

**MR. ODHIAMBO ODAWA - CURRICULUM VITAE / PERSONAL RESUME & INDUSTRIAL – COMMERCIAL ENERGY EFFICIENCY & RENEWABLE ENERGY TECHNOLOGIES PROJECTS WORK EXPERIENCES**

NAME	ANTHONY ODHIAMBO ODAWA
AGE	58 YEARS
SPOKEN AND WRITTEN LANGUAGES	Japanese, German , English, Kishwahili
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PERSONAL PROFESSIONAL COMPETENCY SKILLS BASED PROFILE	Task – Oriented and Result-Oriented Consultant / Senior Principal Lecturer / Competency Skills Based Technical Trainer in Engineering / SMEs Entrepreneurship / Industrial – Commercial Energy Efficiency & Renewable Energy Technologies /Conservation /Energy Management /Energy Auditing / Solar Energy PV Systems Designs & Installations (Off – Grid / Hybrid / Mini- /Industrial Productivity Assessment /( as per ENERGY Act 2006 / ERC Act & Reg. 2012 / NITA Act 2006 / TVETA – CDAAC – KETRB Act 2013 & Job & Wealth Creators Bill 2016) Problem-Solving skills / Initiatives and belief in Team Work in a competitive and Fast – changing (dynamic) Work Environment
THE CLIMATE CHANGE MITIGATION / ADVOCACY & ENVIRONMENT COMPLIANCE <a href="#">Management / Conservations Projects through INDUSTRIAL - COMMERCIAL ENERGY EFFICIENCY &amp; RENEWABLE ENERGY TECHNOLOGIES ENGINEERING COUNSULTANCY TECHNICAL TRAINING /MARKETING / CAPACITY BUILDING / RESEARCH &amp; CAREER DEVELOPMENT OBJECTIVE / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES &amp; FIELD WORK AS PER THE ENERGY ACT 2006 &amp; TVETA - CDAAC ACT---2013 / KETRB - TVETA ( Job &amp; Wealth Creators Act 2016 ) - Refer Attachments / Testimonials) Work Experiences</a>	<ol style="list-style-type: none"> <li>To build upon the Vast knowledge / Talent / Attitudes / Engineering Technical Competency Skills Based Local and Overseas Industrial Experiences acquired in over thirty (30) years on Industrial Work experience overseas (Japan and Germany and in Kenya &amp; East / Central Africa for <b>ENERGY Efficiency &amp; Renewable Energy Technologies ( Bio –Gas , Bio – Mass , Bio –Fuel , Wind Energy , Geo –Thermal , Ocean Tidal Wave Energy Systems, Mini &amp; Major Hydro Energy Systems etc. ) / Energy Auditing / Practical “ Hands – On “ Technical Training of Trainers ( ToT ) Solar Energy PV Systems Designs / Construction &amp; Installations ( Off-Grids / Hybrids /Mini-Grids, Micro–Grids –Solar Home Systems (SHS) , Solar Water Heating Systems etc.) Tools, Machines &amp; Equipment Consultancy / Training / Marketing / Research Development Contracts Services, SMEs Importers &amp; Exporters , Distributors etc.</b></li> <li>To offer Optimum Energy Efficiency / Energy Conservation / Energy Auditing / Solar Energy PV Systems Designs &amp; Installations / Productivity Improvement / Technical Training / Consultancy / Training / Marketing Development Services to many <b><u>ENERGY EFFICIENCY &amp; RENEWABLE ENERGY TECHNOLOGIES FACILITIES</u></b> ( the 47 –County Based Governments Manufacturers / Factories / Hotels &amp; Lodges / Hospitals &amp; Dispensaries / Schools &amp; Colleges / SMEs Welding Fabrications Repair Workshops , ) and other MICRO / SMALL/ MEDIUM / LARGE ENTERPRISES in Engineering / Energy Efficiency / Productivity Assessment / Industrial SMEs Entrepreneurship / Micro-Finance (S.M.Es) competitively in the technologically fast - changing economy in Kenya</li> <li><b><u>THE FUTURE GREEN Renewable Energy &amp; BLUE ENERGY Economy Renewable Energy Technologies are : Solar Energy PV Hot Water Heating Systems (SWHS) / Solar " Electric-Hybrid - Powered " Road Transport Vehicles /Tri - Cycles &amp; Motor Cycles (Boda -Boda) / " SOLAR Hybrid -Powered " Aviation Aircraft Engines / Solar Energy PV Systems Designs &amp; Installations / Bio Gas Energy Systems / Geo - Thermal Energy Systems / Wind Energy / Bio-Fuels / Bio - Mass / / Mini Hydro etc)</u></b></li> </ol>
PROFESSIONAL, ACADEMIC, TRAINING DEVELOPMENT, NATIONAL CONTRACTS /JOBS RESPONSIBILITIES AND ACTIVITIES / FIELD WORK IN SITES AS PER THE-TVETA- ACT 2013 & ENERGY ACT	<p><b><u>FROM 1996 TO DATE (2019) : (THE S.M.A.R.T. Renewable Energy Tech Ltd) PRIVATE CONSULTANT &amp; KERIA - TVETA –AEPEA (AEE) – KETRB TECHNICAL TRAINER &amp; EXAMINER Industrial Energy Efficiency Facilities / Renewable Energy Technologies (Solar PV - Off – Grids / Hybrids / Mini – Grids ) / Workshop Technology / Industrial SMEs Entrepreneurships / Industrial Productivity Assessment ( Partners – E.R.C. / KAM / KERIA / TVETA - KETRB (Strathmore University &amp; Arizona Univ. - Energy Efficiency &amp; Solar PV Systems Designs ) / KEBS / JICA/ J.K.U.A.T. / GIZ / USAID / NTSA – Vehicle Insurance Valuation &amp; Inspection / General Motors / Toyota / Hino / )</u></b></p> <ol style="list-style-type: none"> <li>Senior Principal Lecturer in Mecha-Tronics Engineering/Workshop Technology / Energy Efficiency Auditing / Renewable Energy/ Vehicle Body Work / Auto - Electric / Industrial SMEs Entrepreneurship &amp; Projects / Solar Energy PV Systems Designs &amp; Installations (<b>Off-Grids / Hybrids / Mini-Grids</b>) / Industrial Productivity Assessments / Vehicle Technology &amp; Trade Projects /The Technical University</li> </ol>

<p><b>ENGINEERING COUNSULTANCY TECHNICAL TRAINING/ MARKETING / CAPACITY BUILDING / RESEARCH / CAREER DEVELOPMENT OBJECTIVE / ACTIVITIES / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES &amp; ACTIVITIES / FIELD WORK AS PER THE ENERGY ACT 2006 &amp; TVETA ACT---2013</b></p>	<p>of Kenya. and formerly Lecturer at The Jomo Kenyatta University of Agriculture &amp; Technology (JKUAT—Juja)</p> <ol style="list-style-type: none"> <li>I lecture/ teach the above subjects ( on Part – Time basis only) East African School of Aviation/ Jomo Kenyatta University of Agriculture and Technology (Juja). / Toyota East Africa/ General Motors/ Kenya Bureau of Standards (KEBS) /KENAS / KAM /NEMA /JICA / KAIZEN / D.T Dobie Training School.</li> <li>Consultancy in Energy Efficiency / Energy Auditing / Solar Energy PV Systems Designs &amp; Installations (Off-Grids / Hybrids / Mini-Grids) Management/ Marketing/ Entrepreneurship/ Micro - Finance (S.M.Es) / Capacity Building Training/ For manay <b>ENERGY FACILITIES</b> (Factories / Hotels / Lodges / SMEs ) SACCOS – Mwalimu/ Harambee / Afya/ Elimu / Mumias Sugar (Sukari SACCO) / South Nyanza Sugar Company SACCO (Awendo) Kenya Association of Manufacturers (K.A.M)/ KEBS / KENAS / NEMA / JICA / GIZ / NTSA - Road Transport Motor Vehicle Inspection Dept</li> </ol>
