

**PROF. SAID A. H. VUAI**

Deputy Vice Chancellor – Academic, Research and Consultancy

Mbeya University of Science and Technology  
(MUST)

P.O. Box 131  
Mbeya, Tanzania

Tel: +255 26 2310009

+255 735045630 (mobile)

+255 653545630 (mobile)

Email:said.vuai@must.ac.tz

Website: <http://www.must.ac.tz/home>

**Nationality:** Tanzanian  
**Marital Status:** Married  
**Date of Birth:** November 9th, 1972

---

### Summary, Competency, and Experience

Prof. Said A. H. Vuai received a BSc (Chemical and Process Engineering) from the University of Dar es Salaam from 1993 to 1997, and MSc. and Ph.D. (Marine and Environmental Sciences, specialized in Environmental Analytical Chemistry and Geochemistry) from the University of the Ryukyus, Okinawa Japan between 1999 and 2004. He was awarded a Post Doc Fellowship to undertake the Environmental Sustainability Assessment using Life Cycle Assessment, Emergy, and Ecological Footprint at the University of Siena, Italy in 2014.

Professor Vuai is a Professor of Chemistry and Deputy Vice Chancellor- Academic, Research and Consultancy at Mbeya University of Science and Technology. Before this appointment, he served the position of Principal, College of Natural and Mathematical Sciences of the University of Dodoma from July 2016 to June 2024, Dean of the School of Mathematical Sciences at the College of Natural and Mathematical Sciences from 2011 to 2017 and Head of the Department position from 2009 to 2011.

Professor Vuai is the founder and Director of Dodoma Demographic Surveillance System located in Chamwino District, Dodoma. Professor Vuai is a member of the African Research Implementation Science and Education (ARISE) Network, which includes nine countries from Africa, Europe, and the USA. He has collaborated with renowned research groups from the USA, Germany, Italy, Spain, Japan, South Africa, and the UK. Professor Vuai has extensive experience in organizing scientific conferences, summer schools, and translating scientific findings into policy issues.

Prof. Vuai's is multidisciplinary researcher in the area of computational biochemistry for drug development and discovery, forensic toxicology, assessment of domestic water contamination, developing appropriate municipal solid waste management technology to improve public health in urban communities, assessment of trace metal concentration in the atmosphere and their associated health impacts, and application of life cycle assessment method to assess environmental and human toxicity in agriculture. Additionally, Prof. Vuai's research covers assessment of nutritional status among women of reproductive age, integration of maternal and newborn care, school gardens as a nutritional intervention, substance abuse, and adolescent health.

Throughout his academic career, Professor Vuai has been involved in numerous national, regional, and international projects. He has served as a Principal Investigator for projects funded by organizations such as Erasmus+, UNICEF, TWAS, CODESREA, COSTECH, and VicRes. Additionally, Prof. Vuai has authored or co-authored over 80 refereed scientific papers published in reputable journals and publishers including Elsevier, Springer, Taylors and Francis, and the Royal Society of Chemistry. Prof. Vuai also authors two patents and four innovation grants funded by COSTECH and UDOM.

He has served as a member of various research and academic governing boards, for example, Chairperson of Advisory Board, Chief Government Chemistry Laboratory Agency, Zanzibar, Government Chemistry Laboratory Authority, the University of Dodoma Governing Board, the Basic

Science Advisory Committee of the Tanzania Commission of Science and Technology, the National Stakeholder Advisory Forum for the Africa Stockpile Program, and the National Environmental Management Council. Prof. Vuai also serve as Chairperson for International Committee for Review of Doctor of Philosophy in Natural and Applied Sciences of Namibia University of Science and Technology organized by National Council for Higher Education, Namibia.

## 1. EDUCATION

Degree (Award)	Institution	Field	Date
Post Doc	University of the Siena, Italy	Environmental Sustainability Assessment	2013-2014
Ph.D	University of the Ryukyus, Japan	Marine and Environmental Sciences	2001-2004
M.sc	University of the Ryukyus, Japan	Chemistry, Biology and Marine Sciences (Chemistry Major)	1999-2001
B.sc	University of Dar es Salaam, Tanzania	Chemical and Processing Engineering	1993-1997
Advance Certificate	Fidel Castro High School, Zanzibar	Physics, Chemisty, Maths	1990-1992
Secondary School	Fidel Castro High School, Zanzibar	Science & Arts Subjects	1986-1989
Primary School	Mchangamdogo Primary School, Zanzibar	Primary education	1978-1985

## 2. FELLOWSHIPS/SCHOLARSHIPS/AWARDS

Institution	Name of Fellowship/Scholarship/Award	Field	Date
University of the Siena, Italy	Post Doctoral Fellowship	Environmental Sustainability Assessment	2013-2014
University of the Ryukyus, Japan	Ministry of Education Japan Scholarship	Marine, Environmental Sciences & Ecotoxicology	1999-2004
The University of Dodoma, Tanzania	UDOM Best Overall Worker Award	Academic	2016

### **3.PREVIOUS EMPLOYMENT AND ACADEMIC EXPERIENCE /EXCHANGE**

<b>Institution</b>	<b>Rank (status)</b>	<b>Field/Institute</b>	<b>Date</b>
3.1 The University of Dodoma, Tanzania	Professor	Chemistry	April 2022-present
3.2 The University of Dodoma, Tanzania	Principal, College of Natural and Mathematical Sciences	College of Natural and Mathematical Sciences	August 2016-June 2024
3.3 The University of Dodoma, Tanzania	Associate Professor	Chemistry	April 2013-March 2022
3.4 The University of Dodoma, Tanzania	Dean, School of Mathematical Sciences	College of Natural and Mathematical Sciences	July 2011-June 2017
3.5 The University of Dodoma, Tanzania	Head, Department of Physical Sciences	College of Natural and Mathematical Sciences	December 2008-June 2011
3.6 The University of Dodoma, Tanzania	Senior Lecture, Department of Physical Sciences	Marine and Environmental Chemistry	October 2008- March 2013
3.7 State University of Zanzibar, Zanzibar	Lecturer, Department of Science	Marine and Environmental Chemistry	December 2004-October 2008

