

**PERSONAL INFORMATION**

**Name** : Dr. Najya Muhammed  
**Place of Birth** : Mombasa  
**Date of Birth** : 30<sup>th</sup> March 1979  
**Nationality** : Kenyan  
**Marital Status** : Married  
**Sex** : Female  
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**Pwani Add:** P. O Box 195 – 80108 Kilifi, Kenya  
**Personal Add:** P.O Box 83462-80100 Mombasa, Kenya

**CAREER HISTORY**

**Jan 2015 – Present:** Co-ordinator Mombasa Campus, Pwani University

**July 2013 – Present:** Senior Lecturer: Physical Chemistry, Pwani University Kilifi, Kenya.

**Taught Courses include:**

**Undergraduate:** Introduction to Photochemistry, Statistical Thermodynamics, Thermal Physics, Chemical Kinetics, Phase Equilibria, Electrochemistry, Surface and Colloidal Chemistry.

**Masters:** Advanced Chemical Thermodynamics, Advanced Chemical kinetics and Laboratory and Assessment Management

**Jan 2010 – July 2013:** Lecturer; Physical Chemistry, Pwani University Kilifi, Kenya.

**Jan 2010 – Present:** Consultant/Facilitator/motivational Speaker

A Lead facilitator in various programs with institution with which Pwani University has partnerships or MOU in such diverse areas as water quality, value chain analysis, education etc

**Jan 2010 – Present:** A motivational speaker in various institutions on the issue of the improvement of the Coastal Education and working with UWEZO to uplift the performance of the schools in the coast region.

**Oct 2005 – Oct 2009:** Physical Chemistry Lab supervisor at Loughborough University, Chemistry Department (Part – time)

**Feb 2006 – Oct 2009:** Sub – Warden for The Holt Hall, Loughborough University; in-charge of supervision of the halls of residence which accommodated around 250 students (Part – time)

**EDUCATION ACHIEVEMENTS**

**2005 - 2009:** **Doctor of Philosophy (Ph.D) Photo-Chemistry:** Loughborough University, U. K.  
**Thesis Title:** Singlet Oxygen Photophysics in Supercritical Fluids

**2002-2005** BSc (Honors) Medicinal and Pharmaceutical Chemistry  
Loughborough University, UK

**RESEARCH AND COLLABORATION GRANTS**

1. Chairperson on the NEMA/PU, **\$70,000** project entitled Botanical Gardens: Pwani University at Pwani University
2. Principle investigator (PI) on the NCST **\$30,000** project entitled, Enhancing Coconut Development Through Micropropagation at Pwani University College
3. Team Member on an NCST **\$37,000** project entitled Use of Fish Aggregating Devices (FADs) To Increase Fish Catches Of Artisanal Fishermen Along The Kenyan Coast with Kenya Marine and Fisheries Research Institute (KMFRI)
4. Team Member on an NCST **\$25,000** project Entitled Impact Analysis of The Drinking Water Distribution System Dynamics On Health And Sanitation with Mombasa Polytechnic University College
5. Team Member on an NCST **\$12,000** project entitled Enhancing The *Mkilua* Utilisation Through Value Addition To Indigenous Knowledge with Pwani University College
6. Team Member on an NCST **\$12,000** project entitled Molecular Analysis Of Genetic Relationships Among Coconut Accessions In The Coastal Lowlands Of Kenya Using Dna Markers with KARI Mtwapa
7. Team Member on PURB **\$3,000** funded project entitled Contribution of Anthropogenic Pollutants on Fertility of The Coastal Marine Waters of Mtwapa Creek, Coast Province, Kenya at Pwani University
8. Team Member on Seeding Labs for equipment grant worth **\$350,000** (Grant No. SL2012-5).

**PUBLICATIONS**

1. **Muhammed N.**, Hashim S., Shauri H., Malinga J., Kashindi G., Dissemination of market access and technology information among coconut farmers: a case study of Kilifi County in Kenya; **Published** in the International Journal of Agricultural Sciences Vol. 2 (5), pp.153-156, **May, 2012**
2. **Najya Muhammed**, Richard Nyamota, Suhaila Hashim and Joyce N. Malinga. Zygotic embryo *in vitro* culture of *Cocos nucifera* L. (sv. East African Tall variety) in the coastal lowlands of Kenya. **Published** in African Journal of Biotechnology Vol. 12 (22), pp 3435 – 3440, **May 2013**
3. **Najya Muhammed**, Mohamed Pakia and Moses Wainaina. Conservation and Cultural Aspect of *Mkilua Fragrans* Verdc: A Case Study of the Kenyan Coastal Lowlands. International Journal of Scientific and Technology Research. Vol. 3 (5), pp 194 – 198, **May (2014)**

