

CURRICULUM VITAE

1. PERSONAL DETAILS

NAME: DR. PETER NYONGESA KHAKINA
NATIONALITY: KENYAN
DATE OF BIRTH: 17TH MARCH, 1973
PASSPORT No.: BK652104
LANGUAGES: ENGLISH, SWAHILI, CHINESE, BUKUSU, TACHONI
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2. ACADEMIC AND PROFESSIONAL QUALIFICATION

NAME OF INSTITUTION	PERIOD	CERTIFICATE OBTAINED
ALISON	2019	CERTIFICATE IN SOLAR ENERGY: SOLAR TECHNOLOGY AND ITS USE WORLDWIDE.
HARBIN INSTITUTE OF TECHNOLOGY, CHINA	2008 - 2012	PhD in STRUCTURAL ENGINEERING
MOI UNIVERSITY	2001 - 2005	MASTER OF PHILOSOPHY IN TECHNOLOGY EDUCATION DEGREE (CONSTRUCTION TECHNOLOGY OPTION)
MOI UNIVERSITY	1992 - 1996	BACHELOR OF EDUCATION (TECH): BUILDING CONSTRUCTION AND ENGINEERING MATHEMATICS)
KIBABII HIGH SCHOOL	1987 - 1990	KENYA CERTIFICATE OF SECONDARY EDUCATION
LUGULU B. P. SCHOOL	1982 - 1996	KENYA CERTIFICATE OF PRIMARY EDUCATION
MITUKUYU P. SCHOOL	1981	-
MAKHONGE P. SCHOOL	1978 - 1980	-

3. ADMINISTRATIVE AND PROFESSIONAL TRAINING

Item	Training	Training body	Venue of training	Date	Areas of Training
1.	Postgraduate supervision	Kibabii University	Kibabii University	28 th February, 2025	Qualitative and Quantitative Research
2.	Public Private Partnership (PPP)	ESAMI	Kampala, Uganda	28 th February – 10 th March, 2017	Negotiating for PPP PPA Act
3.	Balanced ScoreCard	ESAMI	Kampala, Uganda	2 nd – 13 th May, 2016	Governance and Service delivery in public service Strategic Planning
4.	African Corporate Governance	Advantage Training	Johannesburg, South Africa	17 th – 20 th March, 2015	Governance
5.	Values and Principles	Aegis Execelsior Consultants	Kakamega	9 th – 13 th February, 2015	Values and Principles of Articles 10 and 232 of the Kenyan Constitution.
6.	Corporate Governance	The Kenya Institute of Management	Kenya Institute of Management	24 th – 26 th September, 2014	Relationship of CPSB and County Government.
7.	Leadership	Kenya School of Adventure and Leadership	Pangoni Beach Resort, Mombasa	19 th - 21 st February, 2014	Team Building
8.	Leadership and Management	The International Centre for Research in Sustainable Development	Crowne Plaza, Nairobi	29 th – 31 st January, 2014	Leadership
9.	Internal Quality Auditor	Kenya Bureau of Standards	Kenya Industrial Research and Development Institute	26 th – 28 th June, 2013	Quality Management Systems: ISO 9001:2008
10.	Civic Education	Kenya National Integrated Civic Education Programme (K-NICE)	Kenya School of Government, Nairobi	3 rd – 4 th June, 2013	-Concept of devolution -National and County governments -Financial Management -Human resource management -Ethics and anti-corruption -Accountability
11.	Retirement	Retirement Board Authority (RBA)	Intercontinental hotel, Nairobi	31 st May, 2013	-Types of retirement benefits -Stress management -Financial management -Attitude change
12.	KS ISO 21542 on Building Construction Accessibility and Usability of the Built Environment	Kenya Bureau of Standards (KEBS) and National Council of People with Disabilities (NCPWD)	BOMA hotel at Kenya Red Cross Headquarters, Nairobi	23 rd – 24 th May, 2013	-Enforcement of People with Disability Act -ISO 21542
13.	Conducting referendum and Elections	ECK and IEBC	Bumula, MTC Webuye and Panpaper hall	2005, 2007 and 2013	-Presiding over elections -Party nominations
14.	School management	BOG, Sigalame High school	Kampala, Uganda	1999	-Motivating staff -Monitoring and evaluation