## 2. ADMINISTRATIVE POSTS & APPOINTMENTS

June, 2016-  
present

1. Member, of Basic Science Advisory Committee – Tanzania  
Commission of Science and Technology Oct 2021-present
2. Chairman, College Board of Natural and Mathematical Sciences-  
UDOM Aug 2016-June 2024
3. National Stakeholder Advisory Forum for Africa Stockpile Program
4. Member, of the University of Dodoma Library Dec 2016-June2024
5. Member, the University of Dodoma, Committee/Boards Aug 2016-present
6. Member, the University of Dodoma, Planning, Finance, and Estate Aug 2016-June2024
7. Member, the University of Dodoma Quality Assurance Aug 2016-June2024
8. Member, of the University of Dodoma Workers Council Aug 2016-June2024
9. Member, Africa Research Implementation Science and Education  
(ARISE) Network 2016-present
10. Member, of the University of Dodoma Human Resource Committee July 2014-June2024
11. Member, School Board of Mining and Petroleum Engineering-  
UDOM July 2014-2019  
Member, College Board of Earth Sciences
12. July 2014-2019
13. Member, of the University of Dodoma Senate July 2011-June2024
14. Member, of the University of Dodoma Advisory Committee July 2011-June2014
15. Member, College Board of Natural and Mathematical Sciences-  
UDOM July 2011-2017
16. Member, School Board of Natural Sciences and Mathematics 2009-2011
17. Member, the University Senate of Research and Publication 2009-2010
18. Member, Society of Environmental Toxicology and Chemistry  
(SETAC) 2006-present
19. Member, West Indian Ocean Marine Research Association  
(WIOMSA) 2004-present

### 3. CERTIFIED SHORT COURSES

Institute/Country	Field	Date
5.1 East Africa Community, Arusha, Tanzania	Disaster Management	2021
5.2 Tanzania Commission University, Morogoro, Tanzania	University Leadership Management	2014

### 4. PUBLICATIONS (REFEREED)

1. Dongqing Wang, Leonard K Katalambula, Andrea R Modest, Abbas Ismail, Augustine Malero, Dayana Bray, Haley Cinq-Mars, Amani Tinkasimile, Mary Mwanyika Sando, **Said Vuai**, Wafaie W Fawzi. Meals, Education, and Gardens for In-School Adolescents: A Cluster Randomized Trial of an Adolescent Nutrition Intervention Package in Tanzania. *Journal of Adolescent Health*, 2024, <https://doi.org/10.1016/j.jadohealth.2024.02.032>
2. Asha Ripanda, Mwemezi J Rwiza, Elias Charles Nyanza, Linda Numph Bih, Miraji Hossein, Ramadhani Bakari, Somit Kumar Sigh, Giridhar Reddy, CR Ravikumar, HC Ananda Murthy, Karoli N Njau, **Said Ali Hamad Vuai**, Revocatus L Machunda. Optimizing ciprofloxacin removal from water using jamun seed (*Syzygium cumini*) biochar: A sustainable approach for ecological protection. *HydroResearch*, Volume 7, 2024, pp.164-180 <https://doi.org/10.1016/j.hydres.2024.03.001>
3. Surendra Babu Numbury, Mwanahadia Salum Khalfan, **Said AH Vuai**. Theoretical studies of electronic and optical characteristics in Donor- $\pi$ -Acceptor (D- $\pi$ -A) dyes: DFT and TD-DFT methods. *Oxford Open Materials Science*, Volume 4, Issue 1, 2024, pp. 1-11 <https://doi.org/10.1093/oxfmat/itad022>
4. A.S Ripanda, B.B.L. Srivastava, A.A. Nyundo, H. Miraji, and **S.A.H. Vuai**. Prevalence and factors associated with designer cathinones and amphetamine use among Outpatients attending methadone Clinic at Mwananyamala Hospital Dar es Salaam, Tanzania. *Ethics, Medicine and Public Health*, Volume 28, 2023, pp. 100892 <https://doi.org/10.1016/j.jemep.2023.100892>
5. Asha Ripanda, Mwemezi J Rwiza, Elias Charles Nyanza, Ramadhani Bakari, Hossein Miraji, Karoli N Njau, **Said Ali Hamad Vuai**, and Revocatus L Machunda. Removal of lamivudine from synthetic solution using jamun seed (*Syzygium cumini*) biochar adsorbent. *Emerging Contaminants*, 2023, pp.1-17 <https://doi.org/10.1016/j.emcon.2023.100232>