<p><b>WORK EXPERIENCE, PROFESIONAL ACADEMIC EDUCATION TRAINING DEVELOPMENT, NATIONAL CONTRACTS/ JOBS RESPOSIBILITES AND ACTIVITIES AS PER THE TVETA ACT—2013 &amp; ENERGY ACT 2006SS:</b></p> <p><b>THE CLIMATE CHANGE MITIGATION / ADVOCACY &amp; ENVIRONMENT COMPLIANCE <u>Management / Conservations Projects through</u> INDUSTRIAL - COMMERCIAL ENERGY EFFICIENCY &amp; RENEWABLE ENERGY TECHNOLOGIES ENGINEERING COUNSULTANCY TECHNICAL TRAINING / MARKETING / CAPACITY BUILDING / RESEARCH &amp; CAREER DEVELOPMENT OBJECTIVE / CONTRACTS MANAGEMENT/ JOB RESPONSIBILITIES &amp; FIELD WORK AS PER THE ENERGY ACT 2006 &amp; TVETA - CDAAC ACT---2013/ KETRB - TVETA ( Job &amp; Wealth Creators Act 2016) - Refer Attachments / Testimonials) Work Experiences</b></p>	<ol style="list-style-type: none"> <li>Engineering Technical Training Consultancy Services to Solar Energy PV Systems Design &amp; Installations / Energy Efficiency / Energy Auditing /Energy Conservations MICRO/ SMALL/MEDIUM/LARGE ( S.M.E) Enterprises in KENYA using TRAINING MANUALS from E.R.C. / KAM /KEBS / NEMA / ILO/ UNDP / J.I.C.A/ U.S.A.I.D/ S.I.D.A/ G.T.Z</li> <li>Engineering / Energy Efficiency / Energy Auditing / Solar Energy PV Systems Designs &amp; Installations Consultancy Service – Installations/ Inspections / Calibrations / Verifications / Testing / Measurements of ENERGY Facilities Equipments ( Solar Panels / Boilers / Furnaces / Motors / HV Equipments) of electrical/ Electronics &amp; Tele communication Service</li> <li>Mecha – tronic Installations/ Inspection / Calibrations / Testing / Verifications / Measurements / Ratings / Repair Services. KEBS /KAM / JICA / KAIZEN</li> <li>Human Resources Management Training/ Recruitment/ Evaluation Consultant Services using TRANING MANUALS from KEBS / KAM ILO/ UNDP /U.S.A.I.D / J.I.C.A/ U.S.A.D/ KENYA ASSOCIATION OF MANUFACTURERS ( K.A.M)</li> <li>Engineering Entrepreneurship / Micro –Finance/ Management/Training/ Insurance Industry Consultancy services using TRAINING MANUALS from ILO/UNDP/J.I.C.A /U.S.A.D / KENYA ASSOCIATION OF MANUFATURERS (K.A.M)</li> <li>Export /Import management/ Marketing/Promotion/ Logistics/Finance Training Consultancy services using TRAINING MANUALS from ILO / UNDP / J.I.C.A / U.S.A.I.D.</li> <li>I have worked for these foreign Countries / International NGO's; J.I.C.A (Japan), U.S.A.I.D (U.S.A), G.T.Z (Germany) S.I.D.A (SWEDEN). Please refer to the enclosed Testimonials/documents / Letters as further evidence for our operations/ activities.</li> <li>Consultancy in Management/Training for PUBLIC PROCUREMENT OVERSIGHT AUTHORITY (PPOA) for al procurement contracts/Tenders for Bidders in Kenya (see the enclosed letters).</li> <li><u>THE FUTURE GREEN Renewable Energy &amp; BLUE ENERGY Economy</u> Renewable Energy Technologies are : Solar Energy PV Hot Water Heating Systems (SWHS) / Solar " Electric-Hybrid - Powered " Road Transport Vehicles /Tri - Cycles &amp; Motor Cycles (Boda -Boda) / " SOLAR Hybrid - Powered " Aviation Aircraft Engines / Solar Energy PV Systems Designs &amp; Installations / Bio Gas Energy Systems / Geo - Thermal Energy Systems / Wind Energy / Bio-Fuels / Bio - Mass / / Mini Hydro etc)</li> <li></li> </ol>