4. PROFESSIONAL AND WORK EXPERIENCE

Date	Position	Description and Responsibility of the position
September 2019 - date	Senior Lecturer at Kibabii University	<ul style="list-style-type: none"> - Teaching in the Science, Technology and Engineering Department: Quality Reliability Engineering; Safety, Health and Environmental Management; Solid Mechanics/Strength of Materials, Sustainable Architecture, Project management for Technologists, Distillery operations and Management, Technical/Engineering Drawing, Dynamics, Research Project and Research Methods. - Industrial Attachment Coordinator. - Supervised 3 Postgraduate students. - Published several papers with more than 32 publication points. - Examined several Theses. - Participated in several oral thesis defenses. - Chaired the Committee that Reviewed the University the Intellectual Property Policy. - Sat and participated in various committees of the university. - Guided students to win University innovation competitions and the Venture 4 Change competition that involved 4 universities. - Prepared 4 programmes for the university (MSc in Renewable Energy, BSc in Sustainable Building Technology, BSc in Technology and Education and Diploma in Sustainable Building Construction). - Currently working on the proposed Adam Medicine Centre at the University. - Currently conduction research on waste management.
2023	Part-time Lecturer at University of BURCO, Somaliland	<ul style="list-style-type: none"> - Taught Advanced Construction Technology to Masters Students.
May 2017 – September 2019	Consultant with SHAPTECH Consultancy Ltd Company	<ul style="list-style-type: none"> - Consultancy services in good governance, housing, industrial development and renewable energy. - Designed and supervised construction of several houses and buildings.

July 2013 – May 2017	Member – County Public Service Board of Bungoma	Employed, in-serviced and instilled values and principles to over 5,000 employees of the County Government of Bungoma.
October 2012 – July 2013	Principal Research Scientist at Kenya Industrial Research and Development Institute (KIRDI)	In charge of Industrial development and support of Small and Medium Enterprises (SMEs).
July 2007 – October 2012	<ul style="list-style-type: none"> - Senior Lecturer at Eldoret Polytechnic - Part-time lecturer 	<ul style="list-style-type: none"> - Teaching Design of Reinforced Concrete Structures, Structural Steel design, timber structural design, Quantity survey, Engineering materials, Construction Technology and Engineering mathematics. - Part-time lecturer at Technical University of Eldoret and Technical University of Kenya.
June 2006 – August 2007	<ul style="list-style-type: none"> - Trainer of trainers (TOT) - Part-time lecturer 	<ul style="list-style-type: none"> - Trainer of TIVET teachers at the Centre of Mathematics, Sciences and Technical Education at Karen Nairobi. - Part-time lecturer at Jomo Kenyatta University of Advanced Technology
August 2003 – May 2006	Lecturer at Sang’alo Institute of Science and Technology	<ul style="list-style-type: none"> - Teaching Design of Reinforced Concrete Structures, Structural Steel design, Engineering materials, surveying, Quantity Survey, Construction Technology and Engineering mathematics. - Head of Mathematics Department.
September 1996 – August 2001	Graduate teacher at Sigalame High School	<ul style="list-style-type: none"> - Teaching mathematics and Building Construction - Assistant Director of Studies - Judge Science Congress - School choirmaster - Supervisor of construction works
November 2019 - date	Member, Board of Governors at Webuye West Technical and Vocational College	<ul style="list-style-type: none"> - Managing the college on behalf of the Ministry of Education, Kenya.
July 2023 – June 2024	Charter President, Rotary Club of Bungoma Central.	Managed the Rotary Club of Bungoma Central as the Charter President.
January 2016 – March 2022	Chairman, Board of Management (B.O.M), Mitukuyu Secondary School	Management of Mitukuyu Secondary School
2005 – date	Pastor with Grace Community Fellowship:	Senior pastor and chair of Church Pastoral Council

5. MEMBERSHIP

- i. Member of Kenya Engineering Technologist Registration Board and Institute of Engineering Technologists.
- ii. Member of the Rotary Club of Bungoma Central

6. PUBLICATIONS

1. Khakina P. N. (2025). Factors Contributing to Mismatch between Professional Training and Actual Work Done among College and University Graduates in Kenya. *Iconic Research and Engineering Journals*, Volume 8 Issue 9, ISSN: 2456-8880.
2. Khakina P. N. (2025). Energy Efficiency through Zero Energy House Construction Using Solar Technology in Bungoma County, Kenya. *Iconic Research and Engineering Journals*, Volume 8 Issue 8, ISSN: 2456-8880.
3. Simiyu E. N., Kizito L. M., Precious J. W., Khakina P. N. (2025). Trends of Sugarcane Farming in Nzoia Sugar Company: A Historical Analysis of Growth and Decline. *Iconic Research and Engineering Journals*, Volume 8 Issue 11, ISSN: 2456-8880.
4. Khakina P. N. (2024). Solving Unemployment in Kenya by Integrating Education, Training and Market. *International Journal of Research and Innovation in Social Science (IJRISS)*. ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume VIII Issue III August 2024.
5. Munyekenye E. N., Khakina P.N and Maiyo J. (2024). Ways of Improving the Quality of Education in Primary Schools. *Iconic Research and Engineering Journals*, Volume 7 Issue 9, ISSN: 2456-8880.
6. Natang'ah E. C, Waswa M. N., Khakina P.N. and Kibe H. E. (2024). A Comparative Study of Natural Radioactivity and Associated Radiological Hazards of Imported Sanitary Ware Products Sold in Kenya. *IRESPUB Journal of Natural & Applied Sciences*. Volume: 3 | Issue: 2 | JUL - AUG 2024. ISSN: 2770-3649
7. Khakina P.N. (2024). Solving unemployment by integrating education, training and the market. Kenya School of Government Baringo Campus, Symposium, June 13, 2024.
8. Wabomba J. S, Waswa M. N., Khakina P. and Wanyama C. K. (2022). Natural radioactivity levels in agricultural soils in transNzoia county, Kenya. *IRESPUB Journal of Environmental & Material Sciences*, Volume: 2 | Issue: 1 | JAN - FEB 2022, ISSN: 2770-4084.