6. Asha Ripanda, Mwemezi J Rwiza, Elias Charles Nyanza, Ramadhani Bakari, Hossein Miraji, Karoli N Njau, **Said Ali Hamad Vuai**, and Revocatus L Machunda. Data from the batch adsorption of ciprofloxacin and lamivudine from synthetic solution using jamun seed (*Syzygium cumini*) biochar: Response surface methodology (RSM) optimization. *Data in Brief, Volume 47, 2023, 108975* <https://doi.org/10.1016/j.dib.2023.108975>
7. Dongqing Wang, Olufemi A Adedokun, Ouhohiré Millogo, Isabel Madzorera, Elena C Hemler, Firehiwot Workneh, Frank Mapendo, Bruno Lankoande, Abbas Ismail, Angela Chukwu, Nega Assefa, Sulemana Watara Abubakari, Isaac Lyatuu, Daniel Okpara, Yasir Y Abdullahi, Pascal Zabre, **Said Vuai**, Abdramane Bassiahi Soura, Emily R Smith, Ali Sie, Ayoade MJ Oduola, Japhet Killewo, Yemane Berhane, Till Baernighausen, Kwaku Poku Asante, Tajudeen Raji, Mary Mwanyika-Sando, and Wafaie W Fawzi. The continued impacts of the COVID-19 pandemic on education and mental health among sub-Saharan African adolescents. *Journal of Adolescent Health, Volume 72, Issue 4, 2023, pp. 535-543* <https://doi.org/10.1016/j.jadohealth.2022.11.012>
8. Anoop Kumar Pandeya, Apoorva Dwivedib Avinash KumarMishraa Satyendra Nath Tiwaria **Said A. H. Vuai**, Vijay Singh. Quantum chemical study of effect on adsorption properties of antituberculosis drug N-Cyclopentylidenepyridine-4-carbohydrazide interaction with CNT (C56H16) *Elsevier, Volume 100, Issue 1, 2023, pp. 1-10* <https://doi.org/10.14746/logos.2022.28.3.0003>
9. Asha Shabani Ripanda, Mwemezi J Rwiza, Elias Charles Nyanza, Hossein Miraji, Numfor Linda Bih, Alexandra Mzula, Elisa Mwega, Karoli N Njau, **Said Ali Hamad Vuai**, and Revocatus L Machunda. Antibiotic-resistant microbial populations in urban receiving waters and wastewaters from Tanzania. *Environmental Chemistry and Ecotoxicology, Volume 5, 2023, pp. 1-8* <https://doi.org/10.1016/j.enceco.2022.10.003>
10. Mohamed Zengo Makongoro, Maheswara Rao Vegi, **Said Ali Hamad Vuai**, Michael Mwita Msabi. Radiometric dating of the Ootun palaeosol and its implication for the age of the Shifting Sand in Ngorongoro Lengai Geopark (Arusha, Tanzania). *sciendo, Volume 28, Issue 3, 2022, pp. 203-215* <https://doi.org/10.14746/logos.2022.28.3.0003>
11. **Said Ali Hamad Vuai**, Mtabazi Geoffrey Sahini, Khalfani Salim Sule, Asha Shabani Ripanda, and Hossein Miraji Mwanga. A comparative in-vitro study on antimicrobial efficacy of on-market alcohol-based hand washing sanitizers towards combating microbes and its application in combating Covid-19 global outbreak. *Heliyon, Volume 8, Issue 11, 2022, pp. 1-6* <https://doi.org/10.1016/j.heliyon.2022.e11689>
12. Mohamed Zengo Makongo Maheswara Rao Vegi, **Said Ali Hamad Vuai**, and Michael Mwita Msabi. Geochemical, Mineralogical, and Geomorphological Characterization of Ash Materials as a Tracer for the Origin of Shifting Sands near Oldupai Gorge, Ngorongoro, Tanzania. *Hindawi, Volume 2022, Article ID 2593944, pp. 1-16* <https://doi.org/10.1155/2022/2593944>
13. Asha Shabani Ripanda, Mwemezi J. Rwiza, Elias Charles Nyanza, Hossein Miraji, Numfor Linda Bih, Alexandra Mzula, Elis Mwega, Karoli N. Njau, **Said Ali Hamad Vuai**, Revocatus L.

- Machunda. Antibiotic-resistant microbial populations in urban receiving waters and wastewaters from Tanzania. *Environmental Chemistry and Ecotoxicology*, Volume 5, 2022, pp. 1-8  
<https://doi.org/10.1016/j.encco.2022.10.003>
14. Mohamed Zengo Makongoro, Maheswara Rao Vegi, **Said Ali Hamad Vuai**, and Michael Mwita Msabi. Chronostratigraphic Studies of the Ootun Area Revealing the Late Holocene Plume Volcanism of the Oldoinyo Lengai, Ngorongoro, Tanzania. *Hindawi Geofluids Volume 2022*, Article ID 2429548, pp.1-16  
<https://doi.org/10.1155/2022/2429548>
15. David Mihayo, Maheswara Rao Vegi, and **Said Ali Hamad Vuai**. Attenuation of nitrate from aqueous solution using raw and surface modified biosorbents from *Adansonia digitata* fruit pericarp. *Heliyon*, 2022, pp.1-13  
<https://doi.org/10.1016/j.heliyon.2022.e10004>
16. Asha S Ripanda, Mwemezi J. Rwiza, Elias Charles Nyanza, Revocatus L. Machunda, and **Said Hamadi Vuai**. Contribution of Illicit Drug Use to Pharmaceutical Load in the Environment: A Focus on Sub-Saharan Africa. *Hindawi Journal of Environmental and Public Health Volume 2022*, Article ID 9056476, pp.1-13  
<https://doi.org/10.1155/2022/9056476>
17. Dongqing Wang, Leonard Kamanga Katalambula, Andrea R. Modest, Tara Young, Abbas Ismail, Mary Mwanyika-Sando, Amani Tinkasimile, Dominic Mosha, Augustine Malero, **Said Vuai**, and Wafaie W Fawzi. Meals, Education, and Gardens for In-School Adolescents (MEGA): study protocol for a cluster randomised trial of an integrated adolescent nutrition intervention in Dodoma, Tanzania. *BMJ Journals 2022*, Volume 12, Issue\_\_7, pp.1-7  
<http://dx.doi.org/10.1136/bmjopen-2022-062085>
18. Benard S. Mwankemwa, Thembinkosi D. Malevu, Mtabazi G. Sahini, and **Said A. Vuai**. Effects of vertically aligned ZnO nanorods surface morphology on the ambient-atmosphere fabricated organic solar cells. *Elsevier*, 2022, Vol. 14 pp.1-8  
<https://doi.org/10.1016/j.rinma.2022.100271>
19. **Said A.H. Vuai**, Characterization of agar extracted from *Gracilaria* species collected along Tanzanian coast. *Heliyon*, 2022, pp.1-6  
<https://doi.org/10.1016/j.heliyon.2022.e09002>
20. Ismail Abubakari, Numbury Surendra Babu, **Said Vuai**, and John Makangara. Synthesis and photocurrent density–photovoltage (J-V) characterization of a novel alizarin derivative dye for dye-sensitized solar cell technology. *International Journal of Energy and Environmental Engineering*, 2022, pp. 1-15  
<https://doi.org/10.1007/s40095-021-00460-7>
21. Asha Ripanda, Hossein Miraji, Khalfani Sule, Salvatory Nguruwe, Julias Ngumba, Geoffrey Sahini Mtabazi, and **Saidi Hamad Vuai**. Evaluation of potentiality of traditional hygienic

practices for the mitigation of the 2019 -2020 Corona Pandemic. *Public Health Nursing*, 2022, pp. 1-9