<p>WORK EXPERIENCE, PROFESIONAL ACADEMIC EDUCATION TRAINING DEVELOPMENT, NATIONAL CONTRACTS/ JOBS RESPOSIBILITIES AND ACTIVITIES AS PER THE TVETA ACT—2013 &amp; ENERGY ACT 2006SS</p>	<p><b><u>1996 To Date (2019) THE TECHNICAL UNIVERSITY OF KENYA (T.U. K. NAIROBI</u></b> <b><u>( Teaching , Research Projects Development &amp; Competency Skills Based Technical</u></b> <b><u>Training at Technical University of Kenya (TUK) , 47 –County Based Energy - Saving</u></b> <b><u>Companies )</u></b></p> <ol style="list-style-type: none"> <li>1. Senior Principal Lecturer in Mecha-Tronics / SMEs Entrepreneurships &amp; Ent. Projects / Solar Energy PV Systems Designs &amp; Installations ( Off- Grids / Hybrids / Mini-Grids – Micro Grids - Solar Home Systems , Solar Hot Water Heating Systems etc. ) / Industrial Energy Efficiency / Energy Auditing/ Energy Conservations / Renewable Energy Technologies ( Off – Grid / Hybrids / Mini- Grids ) Productivity Improvement / Industrial SMEs Entrepreneurship Projects / Vehicle Technology Panel Beating / Automotive Engineering in Mechanical &amp; Mecha-Tronics Engineering Department</li> <li>2. Supervision of Mechanical/ Airframe / Engines Research Projects for all students <b><u>THE FUTURE GREEN Renewable Energy &amp; BLUE ENERGY Economy Renewable Energy Technologies are : Solar Energy PV Hot Water Heating Systems (SWHS) / Solar " Electric- Hybrid - Powered " Road Transport Vehicles /Tri - Cycles &amp; Motor Cycles (Boda-Boda) / " SOLAR Hybrid - Powered " Aviation Aircraft Engines / Solar Energy PV Systems Designs &amp; Installations / Bio Gas Energy Systems / Geo - Thermal Energy Systems / Wind Energy / Bio- Fuels / Bio - Mass / / Mini Hydro etc)</u></b></li> <li>3. Tailor—Made / In—House Industrial Energy Efficiency / Energy Auditing / Solar Energy PV Systems Designs &amp; Installations Courses as requested in many ENERGY FACILITIES SMEs in 47 Counties in Kenya / <b>Solar Hot Water Heating Systems</b></li> <li>4. Higher National Diploma and Diploma in Transport Management (all Subjects) / Vehicle Engineering / Engine Designs</li> <li>5. Human Resource Management Courses and Subjects</li> <li>6. Air Transport Economics / Human Factors in Aviation Industry/Engineering Maintenance, Services and Operations (Ergonomics)</li> <li>7. Energy Efficiency Manage Conservations ( Theory &amp; Practice )</li> <li>8. Customer Service Management</li> <li>9. Aviation Laws / Agreements (I.C.A.O / K.C.A.A / I.A.T.A / Regulations and rules)</li> <li>10. High National Diploma and Diploma in Travel and Tourism Development Operations</li> <li>11. Air Maintenance Certificate Course (Kenya Poly)</li> <li>12. Aviation Safety and Security Courses</li> <li>13. Aviation Insurance Services</li> <li>14. I.C.A.O / K.C.A.A/ I.A.T.A Rules and Regulations for Aviation Industry</li> <li>15. Supervision of Mechanical/ Airframe / Engines Research Projects for all students</li> </ol>