9. Khakina P.N. (2024). Internal Passport System as a Strategy for Provision of Affordable Housing for all In Kenya. Kenya School of Government Baringo Campus, Symposium, June 23, 2022.
10. Khakina P.N. (2021). Alternative Medicine as a Preventive Measure against Diseases that have no cure: A Case Study of use of Herbal Medicine in Bungoma County. Kibabii University, 5th International Conference, 15th – 16th June, 2021.
11. Khakina P.N. (2021). Effects of Post-Harvest Losses to Food Security: A Case Study of Farming in Bungoma County. Kibabii University, 5th International Conference, 15th – 16th June, 2021.
12. Khakina P.N. (2021). Applying Zero Fossil Energy Development Principles in Construction of Houses to Solve Lockdown Challenges. Kibabii University, 5th International Conference, 15th – 16th June, 2021.
13. Khakina P.N. (2021). Construction Technology as a Solution to Affordable Housing for all in Kenya. Kibabii University, 5th International Conference, 15th – 16th June, 2021.
14. Khakina P.N. (2019). Appropriate Construction Technology as a Solution to Affordable Housing for all in Kenya. Kenya School of Government Baringo Campus, Symposium, November 28, 2019.
15. Khakina P. N. Buckling load of thin spherical shells based on the theorem of work and energy. IACSIT International Journal of Engineering and Technology, Vol. 5, No. 3, June 2013.
16. Khakina P. N. Promoting local extraction and production of plant oils. Second National Science, Technology and Innovation Week, 13 – 17th May, 2013.
17. Khakina P. N. Modern beekeeping: a case study of West Pokot honey processing pilot plant. Second National Science, Technology and Innovation Week, 13 – 17th May, 2013.
18. Khakina P. N., Ali M. I., Zhu E. C., Zhou H. Z. and Moula B. H. Effect of the rise/span ratio of a spherical cap shell on the buckling load. World Academy of Science, Engineering and Technology, 2011, Vol. 80, pp. 446-452.
19. Khakina P.N and Zhou H. A reduction factor for buckling load of spherical cap shells. Research Journal of Applied Sciences. Engineering and Technology, 2011, Vol. 3, pp. 1439-1442.
20. Zhu E. C., Khakina P. N. and Zhou H. Buckling Load of Thin Spherical Shells and Single-Layer Reticulated Spherical Shells. Information Engineering Letters, 2012, Vol. 2(3).

21. Ali M.I., Khakina P. N. and Fan F. Approximate Critical Load of Cambered Double-Layered Grids by Shell Analogies. Research Journal of Applied Sciences, Engineering and Technology, 2012, Vol. 4(15). Pp. 2291-2295.
22. Mohammed I. A, Fan F., Khakina P. N. and Ma H.H. Cost-effective design of space structures joints: A review. WASET 2013 International Conference, January 14-15, 2013, Zurich, Switzerland
23. Wrote a PhD Thesis entitled “*Prediction of buckling load of single-layer reticulated spherical shells considering their post-buckling behavior.*”
24. Conducted a survey research on enrolment in Technical Institutions, which made me write a Thesis entitled ‘*Determination of Factors that affect enrolment in Building Construction Craft Courses. A study of selected Technical Institutions in Western Kenya Region.*’

7. AMBITIONS

1. Research and Development.
2. Creating employment opportunities through projects.
3. Enhancing skills for efficient optimum production.
4. Collaborating with relevant partners so as to enhance both local and international investment.
5. Team work

8. HOBBIES

- a) Travelling
- b) Playing and watching football and athletics
- c) Singing and listening to traditional and Christian music
- d) Doing community work
- e) Tourism.

9. REFEREES

1. Prof. John Makokha. Director, TVET, Kibabii University. Phone: +254721825520. Email: makokhajw@kibu.ac.ke
2. Prof. Nixon Sifuna. Judge of the High Court, Nairobi. Phone: +254 723522005. Email: nsifuna@yahoo.com
3. Prof. John Simiyu. Department of Technology Education, University of Eldoret. Phone: +254 723721219. Email: jwsi54@yahoo.com

Sign: 

Date: 30th April, 2026