<https://doi.org/10.1111/phn.13054>

22. Daniel M. Shadrack, **Said A. H. Vuai**, Mtabaz G. Sahini and Isaack Onoka. In silico study of the inhibition of SARS-COV-2 viral cell entry by neem tree extract. *Royal Society of Chemistry Advances*, 2021, pp.26524–26533

<https://doi.org/10.1039/d1ra04197e>

23. Numbury Surendra Babu and **Said A.H. Vuai**. Theoretical studies of optoelectronic and photovoltaic properties of D–A polymer monomers by Density Functional Theory (DFT). *Designed Monomers and Polymers*, (2021), Vol. 24 (1), pp.224-237

<https://doi.org/10.1080/15685551.2021.1956209>

24. Asha S. Ripanda , Mwemezi Johaiven Rwiza, Elias C. Nyanza, Karoli Njau, **Said A. H. Vuai** and Revocatus L. Machunda. A Review on Contaminants of Emerging Concern in the Environment: A Focus on Active Chemicals in sub-Saharan Africa. *MDPI Applied Sciences*, (2021), Vol. 12 (1), pp.1-30 <https://doi.org/10.3390/app12010056>

25. Naserian D. Kambaine, Daniel M. Shadrack and **Said A.H. Vuai**. Conformations and Stability of Capsaicin in Bulk Solvents: A Molecular Dynamics Study. *Elsevier Journal of Molecular Liquids*, (2021), Vol. 345 (1), pp.1-9 <https://doi.org/10.1016/j.molliq.2021.117794>
26. **Said A. H. Vuai**, Marcelina M. Ogedjo, Onoka Isaac, Mtabazi G. Sahini, Hulda S. Swai, and Daniel M. Shadrack. Relaxed complex scheme and molecular dynamics simulation suggest a small-molecule inhibitor of human TMPRSS2 for combating COVID-19. *Taylor and Francis Journal of Biomolecular Structure & Dynamics*. 2021, pp.1-11  
<https://doi.org/10.1080/07391102.2021.1997817>
27. **Said A. H. Vuai**, Isaac Onoka, Mtabazi G. Sahini, Hulda S. Swai and Daniel M. Shadrack. Abrogating the nsp10–nsp16 switching mechanisms in SARS-CoV-2 by phytochemicals from *Withania somnifera*: a molecular dynamics study. *Taylor and Francis, Molecular Simulation*. Vol. 47 (16), 2021 pp.1372-1380  
<https://doi.org/10.1080/08927022.2021.1974432>
28. **Said A. H. Vuai**, Mtabazi G. Sahini, Isaac Onoka, a Lucy W. Kirurib and Daniel M. Shadrack. Cation  $-\pi$  interactions drive hydrophobic self-assembly and aggregation of niclosamide in water. *Royal Society of Chemistry (RSC) Advances*. Vol. 2021 (52), 2021, pp.33136-33147  
<https://doi.org/10.1039/d1ra05358b>
29. **Said A.H. Vuai**, Mwanahadia Salum Khalfan, Numbury Surendra Babu. DFT and TD-DFT studies for optoelectronic properties of coumarin based donor- $\pi$ -acceptor (D- $\pi$ -A) dyes: Applications in dye-sensitized solar cells (DSSCs). *Elsevier Heliyon*. Vol. 7 (11), 2021, pp.1-12  
<https://doi.org/10.1016/j.heliyon.2021.e08339>
30. David Mihayo, Maheswara Rao Vegi and **Said Ali Hamad Vuai**. Defluoridation of Aqueous Solution Using Thermally Activated Biosorbents Prepared from *Adansonia digitata* Fruit Pericarp. *Hindawi Adsorption Science & Technology*. Vol. 2021, 2021 pp. 1-16  
<https://doi.org/10.1155/2021/5574900>
31. **Said A.H. Vuai** and Numbury Surendra Babu. Theoretical design of low bandgap donor-acceptor (D-A) monomers for polymer solar cells: DFT and TD-DFT study. *Taylor and Francis Designed Monomers and Polymers*. Vol. 24 (1), 2021 pp.125-137  
<https://doi.org/10.1080/15685551.2021.1921923>

32. David Mihayo, Maheswara Rao Vegi and **Said Ali Hamad Vuai**. Defluoridation of aqueous solution using raw and surface modified biosorbents prepared from adansonia digital fruit pericarp. *Taylor and Francis Journal of Dispersion Science and Technology*. Vol. 42 (13), 2021, pp.1-13  
<https://doi.org/10.1080/01932691.2021.1880925>
33. Juma Mzume Juma and **Said AH Vuai**. Computational studies of the thermodynamic properties, and global and reactivity descriptors of fluorescein dye derivatives in acetonitrile using density functional theory. *SAGE Journal of Chemical Research*. Vol. 45 pp.7-8, 2021 pp.800-805  
<https://doi.org/10.1177/1747519821994518>
34. Elena C. Hemler, Michelle L. Korte, Bruno Lankoande, Ouhohire Millogo, Nega Assefa, Angela Chukwu, Firehiwot Workneh, Amani Tinkasimile, Isaac Lyatuu, Abdramane Soura, Dongqing Wang, Isabel Madzorera, **Said Vuai**, Till B. Barnighausen, Mary Mwanyika Sando, Japhet Killewo, Ayoade Oduola, Ali Sie, Yemane Berhane, and Wafaie W. Fawzi. Design and Field Methods of the ARISE Network COVID-19 Rapid Monitoring Survey. *The American Society of Tropical Medicine and Hygiene*. Vol. 105 (2), 2021 pp. 310-322  
<https://doi.org/10.4269/ajtmh.20-1618>
35. Ismail Abubakari, Numbury Surendra Babu, **Said Vuai**, and John Makangara. Optical and photovoltaic properties of substituted alizarin dyes for dye-sensitized solar cell application. *Taylor and Francis Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*. Vol. 43 (20), 2021 pp. 2569-2582  
<https://doi.org/10.1080/15567036.2020.1836083>
36. Ismail Abubakari, Surendra Babu, **Said Vuai** and John Makangara. 2-Hexylthiophene-substituted Alizarin based (D--A) Organic Dyes for Dye-sensitized Solar Cell Applications. *SAGE Journal of Chemical Research*. Vol. 45 (1-2), 2020 pp. 13-20  
<https://doi.org/10.1177/1747519820922450>
37. Anne Marie Darling<sup>1</sup>, Nega Assefa, Till B Barnighausen, Yemane Berhane, Chelsey R. Canavan, David Guwatudde, Japhet Killewo, Ayoade Oduola, Mary M. Sando, Ali Sie, Christopher Sudfeld, **Said Vuai**, Richard Adanu, and Wafaie W. Fawzi. Design and field methods of the ARISE Network Adolescent Health Study. *Tropical Medicine & International Health*. Vol. 25 (1), 2019 pp. 5-14.  
<https://doi.org/10.1111/tmi.13327>