<p>WORK EXPERIENCE, PROFESSIONAL, ACADEMIC, TRAINING DEVELOPMENT, NATIONAL CONTRACTS/JOBS RESPONSIBILITIES AND ACTIVITIES 1988 – 1998</p> <p>ENGINEERING COUNSULTANCY TECHNICAL TRAINING/ MARKETING / CAPACITY BUILDING / RESEARCH / CAREER DEVELOPMENT OBJECTIVE / ACTIVITIES / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES &amp; ACTIVITIES/ FIELD WORK AS PER THE ENERGY ACT 2006 &amp; TVETA ACT---2013</p>	<p><b><u>1988 – 1996 KENYA NATIONAL EXAMINATION COUNCIL (K.N.E.C)</u></b> <b><u>NAIROBI</u></b> <b><u>I worked at KNEC as Principal Examination Secretary ( Officer) in</u></b></p> <ol style="list-style-type: none"> <li>1. Design &amp; Development of KNEC Exam Papers in Engineering Industrial Energy Efficiency / Energy Auditing / Solar Energy PV Systems Designs &amp; Installations / Business Management Subjects KNEC Exam Papers as per the TVETA Sylabi and Higher Diploma/ Diploma / Technician / Artisan International &amp; National Certificates LEVELS</li> <li>2. Processing all KNEC International &amp; National Higher Diploma and Diploma / Technicians / Artisan Certificates Levels / Subject / Trades (Mecha—Tronics / Electrical &amp; Electronics / Aeronautical/Automotive Engineering subjects</li> <li>3. Engineering / Entrepreneurship Development Education Trade Subjects</li> <li>4. Recruitment / Training &amp; Appointment of Chief Technical Examiners for the 500 Public &amp; Private Technical Vocational Institutes / Technical Colleges &amp; Technical Universities in Energy Efficiency/ Energy Auditing / Solar Energy PV Systems Designs &amp; Installations ( Off-Grids / Hybrids / Mini-Grids ) and all Engineering Subjects / Trade areas</li> <li>5. The KNEC Setting /Moderating / Proof- Reading / Processing Industrial Energy Efficiency / Energy Auditing / International &amp; National Examination Papers in all subject/Trade areas from KNEC</li> <li>6. Training /Teaching all Chief Engineering Technical Examiners for Engineering / Solar Energy PV Systems Designs &amp; Installations ( Off-Grids / Hybrids / Mini- Grids ) / Industrial ENERGY Efficiency / Energy Auditing and Business Management Exam papers</li> </ol>

<p>WORK EXPERIENCE, PROFESIONAL ACADEMIC EDUCATION TRAINING DEVELOPMENT, NATIONAL CONTRACTS/ JOBS RESPOSIBILITES AND ACTIVITIES AS PER THE TVETA ACT—2013 &amp; ENERGY ACT 2006SS</p> <p>ENGINEERING COUNSULTANCY TECHNICAL TRAINING/ MARKETING / CAPACITY BUILDING / RESEARCH / CAREER DEVELOPMENT OBJECTIVE / ACTIVITIES / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES &amp; ACTIVITIES / FIELD WORK AS PER THE ENERGY ACT 2006 &amp; TVETA ACT---2013</p>	<p><b><u>1997-1998 - KENYA TECHNICAL TEACHERS COLLEGE (K.T.T.C.) NAIROBI</u></b></p> <p>Higher National Diploma in Industrial SMEs Entrepreneurship Development Practical Engineering Technical Subjects Studied and currently Teaching at Technical University of Kenya :</p> <ol style="list-style-type: none"> <li>1. Consultancy, Counseling and Guidance</li> <li>2. Production Management / Solar Energy PV Systems Designs &amp; Installations / Industrial Energy Efficiency / Energy Auditing</li> <li>3. Human Resource Management</li> <li>4. Project Evaluation / Monitoring and Implementation / Industrial Energy Efficiency</li> <li>5. Entrepreneurial Behavior</li> <li>6. Business Plan Project Development</li> <li>7. Research Methodology / Energy Conservations</li> <li>8. Marketing Management ( Theory &amp; Practice )</li> <li>9. Financial Accounting and Management</li> <li>10. Instructor / Trainers Development Techniques / Methods</li> <li>11. Customer Service Management / training / Energy</li> <li>12. Curriculum Development and Evaluation Methods</li> <li>13. Enterprise (Company) Management and Development</li> </ol>
