



*Inspiring Innovation and Leadership*

## KARATINA UNIVERSITY

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### STAFF PROFILE TEMPLATE

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1. **Name:** DAVID SUJEE
2. **Designation:** Senior Lecturer
3. **Employment details**

School: Pure and Applied Sciences

Department: Biological and Physical Sciences

#### 4. Contact Information

**Email Address** (Corporate and Personal): [dsujee@karu.ac.ke](mailto:dsujee@karu.ac.ke)

**Research Links:** [including orcid number and google scholar links]

[https://scholar.google.com/citations?user=fWtVF\\_sAAAAJ&hl=en](https://scholar.google.com/citations?user=fWtVF_sAAAAJ&hl=en)

<https://orcid.org/0000-0002-6243-1952>

**5. Describe your professional self [your biography – Two Paragraph summary max.]**

**Education**

Auburn University, PhD                    2012  
University of the Ryukyus, MSc    2006  
University of Nairobi, BSc                2003

**5. Area/ Field of specialization:** Organic Chemistry

**6. Research interests:** Organic synthesis, Natural Products, Nanoscience/Nanotechnology, Green chemistry

7. List some of your key published works.

**Peer-reviewed Publications**

- ❖ Madivoli, E. S., Kareru, P. G., Gachanja, A. N., **Makhanu, D. S.**, Mugo, S. M. "Cellulose-Based Hybrid Nanoarchitectonics with Silver Nanoparticles: Characterization and Antimicrobial Potency" J. Inorg. Organomet. Polym., **2022**.
- ❖ Madivoli, E. S., Kareru, P. G., **Makhanu, D. S.**, Wandera, K. S., Maina, E. G., Wanakai, S. I., Kimani, P.K. "Synthesis of Spherical Titanium Dioxide Microspheres and their Application to Degrade Rifampicin" Environmental Nanotechnology Monitoring and Management, **2020**
- ❖ Madivoli, E. S., Kareru, P. G., Gachanja, A. N., Mugo, S. M. **Makhanu, D. S.**, Fromm, K. "Isolation of Cellulose Nanofibers from Oryza sativa Residues via TEMPO Mediated Oxidation" Journal of Natural Fibers, **2020**.
- ❖ Madivoli, E. S., Kareru, P. G., Gachanja, A. N., Mugo, S. M. **Makhanu, D. S.**, Wanakai, S. I., Gavamukyula, Y. "Facile Synthesis of Silver nanoparticles using lantana trifolia aqueous extracts and their antibacterial activity" J. Inorg. Organomet. Polym., **2020**.
- ❖ Wanakai, S. I., Kareru, P. G., **Makhanu, D. S.**, Madivoli, E. S., Maina, E. G., Nyabola, A. O. "Catalytic degradation of methylene blue by iron nanoparticles using Galinsoga parviflora, Conyza bonariensis and Bidens pilosa leaf extracts" Springer Nature (SN) Applied Sciences, **2019** 1: 1148
- ❖ Madivoli, E. S., Kareru, P. G., Gachanja, A. N., Mugo, S. M. **Makhanu, D. S.** "Synthesis and characterization of dialdehyde cellulose nanofibers from O. sativa husks" Springer Nature (SN) Applied Sciences, **2019** 1: 723
- ❖ Madivoli, E. S., Kareru, P. G., Gachanja, A. N., Mugo, S. M. **Makhanu, D. S.** "Phytofabrication of iron nanoparticles and their catalytic activity" Springer Nature (SN) Applied Sciences, **2019** 1: 879