38. Yemane Berhane<sup>1</sup>, Chelsey R. Canavan, Anne Marie Darling, Christopher R. Sudfeld, **Said Vuai**, Richard Adanu, Till B Barnighausen, Yadeta Dessie, Justine Nnakate Bukenya, David Guwatudde, Japhet Killewo, Mary M. Sando, Ali Sie, Ayoade M. J. Oduola and Wafaie W. Fawzi. The age of opportunity: Prevalence of key risk factors among adolescents 10-19 years of age in nine communities in sub-Saharan Africa. *John Wiley & Sons Lt Tropical Medicine & International Health*. Vol. 25 (1), 2019, pp. 15-32 <https://doi.org/10.1111/tmi.13339>
39. Abbas Ismail<sup>1</sup>, Anne Marie Darling, Dominic Mosha, Wafaie Fawzi, Christopher Sudfeld, Mary Mwanyika Sando, Ramadhani Abdallah Noor, James Charles, and **Said Vuai**. Prevalence and Risk Factors Associated with Malnutrition among Adolescents in Rural Tanzania. *John Wiley & Sons Lt Tropical Medicine & International Health*. Vol. 25 (1), 2019, pp. 89-100 <https://doi.org/10.1111/tmi.13331>
40. Asha Shabani Ripanda, Bajarang Bal Lal Srivastava, **Said Hamad Vuai**, Azan A Nyundo. Prevalence and factors associated with continual opioid use among patients attending methadone clinic at Mwananyamala Hospital, Dar es Salaam, Tanzania. *Elsevier Forensic Science International: Reports*. Vol. 1, 2019, pp.1-7 <https://doi.org/10.1016/j.fsir.2019.100037>
41. **Said Ali Hamad Vuai** and Farid Mpatani. Optimization of agar extraction from local seaweed species, *Gracilaria salicornia* in Tanzania. *Phycological Research* Vol. 67 (4), 2019, pp.261-266. <https://doi.org/10.1111/pre.12380>
42. Juma Mzume Juma, **Said Ali H. Vuai**, and N. Surendra Babu. TD-DFT Investigations on Optoelectronic Properties of Fluorescein Dye Derivatives in Dye-Sensitized Solar Cells (DSSCs). *Hindawi International Journal of Photoenergy*. Vol. 2019, 2019 pp. 1-8 <https://doi.org/10.1155/2019/4616198>
43. Farid Mzee Mpatani and **Said Ali Hamad Vuai**. Performance of Low-Cost Agar from *Gracilaria salicornia* on Tissue Culture of *Pleurotus HK-37*. *Scientific World Journal Volume, Article ID 2565692*, 2019, 7 pages <https://doi.org/10.1155/2019/2565692>

44. Megan Huang, Christopher Sudfeld, Abbas Ismail, **Said Vuai**, Julius Ntwenya, Mary Mwanyika-Sando, and Wafaie Fawzi. Maternal Dietary Diversity and Growth of Children Under 24 Months of Age in Rural Dodoma, Tanzania. *SAGE Food and Nutrition Bulletin*. Vol. 39 (2), 2018 pp. 219-230  
<https://doi.org/10.1177/0379572118761682>
45. Abdalla H. Mtumwa<sup>1</sup>, Julius Edward Ntwenya, Edwin Paul, Megan Huang and **Said Vuai**. Socio-economic and spatial correlates of subclinical iodine deficiency among pregnant women age 15-49 years in Tanzania. *Springer Nature BMC Nutrition*. Vol. 3 (47) 2017 pp. 1-10  
<https://doi.org/10.1186/s40795-017-0163-1>
46. Getachew Redae Taffere, Abebe Beyene, **Said A. H. Vuai**, Janvier Gasana and Yilma Seleshi. The dilemma of roof rainwater quality: applications of physical and organic treatment methods in a water scarce region of Makelle, Ethiopia. *Taylor and Francis Urban water Journal*. Vol. 14 (5), 2016 pp. 460-466  
<https://doi.org/10.1080/1573062X.2016.1176225>
47. AH Mtumwa, E Paul and **SAH Vuai**. Determinant of under nutrition among Women in the Reproductive age Group in Mainland Tanzania *Taylor and Francis South African Journal of Clinical Nutrition*. Vol. 29 (2), 2016 pp. 75-81  
<https://doi.org/10.1080/16070658.2016.1216509>
48. Edwin Paul, Abdalla H. Mtumwa, Julius Edward Ntwenya, and **Said A. H. Vuai**. Disparities in Risk Factors Associated with Obesity between Zanzibar and Tanzania Mainland among Women of Reproductive Age Based on the 2010 TDHS. *Hindawi Journal of Obesity*. Vol. 2016, 2016 pp. 1-10. <https://doi.org/10.1155/2016/1420673>
49. Getachew Redae Taffere, Abebe Beyene, **Said A.H. Vuai**, Janvier Gasana and Yilma Seleshi. Reliability analysis of roof rainwater harvesting systems in a semi-arid region of sub-Saharan Africa: case study of Mekelle, Ethiopia. *Taylor and Francis Hydrological Sciences Journal*. Vol. 61(6), 2016 pp. 1135-1140. <https://doi.org/10.1080/02626667.2015.1061195>
50. Fabrizio Saladini, **Said A. Vuai**, Benard K. Langat, Mathias Gustavsson, Richard Bayitse , Andrew B. Gidamis, Mohammed Belmakki, Amal S. Owis, Konanani Rashamuse, Daniel N. Sila, Simone Bastianoni. Sustainability assessment of selected bio wastes as feedstocks for bio fuel material production by evaluation in five African countries. *Elsevier Biomass & Bioenergy*. Vol. 85, 2016 pp. 100-108. <https://doi.org/10.1016/j.biombioe.2015.11.016>
51. Getachew Redae Taffere, Abebe Beyene, **Said A.H. Vuai**, Janvier Gasana and Yilma Seleshi. Location and time-specific investigation of roof rainwater quality is important to safe guard public health. *Taylor and Francis Desalination and Water Treatment*. Vol. 57(43), 2015 pp. 20318-20326. <https://doi.org/10.1080/19443994.2015.1107757>
52. **Said A.H. Vuai** (2015) Aluminum, Silicon and Nutrients Characteristics in Precipitation of Semi-Arid Area in Dodoma Municipality, Tanzania. *International Journal of Environment and Toxicological Research* 92-100.

