutz Farm in Israel

## 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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## **About the Conference**

The annual international conference for 2023, organized by the Kenya Society of Environmental, Biological and Agricultural Engineers (KeSEBAE) in collaboration with the Pan African Society for Agricultural Engineering (PASAE), is set to take place from Wednesday 6th to Friday 8th December 2023. The conference will revolve around the theme of "Engineering Agenda 2063: The Africa We Want."

## **Sub- Themes**

- i. Seamless Connections (Roads, Railways, Air Transport)
- ii. Energy for Africa
- iii. Industrialized Agriculture
- iv. Housing
- v. Free Trade in Services
- vi. Security
- vii. Sustainable Environment
- viii. Engineering Education and Practice



## **Paper Submission**

The conference avails an international platform for presentation of new advances and findings in diverse engineering fields. We therefore appeal to members to submit their papers. We encourage you to invite colleagues to participate in the conference and submit papers for the Conference Call for Papers.

Please submit your papers to [events@kesebae.or.ke](mailto:events@kesebae.or.ke).

## **Key Dates:**

Abstract Submission: 11 September 2023

Paper Submission: 10 October 2023

Payment Deadline: 25 October 2023



**Registration Details**

Members: KES 15,000(\$150)

Non-Members: KES 20,000(\$200)

Undergraduate Students: KES 2,000(\$20)

Field Visit: KES 5,000(\$50)

Virtual: KES 10,000(\$100)



**Registration Links**

KeSEBAE Website: [www.kesebae.or.ke](http://www.kesebae.or.ke)

Web Link: <https://kesebae.or.ke/about-us/events/conference-2023/>

PASAE: [www.pasae.org.za](http://www.pasae.org.za)

**Contact Details**

Call: 0788712156

Email: [info@kesebae.or.ke](mailto:info@kesebae.or.ke)

Web: [www.kesebae.or.ke](http://www.kesebae.or.ke)



As I reflect on my year as an Agricultural intern in Arava desert in Israel, I am overwhelmed by gratitude for the knowledge and expertise I attained. It was a journey that transcended my experience in agriculture. This unique journey was filled with appreciation, skills, friendships, and a shift that has reshaped my life.

Stepping into the realm of irrigation and agriculture experts after earning a BSc in Biosystems Engineering from the University of Nairobi was a golden opportunity. Landing at Ben Gurion International airport, the vibrant first-world atmosphere was a stark contrast to my home country, and my excitement for the journey ahead deepened.

Assigned to the Kibbutz in the southernmost town of Eilat, where the Red Sea meets the horizon, I embarked on a daily routine that began at dawn. Accompanied by fellow interns from across the globe from Asia and Africa, I soon realized that effective communication required Google Translate due to our diverse backgrounds. In the Arava, our days began with a tractor ride to the fields, where we laboured until the sun set. There were instances of working for extended periods - 10, 11 or even 12 hours. The kibbutz farm consisted of an orchard teeming with fruit trees, including dates, pomelos, grapes, grapefruits, lemons, and pomegranates. Through this experience, I absorbed the procedures of cultivating these fruits, including their irrigation system. Our farm also cultivated vegetables destined for local markets, encompassing onions, corn, kohlrabi, celery, parsley and many others.

Life on the Kibbutz was a captivating blend of culture and collaboration. Working side by side with Vietnamese, Thai, Sudanese, and Israeli workers, I not only learned about farming but also gained insights into their cultures and traditions. The first month was challenging, yet I embraced the rhythm and adapted to the tasks like a fish to water. The barren fields we worked on were a testament to the Israeli culture of diligence and determination.

Arava International Centre of Agricultural Studies became a beacon of knowledge. Weekly classes covering various topics such as pest management, viticulture, modern irrigation, mushroom cultivation, and business development among others expanded

our horizons. Armed with this wisdom, we returned to the fields, bridging theory with practical applications.

Comparing agricultural practices between Kenya and Israel unveiled differences influenced by climate, technology, culture, and economics. Kenya's tropical climate supports diverse crops, while Israel's arid landscape thrives through technology-driven water management. The embrace of precision agriculture and cutting-edge research sets Israel apart, while Kenya's journey towards modernization is still unfolding. Kenya stands to benefit from adopting advanced agricultural practices from Israel. While our climates may be distinct, there's potential to embrace their research-oriented culture and precision agriculture methods, particularly for enhancing export-oriented productivity.

Beyond agriculture, Israel's vibrant culture left a mark. Exploring bustling markets, encountering diverse languages and enjoying the local cuisines, I was immersed in an array of traditions. Observing Shabbat, walking in the same footsteps that Jesus did (supposedly) and engaging with the global tourist community enriched my experience.

Embracing the journey wholeheartedly, I even learned a little of Hebrew and indulged in Israeli dishes like falafel, hummus, and pita bread. This rich cultural exposure was more than a footnote; it was instrumental in shaping my personal and academic journey.

As the year ended, my experiences bore fruit in unexpected ways. After returning home, securing a scholarship for a Masters in Water Resources Engineering at KU Leuven in Belgium was a testament to the doors this journey opened. I returned home, forever transformed by the knowledge gained, friendships forged, and the unyielding spirit of the Arava desert.

In conclusion, my year in Israel was a chapter of growth, empowerment, and seizing opportunities. The arid desert not only nurtured crops but also nurtured my personal and professional evolution. The echoes of dawn in the orchards and the diverse cultures continue to resonate within me, a reminder that this journey was not just a year, but a lifetime of transformation.