4. Pole F N, E. Masha, F.K. Muniu, B. Nguma and **N. Muhammed**. Status of coconut farming and the associated challenges in Kenya. CORD 2014. ISSN - 0215-1162. Vol 30, No 2, (2014)
5. Oyoo. M.E, **Muhammed N**, Okwiri P.O, Muniu F.K, Masha E, Finyange P, Ticha N and Githiri S. M. *In-situ* morphological characterization of coconut in the Coastal Lowlands of Kenya . African Journal of plant science Vol.9(2), 65-74 , (2015)
6. Mwamuye Tunje Pole, Maarifa Ali Mwakumanya, **Najya Muhammed**. The Effects of Anthropogenic Pollutants on Primary Productivity in Mtwapa Creek Waters in Kilifi, Kenya. Open Journal of Marine Science, (2016), Vol.6, 32-39
7. Fatuma Mzingirwa, **Muhammed Najya**, Mueni Elizabeth, Charles Muthama, Peter Musembi Preliminary Assessment of Fish Aggregating Devices (FADs) in the North and South Coast of Kenya. Open Journal of Marine Science, (2016) Vol.6, 323-333
8. Oyoo Maurice, **Najya Muhammed**, Kimani N. Cyrus and Simon M. Githiri. Assessment of the Genetic Diversity of Kenyan Coconut Germplasm using Simple Sequence Repeat (SSR) markers. African Journal of plant science (2016) Vol.15 (40), 2215-2223.

#### MANUSCRIPTS IN PRESS

1. N.Muhammed and D.Worrall. **Photo-oxidation synthesis of juglone in Super Critical Carbon Dioxide**
2. Muhammed N., Mwajuma J. J., Budambula A. V., Mang'eni G., Nguru J. F. **Chemical Analysis of the Mzima – Baricho Distribution Lines for Drinking Water.**
3. Helen.M.kiti, Josiah O. Odalo, Moses Wainaina and Najya Muhammed. **Headspace Trapping and GC-MS Analysis of Scented Floral *Mkilua Fragrans Verdc***
4. Nuru Hamid and Najya Muhammed, **Assessing The Effects Of Human Settlements On The Fresh Water Sources In Lamu Island**

#### PUBLISHED POLICIES

1. Education for sustainable Development Policy for Pwani Regional Centre of Expertise (RCE)
2. Examination Policy for Pwani University

#### SUPERVISION

1. **Main Supervisor** - Helen M. Kiti; I56/PUC/2053/011 (Msc. Chemistry)
2. **Main Supervisor** - NGUMA, D.B; N50/PUC/2058/011(Msc Environmental)
3. **Co-supervisor**- KHAMALI B. JAIRUS; E55/PUC/2077/011 (Msc. Education)
4. **Co-supervisor** - JARED O. OGEISIA - I56/PU/2030/13 (M.Sc Chemistry)
5. **Co-supervisor** – JUSTUS MASHA– N50/PU/2084/013 (M. Sc Environmental)