<p>THE CLIMATE CHANGE MITIGATION / ADVOCACY &amp; ENVIRONMENT COMPLIANCE <a href="#">Management / Conservations Projects through INDUSTRIAL - COMMERCIAL ENERGY EFFICIENCY &amp; RENEWABLE ENERGY TECHNOLOGIES</a> ENGINEERING COUNSULTANCY TECHNICAL TRAINING / MARKETING / CAPACITY BUILDING / RESEARCH &amp; CAREER DEVELOPMENT OBJECTIVE / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES &amp; FIELD WORK AS PER THE ENERGY ACT 2006 &amp; TVETA - CDAAC ACT---2013 / KETRB - TVETA ( Job &amp; Wealth Creators Act 2016 ) - Refer Attachments / Testimonials) Work Experiences</p>	<p><b><u>FROM 1981 – 1990 ( Teaching , Research Projects Development &amp; Competency Skills Based Technical Training at JKUAT, 47 –County Based Energy - Saving Companies )</u></b></p> <p><b><u>THE JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY (JKUAT) , NAIROBI/ JUJA</u></b></p> <p>I worked as Assistant Lecturer &amp; Lecturer / Senior Lecturer in Renewable Energy Technologies / Mecha-Tronics /Automotive &amp; Road Transport Vehicles &amp; Agriculture Machinery / Industrial Plant / Production / Aeronautical Engineering Diploma &amp; Higher Diploma Subjects</p> <ol style="list-style-type: none"> <li>1. Mathematics</li> <li>2. Mecha-Tronics Engineering / Solar Energy PV Systems / Industrial Energy Efficiency &amp; Renewable Energy Technologies</li> <li>3. / Industrial SMEs Entrepreneurships</li> <li>4. Mechanical Engineering Workshop Technology (Theory / Practice)</li> <li>5. Thermodynamics / Solar Energy / Fluids Energy Efficiency</li> <li>6. Fluid Mechanics / Heat Energy Efficiency &amp; Renewable Energy Technologies</li> <li>7. Mechanics of Machines/ flight Mechanics / SMEs Entrepreneurship</li> <li>8. Industrial Entrepreneurships / Micro – Finance Development</li> <li>9. Engineering Drawing and Design</li> <li>10. Transport Management and Development / SMEs entrepreneurship</li> <li>11. Engineering Workshop Management / Safety / Laws</li> <li>16. Supervision of Mecha-Tronics Engineering Research / Trade Projects for all Third Year Students Supervision of Mechanical/ Airframe / Engines Research Projects for all students <a href="#">THE FUTURE GREEN Renewable Energy &amp; BLUE ENERGY Economy</a> Renewable Energy Technologies are : Solar Energy PV Hot Water Heating Systems (SWHS)/ Solar " <a href="#">Electric- Hybrid - Powered</a> " Road Transport Vehicles/Tri - Cycles &amp; Motor Cycles (Boda -Boda)/ " <a href="#">SOLAR Hybrid - Powered</a> " Aviation Aircraft Engines / Solar Energy PV Systems Designs &amp; Installations / Bio Gas Energy Systems / Geo - Thermal Energy Systems / Wind Energy / Bio- Fuels / Bio - Mass / / Mini Hydro etc)</li> </ol>