*Working on Garlic Farm*



*Harvesting Grapefruits*



*Pruning of Pomelo Fruit Trees*



*Planting of Melons Grafted onto Pumpkin Seedlings*



*Planting of Parsley Seedlings*



*Taking Harvested Lemons to the Packing House*



*Stringing of Newly Sprouted Grape Stalks in Preparation for Budding*



*Cleaning of Drip Irrigation Filters*



*LunchBreak while Working on Crane in the Dates Field*



*Harvesting of Lettuce*



*Bagging of Date Fruits in Preparation for Harvesting*



*School Trip to the North of Israel*



The poster features a background image of a red tractor and an orange harrow in a field. At the top left is the ACEK logo, which consists of a map of Kenya with a globe inside and the letters 'a c e k' below it. To the right of the logo, the text reads 'Association of Consulting Engineers of Kenya' followed by 'ACEK 20 CONFERENCE 23' in large blue letters, and 'Engineering Food Security' below that. The location and dates are listed as 'Eldoret, Kenya' and '16<sup>th</sup> - 18<sup>th</sup> October 2023'. A red starburst graphic contains the text '20 PDUs'. A table of delegate fees is provided, along with payment instructions for bank and MPESA, a registration link, and contact information.

**Association of Consulting Engineers of Kenya**  
**ACEK 20**  
**CONFERENCE 23**  
 Engineering Food Security

**Eldoret, Kenya**  
**16<sup>th</sup> - 18<sup>th</sup> October 2023**

**20 PDUs**

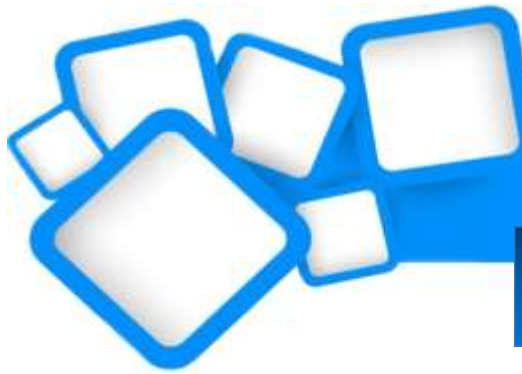
DELEGATES	Early Bird Tickets Up to 16 <sup>th</sup> Sep	Late Registration From 17 <sup>th</sup> Sep
ACEK Members	KES 20,000	KES 25,000
Kenya and EA Delegates	KES 25,000	KES 30,000
International Delegates	USD 300	USD 350
Future Leaders	KES 15,000	KES 15,000
Virtual Delegates	KES 10,000	KES 12,500

**BANK PAYMENT MODE**  
 Account Name: Association of Consulting Engineers of Kenya  
 Bank Name: Standard Chartered Bank, Kenyatta Avenue Branch  
 Account No.: 0122024040900  
 Swift Code: SCLBKENXX

**MPESA PAYMENT MODE**  
 Use na M-Pesa  
 Buy Goods And Services  
 Till Number:  
**5181749**

**BOOK YOUR SPACE** Visit this link to Register  
<https://bit.ly/3TL6hA4>

**CONTACT US FOR MORE INFO.** | Email: [acek@acek.co.ke](mailto:acek@acek.co.ke) or [aceksecretariat@gmail.com](mailto:aceksecretariat@gmail.com)  
 Mobile: +254 (0) 717 191593 | Telephone: +254 (0) 202 249085



# Call for Papers

## To the Next Editions of the JEAE

## 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](mailto:info@kesebae.or.ke) or online via: [https://www.kesebae.or.ke/journal/manuscript\\_submit.php](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
- b. Are relevant to the application of engineering and technology in agriculture, the environment and biological systems
- 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"
- g. Manuscript should be single-spaced, under 4,000 words (approximately equivalent to 5-6 pages of A4-size paper)
- 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

**Our Expert Reviewers are Highly Regarded Globally and Provide Fast and Rigorous Review Services** For additional details and online support visit: <https://www.kesebae.or.ke/journal/instructions.php> or visit our JEAE website at: <https://www.kesebae.or.ke/journal/>

### 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](mailto: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:

<i>Membership Category</i>	<i>Annual Subscription (KES)</i>	<i>Admission Fees (KES)</i>	<i>Reinstatement Fees (KES)</i>
<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.**

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

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<https://web.facebook.com/kesebae1/>

**PAYMENT DETAILS**

<b>Bank</b>	
<b>Bank</b>	<b>Absa Bank Kenya Plc</b>
<b>Branch</b>	<b>Nairobi University Express Branch</b>
<b>Account Name</b>	<b>Kenya Society of Env. Bio. &amp; Agric. Engineers</b>
<b>Account No.</b>	<b>2038150696</b>
<b>Swift Code</b>	<b>BARCKENX</b>
<b>Currency</b>	<b>Kenya Shillings</b>

**M-PESA DETAILS**

Pay Bill No.: **4002575**  
 Account No: **Your Full Name**



<b>Important Links</b>	
<b>KeSEBAE</b>	<a href="https://www.kesebae.or.ke/">https://www.kesebae.or.ke/</a>
<b>JEAE</b>	<a href="https://www.kesebae.or.ke/journal/">https://www.kesebae.or.ke/journal/</a>
<b>EBK</b>	<a href="https://ebk.or.ke/">https://ebk.or.ke/</a>
<b>IEK</b>	<a href="https://www.ikenya.org/">https://www.ikenya.org/</a>
<b>PASAE</b>	<a href="http://www.pasae.org.za/">http://www.pasae.org.za/</a>
<b>Email</b>	<a href="mailto:info@kesebae.or.ke">info@kesebae.or.ke</a>