**6. Co-supervisor – NURU HAMID– N50/PU/2198/013 (M. Sc Environmental)****CONFERENCE PRESENTATIONS**

- 1. Muhammed N**, Muinde Tuva, Kashindi G, and Chengo S, The role of Botanical Garden in the society. Oral Proceedings for The Green Enterprise Challenge-Kilifi on **July 22<sup>nd</sup> 2016** held at Pwani University.
- 2. Muhammed N**, Hashim S and Nyamota Richard. Challenges Facing the Coconut Embryo Culture Biotechnology in Kenya. Oral Proceedings for the 1<sup>st</sup> KCDP CONFERENCE **21<sup>st</sup> - 23<sup>rd</sup> March 2016**, at VOI WILDLIFE LODGE, Kenya.
- 3. Muhammed N**, and Michael Oelgemöller; Synthesis of Fine-Chemicals through Solarchemical Photooxygenations in Kenya. Poster proceedings for the International Summer School for Young Scientists from East & Southern Africa “Renewable Energies for Africa: Solar Energy and its Applications” at Nelson Mandela African Institution of Science and Technology (NM-AIST), Arusha, Tanzania, **July 13-18, 2015**
- 4. Muhammed N<sup>\*a.</sup>**, Mwajuma J. J<sup>b.</sup>, Budambula A. V<sup>b.</sup>, Mang’eni G<sup>b.</sup>, Nguru J. F<sup>c.</sup> **Chemical Analysis of Drinking Water from Mzima – Baricho Water Distribution Lines for in Kenya. Poster** Proceedings for the Symposium on Environment and Health in Pretoria, South Africa, 1<sup>st</sup> to 3<sup>rd</sup> **June 2015**
- Mwakumanya M, Pole T, **Muhammed N.**, “**Assessment of the Levels of anthropogenic pollutants on the coastal waters of Mtwapa creek, Kenya**”. Oral Proceedings for the 8<sup>th</sup> WIOMSA International Conference in Moputo, Mozambique **October 2013**
- Mzingirwa, F; Mueni E; **Muhammed N** and Machaku R.**Potential for sustainable use of fish aggregating devices (FADs) in the Kenyan coast – socio economics assessment on pre deployment of FADs. Poster** Proceedings for the 8<sup>th</sup> WIOMSA International Conference in Moputo, Mozambique **October 2013**
- Muhammed N**, Nyamota R, Hashim S and Malinga J. **Zygotic embryo *in vitro* culture of *Cocos nucifera* L. (sv. East African Tall variety) in the coastal lowlands of Kenya. Oral** Proceedings for the 8<sup>th</sup> International Coconut Conference in Mombasa, Kenya **September 2013**
- Muhammed N.**, Mohamed Pakia., Moses Wainaina. **Conservation and Cultural Aspect of *Mkilua Fragrans* Verdc. Products for Women Empowerment. Poster** Proceedings for the Mombasa Kenya ASK Show **August 2013**

9. **Muhammed N.**, Hashim S., Shauri H., Malinga J., Elizabeth Koech. *Ex-Vitro* Establishment of Coconut Plantlets In Different Media For Food Security And National Growth. **Poster** Proceedings for the Mombasa Kenya ASK Show **August 2013**
10. **Muhammed N. and Worrall D.R** “**The Synthesis of Juglone as a Fine Chemical in Super Critical Carbon Dioxide**” oral Proceedings for the ANSOLE Mini-Symposium held at the University of Nairobi Kenya. **May 2013**.
11. **Muhammed N**, Mwajuma J. J, Budambula A. V, Mang’eni G, Nguru J. F. “**Chemical Analysis of the Mzima – Baricho Distribution Lines for Drinking Water**” Oral Proceedings for the Humboldt Kolleg Conference held at the Red Court Hotel, Nairobi, **April 2013**.
12. **Muhammed N**, Oyoo. M.E, Okwiri P.O, Muniu F.K and Githiri S. M., *In-situ* **Morphological Characterization of Coconut in the Coastal Lowlands of Kenya** Oral Proceedings for the **Humboldt Kolleg Conference**, held at the Red Court Hotel, Nairobi, **April 2013**.
13. Tunje Pole, Maarifa Mwakumanya, **Najya Muhammed.**, “**Levels of anthropogenic pollutants on the coastal waters of Mtwapa creek, Kenya**”. Oral Proceedings for the **Humboldt Kolleg/Conference**, held at the Red Court Hotel, Nairobi, **April 2013**.
14. **Muhammed N.**, Hashim S., “**Quality Coconut Production through Technology**”. Oral Proceedings for the IBRO School Conference held at Pwani University Kenya, **Dec 2012**
15. **Muhammed N.**, Hashim S., “Green Chemistry: biocatalysts from metagenomes for application in pharmaceutical and fine chemical industries” **Oral** Proceedings for the Humboldt College Conference held at Taita Taveta Kenya, **July 2012**
16. **Muhammed N.**, Hashim S., Shauri H., Malinga J., Richard Nyamota. Enhancing Coconut Development through Micropropagation for food security and National Growth. **Poster** Proceedings for the Mombasa Kenya ASK Show **August 2012**
17. **Muhammed N.**, Mohamed Pakia., Moses Wainaina. Enhancing The *Mkilua* Utilisation Through Value Addition To Indigenous Knowledge. **Poster** Proceedings for the Humboldt College Conference held at Taita Taveta Kenya, **July 2012**
18. **Muhammed N.**, Hashim S., Shauri H., Malinga J., Kashindi G. “The Efficiencies of Small Scale Coconut Processing Units In Kilifi, Kenya”. **Oral** Proceedings for the Eleventh