53. Morris Frank Hiji, Justin William Ntalikwa and **Said Ali Vuai**. Producing sulphuric acid in Tanzania and potential sources. *American Journal of Chemistry and Applications Vol. 1(4), 2014 pp. 40-44*  
<http://www.openscienceonline.com/journal/ajca>
54. Said S. Bakari, Per Aagaard, Rold D. Vogt, Fridtjov Ruden, Ingar Johansen and **Said Ali Vuai**. (2013) Strontium isotopes as tracers for quantifying mixing of groundwater in the alluvial plain of a coastal watershed, South-Eastern Tanzania, *Applied Geochemistry*.
55. **Vuai, S. A. H.**, Mungai, N. W, and Ibembe, J.D. (2012) Effect of Landuse Activities on Spatial and Temporal Variation of Nutrients deposition in Mwanza Region: Implication to the Atmospheric loading to the Lake Victoria. *Atmospheric and Climate Sciences*.
56. Hassan Rashid Ali, Nyakairu J. and **Said A. Vuai** (2012). Influence of tides to the cave water quality: A case study on Zanzibar Island, Tanzania. *International Journal of Current Research Vol, 4, Issue, 04, pp.327-33*.
57. **Vuai, S.A.H.**, Mungai, N.W. and Ipembe, J.D. Spatial variation of Nutrients in Sondu-miriu and Simiyu-Duma Rivers: Implication on sources and factors influencing their transportation into the Lake Victory, *Journal of Earth Sciences and Climate Change, 2012, Vol. 3(119)*.  
<https://doi.org/10.4172/2157-7617.1000119>
58. **Vuai S.A.H** (2012). Microbial and nutrient contamination of domestic well in Urban-West Region, Zanzibar, Tanzania. *Air and Water Born Diseases, Vol. 1 (102)*.  
<https://doi.org/10.4172/2167-7719.1000102>

59. **Said Suleiman Bakari**, Per Aagaard, Rold D. Vogt, Fridtjov Ruden, Ingar Johansen and **Said Ali Vuai** (2012). Delineation of groundwater provenance in a coastal aquifer using statistical and isotopic methods, Southeast Tanzania, *Environmental Earth Sciences*: 66, 889–902 <https://doi.org/10.1007/s12665-011-1299-y>
60. Ali, H.R., Nyakairu, G.W. and **Vuai S.A** (2012) Determination of Chemical Composition of Cave water: A case study of Zanzibar Island, *Tanzania International Journal of Current Research*, 4:327-334, 2012.
61. Nancy W. Mungai, Njue A.M., Abaya Samuel G., **Vuai Said A. H.** and Ibembe John D. (2011) Periodic flooding and land use effects on soil properties in Lake Victoria basin African. *Journal of Agriculture Research Vol. 6 (19)*,4613-4623 pp. <http://hdl.handle.net/20.500.12661/3329>
62. John Daniel Bakibinga-Ibembel, **Vuai A. Said** and Nancy W. Mungai (2011) Environmental laws and policies related to periodic flooding and sedimentation in the Lake Victoria Basin (LVB) of East Africa. *African Journal of Environmental Science and Technology Vol. 5(5)*, 367-380 pp. ISSN 1996-0786
63. **Vuai, S.A.H.** Spatial and Temporal variation of nutrient along Simiyu- Duma and Sondu Miriu River, Land Use and Natural Resources Cluster workshop, 30<sup>th</sup> October to 2<sup>nd</sup> November, 2011, Nairobi, Kenya.
64. **Vuai, S.A. H.** Mungai, N.W and Ibembe, J.D. Socio-economic and ecological impacts of periodic sedimentation on the livelihoods of flood plain communities of Lake Victoria. Lake Victoria Research (VicRes) Initiative Biennial Forum from 9<sup>th</sup> to 13<sup>th</sup> October 2011, Monyonyo, Kampala, Uganda.
65. **Said Ali Hamad Vuai** and Tokuyama, A. (2011) Trend of trace metals in precipitation around Okinawa Island, Japan *Atmosphere Research, Volume 99, (1) 99, 80-84* <https://doi.org/10.1016/j.atmosres.2010.09.010>
66. **Said Ali Hamad Vuai.** (2010). Characterization of MSW and related waste-derived compost in Zanzibar municipality. *Waste Management and Research*, 29, 177-184. PMID: 19748949 <https://doi.org/10.1177/0734242X09335699>
67. **Said Ali Vuai**, Kazuyo Nakamura and Akira Tokuyama (2003). Geochemical characteristics of runoff acid sulfate soil in the Northern area of Okinawa Island, Japan. *Geochemical Journal*, Vol. 37, pp. 579-592 <https://doi.org/10.2343/geochemj.37.579>
68. **Said Ali Vuai**, Maki Ishiki and Akira Tokuyama. Acidification of freshwater by red soils in subtropical 1 silicate rock area, Okinawa, Japan (2003). *Limnology*, Vol. 4. Pp. 63-71 <https://doi.org/10.1007/s10201-003-0096-z>