	<p><b><u>1983 – 1985 - THE KYOTO UNIVERSITY (KYOTO CITY) JAPAN (Teaching at JKUAT- Juja / Japanese Government Scholarship Studied &amp; Worked in Japan Industrv – Toyota / Nissan / Isuzu / Mitsubishi / Nokia / Sanyo / SONY , Sumitomo Companies etc.)</u></b></p> <ol style="list-style-type: none"> <li>1. Mecha-Tronics Engineering / Industrial Energy Efficiency and Renewable Energy Technologies /Design Methods</li> <li>2. Mecha-Tronics Engineering Operation Design and Development / Industrial Energy Efficiency / Industrial Energy Auditing</li> </ol>



ACADEMIC EDUCATION AND PROFESSIONAL TRAINING & QUALIFICATIONS AND EXPERIENCES	<ol style="list-style-type: none"> <li>3. Engineering Service Design and Development / Energy Efficiency</li> <li>4. Solar Energy PV Systems Designs &amp; Installations ( Off-Grids / Hybrids / Mini-Grids, Micro - Grids – Solar Home Systems , Solar Hot Water Heating Systems ) Research Methodology and Design / Energy Applications</li> <li>5. Industrial Energy Efficiency : Engines / Power Plant Design, Services and Operations / SMEs Industrial entrepreneurship</li> <li>6. Industrial Energy Auditing : Aeronautical / Automotive Tools/ Machines/ Equipment <ol style="list-style-type: none"> <li>a. Design Principles and Development (I.S.O)</li> </ol> </li> </ol>
ENGINEERING COUNSULTANCY TECHNICAL TRAINING/MARKETING / CAPACITY BUILDING / RESEARCH / CAREER DEVELOPMENT OBJECTIVE / ACTIVITIES / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES & ACTIVITIES/ FIELD WORK AS PER THE ENERGY ACT 2006 & TVETA ACT---2013	<p><b><u>1980 – 1981 THE KENYA TECHNICAL TEACHERS COLLEGE (K.T.T.C.) NAIROBI</u></b></p> <ul style="list-style-type: none"> <li>• Passed Diploma in Mecha-Tronics Engineering Technical Education with 2<sup>nd</sup> class</li> <li>• Lecturing / Teaching / Tests &amp; Measurements Methods</li> <li>• Lessons Plan Development and Evaluation methods</li> <li>• Instructor/ Teaching / Tests &amp; Measurements Development Methods // Industrial Energy Efficiency / Solar Energy</li> <li>• Design and Development of Teaching materials</li> <li>• Mecha—Tronics Engineering / Industrial Energy Efficiency Tests and Measurements ( Setting and Moderating Exams, Papers Methods)</li> </ul>
ENGINEERING COUNSULTANCY TECHNICAL TRAINING/MARKETING / CAPACITY BUILDING / RESEARCH / CAREER DEVELOPMENT OBJECTIVE / ACTIVITIES / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES & ACTIVITIES/ FIELD WORK AS PER THE ENERGY ACT 2006 & TVETA ACT---2013	<p><b><u>1979 THE STRUGAT UNIVERSITY, ( WEST GERMANY)</u></b></p> <ol style="list-style-type: none"> <li>1 Further training in Energy Efficiency / Energy Auditing Management Science (theory and Practice) And Supervision Techniques in Automotive/ Aeronautical / Engineering Workshops in West German</li> <li>1. Special Training for Trainers in Aeronautical / Automotive Engineering Subjects (T.O.T) / Energy Efficiency / SMEs Industrial Entrepreneurship</li> <li>2. Customer Service Management Techniques and Supervision</li> <li>3. Human Factors in Transport / Aviation Industry / Engineering, Maintenance Services and Operations</li> <li>4. Quantitative Methods Techniques / Statistics (Q.M)</li> <li>5. Research Methods</li> </ol>