Workshop on Sustainable Horticultural Production in the Tropics Factors Influencing at Pwani University College. **December 2011**

19. **Muhammed N**, Worrall. D. R., “The Use of a Greener Solvent (Super Critical Carbon Dioxide Fluid) In the Synthesis Of Juglone”. **Oral** Proceedings for the 1<sup>st</sup> National Regional Centre of Expertise Conference, at KICC, Nairobi Kenya. **November 2011**
20. **Muhammed N.**, “Education is central to national cohesion”. **Oral** Proceedings for the 1<sup>st</sup> National Cohesion and Integration Commission (NCIC) at Mombasa Polytechnic Resource Centre, Mombasa. **October 2011**
21. **Muhammed. N**, Hashim S., Shauri H., Malinga J. Kashindi G., “Effectiveness of the value chain of Coconut in Kilifi, Kenya”. **Oral** Proceedings for the KCDA Stakeholders Workshop at Mombasa. Kenya Beach Hotel **June 2011**
22. **Muhammed N.**, Hashim S., Shauri H., Malinga J. Enhancing Coconut Development Through Micropropagation. **Poster** Proceedings for the Mombasa Kenya ASK Show **August 2011**
23. **Muhammed N** and David R. Worrall; *Dye Sensitised Photooxidation Of 1,5-Dihydroxynaphthalene To Juglone In Supercritical Fluid Carbon Dioxide*. Poster Proceedings for the Pwani University College Open Day **December 2010**
24. **Muhammed N.**, Worrall D. R. “**Dye Sensitised Photooxidation of 1,5-dihydroxynaphthalene to Juglone in Supercritical fluid Carbon Dioxide**” Poster proceedings of the *XXII - IUPAC Symposium on Photochemistr, Gothenburg, Sweden 2008*.
25. **Muhammed N.**, Worrall D.R. “**Singlet Oxygen Yield of Anthracene in Supercritical Carbon Dioxide.**”Poster *Proceedings of the ICP - XXIII International conference on Photochemistry". Cologne, Germany. 2007*

#### WORKSHOPS AND CONFERENCES ATTENDED

1. *XXIII International conference on Photochemistry* August **2007**, held in Cologne, Germany.
2. *XXII - IUPAC Symposium on Photochemistry*, August **2008** held in Gothenburg, Sweden.
3. Pedagogical skills workshop, module I, held at Pwani University College between 16<sup>th</sup> and 17<sup>th</sup> **April, 2010**.
4. International Standards of Organisation (ISO) training workshop, Pwani University College on 3<sup>rd</sup> - 7<sup>th</sup> **May 2010**

5. Pedagogical skills workshop, module II, held at Pwani University College between 6<sup>th</sup> and 7<sup>th</sup> **August, 2010.**
6. Digital Resource training workshop, held at Pwani University College on 19<sup>th</sup> **October, 2010**
7. Policy Preparatory Training Workshop, held at Mombasa Beach Hotel on 12 - 15<sup>th</sup> **April 2011**
8. Monitoring & Evaluation of ST&I Grants funded project workshop held on 18-20<sup>th</sup> **May, 2011** at KCB Leadership centre Karen, Nairobi, Kenya.
9. International conference at Pwani University College on 'Impact of Social Change: UN convention on the Rights of Persons with Disabilities (UNCRPD) as a Trigger' on 16-17<sup>th</sup> **June 2011**
10. Capacity building workshop organised the Max Planck Institute at Pwani University on 21<sup>st</sup> – 24<sup>th</sup> **June 2011**
11. Proposal workshop Sponsored by DAAD and NCST at Pwani University on **August 2012**
12. XLV APCC COCOTECH Conference and Coconut Festival on **2<sup>nd</sup> - 6<sup>th</sup> July, 2012** held in Kochi, India
13. The International Coconut Genetic Resources Network (COGENT) held in India on 8<sup>th</sup> - 10<sup>th</sup> **July 2012**
14. HIV/Aids seminar held at the North Coast Hotel on **27<sup>th</sup> - 28<sup>th</sup> March 2013, Kilifi, Kenya**
15. Humboldt Kolleg Conference held **on 8<sup>th</sup> – 12<sup>th</sup> April 2013.** at the Red Court Hotel, Nairobi, Kenya
16. ICSU Regional Implementation Workshop on Sustainable Energy in sub-Saharan Africa; held at Boma Hotel, Nairobi, Kenya, on **7<sup>th</sup> – 8<sup>th</sup> May 2013**
17. Workshop on Preparation of Course Outlines held at Pwani University on **14-16<sup>th</sup> May 2013**
18. ANSOLE Mini Symposium held at at Chiromo Campus on **9<sup>th</sup> May 2013**, University of Nairobi, Kenya.
19. 3<sup>rd</sup> Kenyan International Coconut Conference held at White Sands Resort on 17<sup>th</sup> – 20<sup>th</sup> **September 2013**, Mombasa, Kenya.
20. 1st African Young Academies Conference held at Gracias Garden on 3<sup>rd</sup> – **5<sup>th</sup> February 2014**, Nairobi, Kenya.
21. 3<sup>rd</sup> Kenyan International Coconut Conference debriefing meeting on 17<sup>th</sup> – 20<sup>th</sup> **March 2014**, held at Hill Park, Tiwi Beach Hotel, Kenya.