69. Mohamed Mkadam Kombo, Said Ali Vuai and Akira Tokuyama (2003). Impact of acidic red soil on pH and aluminium under the soil seawater interacting environment. *Bulletin of Faculty of Science, University of the Ryukyus, No. 75 pp. 75-87*
70. Said Ali Vuai, Mariko Yonashiro and Akira Tokuyama (2000). Effect of ionic strength on the absorbance in aluminum- Tiron complex. *Bulletin of Faculty of Science, University of the Ryukyus, No. 71 pp. 71-77*

## 5. BOOKS & THESES

1. Bakibinga Ibembem J.D., Mungai, N.W and **Said A. Vuai** (2011). Effect of periodic folding and sedimentation of Community Livelihoods in Sondu-Miriu Flood plain, Kenya, *Natural Resources Management and Land Use, Proceedings of the cluster workshop, Inter-University Council for East Africa, Lake Victoria Research Initiative ISBN978-9970-452-02-6. (BOOK)*
2. Ouma, K.O., Mungai N. W., **Said A.H. Vuai** and Bembe, J.d. (2011) Spatial-Temporal Variation of Nitrogen, Phosphorous and Sediments in surface runoff and adjacent river system in Sondu-Miriu Bains, Kenya, *Natural Resources Management and Land Use, Proceedings of the Cluster workshop, inter-University Council for East Africa, Lake Victoria Research Initiative, ISBN978-9970-452-02-6 (BOOK).*
3. **Said A.H. Vuai**. Influence of acidic red soil and acid sulfate soil on the quality of freshwater located in the silicate rock area, northern Okinawa Island. *Ph.D. Thesis, University of the Ryukyus, Okinawa, Japan, September 2004.*
4. Mohamed Mkadam Kombo, **Said Ali Vuai** and Akira Tokuyama (2003). Effect of ionic strength on aluminum and dissolved silica under red soil seawater interaction. *Geochimica et Cosmochimica Acta, Vol. 67, No 18 (SI), pp. A 230.*
5. **Said Ali Vuai**, Kazuyo, Arakaki and Akira Tokuyama (2003). Dissolved Al, Fe, Mn, Cu, and Zn in surface and ground waters from the northern area of Okinawa Island, *Geochimica et Cosmochimica Acta, Vol. 67, No 18 (S1) pp. A516.*
6. **Said A.H. Vuai**. Effect of red soil on chemical composition of natural waters. *Master's thesis, University of the Ryukyus, Okinawa Japan, September 2001.*
7. Design, construction and evaluation of non-converting, salt gradient solar pond for storage of thermal energy. *Graduation thesis, University of Dar es Salaam, Dar es Salaam, Tanzania, June 1997. (BOOK)*

## 6. SCIENTIFIC CONFERENCES AND INVITED LECTURES

1. **Vuai, S. A. H.** Spatial Variation of nutrient pollution in the Lake Victoria Basin, Stakeholders Workshop for Vicres *Project December 7<sup>th</sup> 2011, Hotel Barbados, Kampala.*
2. **Vuai, S. A. H.** Spatial and Temporal variation of nutrient along Simiyu-Duma and Sondu Miriu River, Land Use and Natural Resources *Cluster workshop, 30<sup>th</sup> October to 2<sup>nd</sup> November, 2011, Nairobi, Kenya.*
3. **Vuai, S. A. H.** Mungai, N.W. and Ibembe, J. D. Socio-economic and ecological impacts of periodic sedimentation on the livelihoods of flood plain communities of Lake Victoria. Lake Victoria Research (VicRes) *Initiative Biennial Forum from 9<sup>th</sup> to 13<sup>th</sup> October 2011, Monyonyo, Kampala, Uganda.*
4. **Vuai S. A.**, Ali H. R. and Bakari, S.S Geochemical Characteristics of Sepaleotherms and Water in Cave from Zanzibar Island, Tanzania Int. Conf. on Geosciences for Global Development (GeoDev). *Dhaka, Bangladesh, October 26-31, 2009. Abstract Volume, 84 pp.*
5. Bakari, S.S., Aagaard, P., Vogt, R.D Ruden, F. and **Vuai, S. A.** Geochemical Characterization of the Upper and Lower Aquifer System in the Coastal Area, Tanzania Int. Conf. On Geosciences for Global Development (Geo Dev), *Dhaka, Bangladesh, October 26-31, 2009. Abstract Volume, 63 pp.*
6. **Said A. H. Vuai**, Mohamed A. Sheikh, and T. Oomori. Occurrence of tributyltin (TBT) compounds in the major ports of Tanzania. International conference on pesticide use in developing countries: environmental fate, effects, and public health implications, *Arusha, 16-2-October 2006.*
7. Kombo M., Tetsuya Y., **Vuai S.** and Tokuyama A. Effect of ionic strength on dissolved silica in the interaction of acidic red soils from Okinawa Island and seawater solutions., 51<sup>st</sup> annual meeting of Geochemical Society of Japan, Shizuoka *University, September 20-2-, 2004.*
8. Said Suleiman Bakari, **Said Ali Vuai** and Akira Tokuyama. Influence of underlain rock on the dissolved organic nutrients and metal release in the forest soil in Okinawa island Japan. 51<sup>st</sup> annual meeting of Geochrmica 1 Society of Japan, Shizuoko *University, September 20-22, 2004.*
9. **Said Ali Vuai**, Kazuyo Arakaki, and Akira Tokuyama, Dissolved Al, Fe, Mn Cu and Zn in surface and ground waters from the northern area of Okinawa Island. *13<sup>th</sup> V.M. Golschmidt International conference, Kurashiki, Japan September 7-12, 2003.*
10. Mohamed Mkadam Kombo, **Said Ali Vuai**, Maki Ishiki and Akira Tokuyama. Influence of salinity on pH and aluminum upon the interaction of acidic red soil seawater solution. 4<sup>th</sup> international workshop on oceanography and fishery in the East China Sea. *University of thr Ryukyus, Okinawa Japan. November 8-9, 2003.*
11. Mohamed Mkadam Kombo, **Said Ali Vuai** and Akira Tokuyama. Effect of ionic strength on aluminum and dissolve silica under red soil seawater interaction. *13<sup>th</sup> V.M. Goldschmidt International Conference, Kurashiki, Japan, September 7-12, 2003.*

12. **Said Ali Vuai** and Akira Tokuyama. Characteristics of runoff from acid sulfate soils in the northern area of Okinawa Island. *49<sup>th</sup> annual meeting of Geochemical Society of Japan, Kagoshima University, September 25-27, 2002.*
13. Mohamed Mkadam Kombo, **Said Ali Vuai** and Akira Tokuyama. Effect of acidic red soil on pH and chemical composition of seawater. *49<sup>th</sup> Annual Meeting of Geochemical Society of Japan, Kagoshima University, September 25-27, 2002.*
14. Akira Tokuyama, Mariko Yonashiro and **Said Ali Vuai**. *47<sup>th</sup> Annual Meeting of Geochemical Society of Japan, Yamagata University, Yamagata, Japan, September 25-2, 2002.*

## 7. RESEARCH GRANTS/PROFILE/PROJECTS

	<b>Funding Agency</b>	<b>Theme</b>	<b>Date</b>
a.	German Federal Ministry of Education and Research	Design and Evaluation of Adolescent Health Interventions and Policies in Sub-Saharan Africa (DASH)	2023-2027
b.	TWAS	Preparation of Cheap and affordable solution-based organic solar cells: Mitigation to Climate Change.	2022-2023
c.	TWAS	Study of Mechanism of Salt Removal Efficiency and Minimization of Energy Consumption of the Adsorption-capacitive Deionization Hybrid System based on Porous Carbon Derived from Biomass Waste	2021-2023
d.	Erasmus+	Development of new academic curricula on sustainable energy and green economy in Africa.	2020-2023
e.	UDOM	Design and Development of Drugs from Tanzanian Traditional Plants	2020-2022
f.	UNICEF	School-based Adoption of micronutrient Interventions in Adolescents.	2020-2021
g.	UNICEF	Meals, Education, and Gardens for In-School Adolescents Project in Dodoma, Tanzania.	2020-2022
h.	Boston Child Hospital	Maternal and Child Health Formative Research.	2016
i.	AAPH	Exploration of factors that affect dietary diversity and Malnutrition in Dodoma, Tanzania.	2016
j.	AAPH	Establishment of Dodoma Health Demographic System.	2016
k.	COSTECH	The potential of native Gracilaria seaweed and alternative cheap source of agar for tissue culture of vegetative propagated crops in Tanzania.	2011-2015
l.	CODESRIA	Impact of Tourism of Child and Youth in Zanzibar.	2011-2015
m.	VICRES	Socio-economic and ecological impact of periodic Sedimentation in the livelihood of Flood plain Communities in the Lake Victoria Basin	2006-2011

## 8. TEACHING AND SUPERVISION

### a) Supervision

Name and Research Title	Level	Status	Institute/ University/College
1. Cephas J. Lyoba (2018) Environmental sustainability of power generation by sisal wastes using LCA method.	Ph.D. Dissertation	In progress	The University of Dodoma, Tanzania
2. Asha Shabani (2018) Identification of novel psychoactive substances in urine specimen from drug abuse patients.	MSc. Dissertation	Graduated	The University of Dodoma, Tanzania
3. Juma Mzume (2018) Computational study of fluorescein derivatives as dye for dye-sensitized solar cells (DSSCs).	MSc. Dissertation	Graduated	The University of Dodoma, Tanzania
4. Ismail Abubakari (2018) Alizarin based dyes for dye sensitized solar cells application.	Ph.D. Dissertation	Graduated	The University of Dodoma, Tanzania
5. David Mihayo (2018) Development of efficient adsorbents from adansonia digitata fruit pericarp for water purification.	Ph.D. Dissertation	Graduated	The University of Dodoma, Tanzania
6. Farid (2017) Optimazation of Agar extraction from Local seaweed species (gracilaria salicornia) in Tanzania for Tissue culture of Pleurotus HK-37.	MSc. Dissertation.	Graduated	The University of Dodoma, Tanzania
7. Juma, Mohammed (2011) Socio-economic and ecological importance of Bwawani Pond, Zanzibar. - MSc. Dissertation, the University of Dodoma.	MSc. Dissertation.	Graduated	The University of Dodoma, Tanzania
8. Getachew R. Assessing domestic rainwater harvesting: Reliability, quality and point-of-use treatment system in the semi-arid city of Makelle, Ethiopia.	Ph.D. Dissertation	Graduated	Hawassa University, Ethiopia.
9. Morris F. Hiji. A study on the process of production of sulfuric acid from Samena pyrites.	Ph.D. Dissertation	Graduated	The University of Dodoma, Tanzania
10. Hamad, B. A. (2010) Nutrients dynamic in Jozani Forest Reserve, Zanzibar.	MSc. Dissertation.	Graduated	The University of Dodoma, Tanzania
11. Ali, H. R. (2009) Determination of Chemical Composition of Cave water: A case study of Zanzibar Island, Tanzania	MSc. Dissertation.	Graduated	Makerere University, Uganda

## 9. REFERENCE

1. Dr. Mtabazi Sahini,  
Head, Chemistry Department,  
College of Natural and Mathematical Sciences,  
The University of Dodoma  
P. O. Box 259,  
**Dodoma**, Tanzania  
Email: [mgesahini@gmail.com](mailto:mgesahini@gmail.com)  
Mobile; +255 735 930 590
2. Prof. Haji Mwevura  
Deputy Vice Chancellor Academic, Research and Consultancy  
Abulrahman Sumeit Universiy  
R627+35J Mbweni Road  
**Zanzibar**, Tanzania  
Email: [mwevuara@hotmail.com](mailto:mwevuara@hotmail.com)  
Mobile; +255 777844350
3. Prof. Hamad Hassan Issa  
The State Univiversity of Zanzinbar  
P. O. Box 259,  
**Dodoma**, Tanzania  
Email: [vc@udom.ac.tz](mailto:vc@udom.ac.tz)  
Mobile; +255 773960979

**Signature**



**Date:** August, 2024