22. XLVI APCC COCOTECH Conference and Coconut Festival 2014 on 7 - 11 **July 2014** in Colombo, Sri Lanka.
23. National Network for RCE's workshop held on 27<sup>th</sup> - 28<sup>th</sup> **November 2014**, at Multi Media University, Nairobi, Kenya.
24. Tapping Indigenous Knowledge for Sustainable Economic Development Workshop held on 26<sup>th</sup> **June 2015** at Laico Regency Hotel, Nairobi, Kenya.
25. Proposal Writing Workshop held on 25<sup>th</sup> – 29<sup>th</sup> **January, 2016** at Pwani University resource centre, Kilifi, Kenya.
26. Nuts and Oil crops research stakeholders' workshop held on 16<sup>th</sup> – 18<sup>th</sup> **February 2016** at KALRO Kandara, Thika, Kenya.
27. Management Training sponsored by NUFFIC NICHE/KEN 212 project held on 11th - 13th **July 2016** at Temple point Hotel Malindi, Kenya.
28. XLVII APCC COCOTECH Conference and Coconut Festival held on 26 - 30 **September 2016** in Bali, Indonesia.
29. Habitat III Conference held on 17 to 20 **October 2016** at the Casa de la Cultura Ecuatoriana "Benjamín Carrión" in Quito, Ecuador

## MEMBERSHIPS

- A Founder member of The Kenya National Young Academy of Sciences (KNYAS)
- The international coconut genetic resource network (COGENT)
- Team Member of the Regional Centre of Expertise (RCE) for the Coastal Region
- Organising member of the 3<sup>rd</sup> International coconut conference of Kenya 2013
- Chairperson, Botanical Garden Committee
- Nuts and Oil Crop Technical Committee member
- Pwani University Committee member to the following;
  - i. Procurement
  - ii. Exams Regulation
  - iii. Master Plan
  - iv. Mentorship Programme
  - v. Peace Unit Programme
  - vi. Internal scholarship and Bursary
  - vii. ISO certified departmental coordinator
  - viii. Mombasa International ASK show university member
  - ix. Welfare of School of Pure and applied Science (SPAS)
  - x. Chemistry and Biochemistry Post graduate coordinator



**COMMUNITY SERVICE**

- Committee Member of the Program Development for the **Coast International University**
- Board of Governor (B.O.G) Member for the following secondary schools:
  - Bright Girls Shela Secondary School,
  - Matuga Girls Secondary School
  - Shariff Nassir Secondary School
  - Sheikh Khalifa Al-Nahyan Secondary School
- Invited to give **Motivational talks** to approximately 30 schools from Faza on the north coast of Kenya to Vanga on the southern most part of coastal Kenya

**ORGANISED EVENTS**

- Key organiser, moderators and participants in the 3<sup>rd</sup> international coconut conference held in Whitesands on 17-20<sup>th</sup> September 2013
- Team Leader in organising a dissemination workshop on coconut biotechnology on 24<sup>th</sup> May 2014
- Team Leader in organising a tree planting event at Pwani University Botanical Garden on 4<sup>th</sup> June 2014 and invited 150 students from Kilifi

**PERSONAL REFERENCE**

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