THE CLIMATE CHANGE MITIGATION / ADVOCACY & ENVIRONMENT COMPLIANCE <b>Management / Conservations Projects through INDUSTRIAL - COMMERCIAL ENERGY EFFICIENCY &amp; RENEWABLE ENERGY TECHNOLOGIES</b> ENGINEERING COUNSULTANCY TECHNICAL TRAINING /MARKETING / CAPACITY BUILDING / RESEARCH & CAREER DEVELOPMENT OBJECTIVE / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES & FIELD	<p><b><u>1976 – 1980 THE KENYA POLYTECHNIC UNIVERSTY COLLEGE (NAIROBI)- Currently Technical University of Kenya (TUK)</u></b></p> <p>Working at the HUGHES / CMC Engineering LTD &amp; Studied for Diploma Mecha-Tronics Engineering : Automotive / Aeronautical Engineering / Road Transport &amp; Logistics / Insurance Management</p> <p>Passed with credit:</p> <ol style="list-style-type: none"> <li>1. Mecha-Tronics Engineering / Airframe/ Engine/ Power Plant Design and Operations</li> <li>2. Mecha-Tronics Engineering Science and Application / Energy Efficiency /</li> <li>3. Mechanics of Fluid and Machines / Heat Energy / Solar Energy Uses &amp; Applications in al ENERGY Facilities</li> <li>4. Mecha-Tronics Engineering Workshop Tools, Machines , Accessories, Materials and Processes</li> <li>5. Mechanical Engineering Technology (Theory/ Practice) / Industrial ENERGY Efficiency / Solar Energy Applications</li> </ol>

<p>WORK AS PER THE ENERGY ACT 2006 &amp; TVETA - CDAAC ACT---2013 / KETRB - TVETA ( Job &amp; Wealth Creators Act 2016 ) - Refer Attachments / Testimonials) Work Experiences</p>	<ol style="list-style-type: none"> <li>6. Mecha-Tronics Engineering Drawing Practice, Concepts and Design</li> <li>7. Mecha-Tronics Engineering Workshop Planning and Design/ Safety Procedures/ Regulations/ Rules / Laws / ENERGY Uses Laws</li> <li>8. Human Factors in Transport/ Aviation Industry/ Mecha-Tronics Engineering Machines / Maintenance, Services and Operations (Ergonomics)</li> </ol>
<p>FURTHER PROFESSIONAL WORK AND CONTRACTS/ JOBS WITH NATIONAL RESPONSIBILITIES AND ACTIVITIES/ PRACTICAL FIELD &amp; SITES / CASE STUDY VISITS AND ACTIVITIES</p>	<p><b>1975 – 1980 HUGHES LTD / C.M.C. ENGINEERING LTD</b> Mecha-Tronics Engineering Technical Apprenticeship Training in Automotive / Road Transport Vehicles &amp; Agricultural Machinery / Production / Industrial Plant &amp; Energy / Aeronautical Engineering and worked as Workshop Supervisor in Nairobi / Nakuru / Eldoret Branches</p> <p><b><u>1995 to Date ( 2019)</u></b> <b>KEREA – EAREF- KAM - E.R.C. – NEMA - TVETA – CDAAC – KETRB - NITA - KEBS (NQI) / Strathmore University ( Solar PV Systems )- Industrial ENERGY Efficiency AUDITING / Energy Management &amp; Conservations / Energy Efficiency &amp; Renewable Energy Technology - Solar Energy PV Systems ( Off – Grids / Hybrids/ Mini – Grids)</b></p>
<p>ENGINEERING COUNSULTANCY TECHNICAL TRAINING/ MARKETING / CAPACITY BUILDING / RESEARCH / CAREER DEVELOPMENT OBJECTIVE / ACTIVITIES / CONTRACTS MANAGEMENT / JOB RESPONSIBILITIES &amp; ACTIVITIES/ FIELD WORK AS PER THE ENERGY ACT 2006 &amp; TVETA ACT---2013</p>	<ol style="list-style-type: none"> <li>1. Chief Engineering Technical Examiner with Kenya National Examination Council (<b>K.N.E.C / TVETA &amp; NITA / E.R.C. / KAM / Strathmore University - Solar Energy PV Systems Designs &amp; Energy Efficiency Management &amp; Auditing</b> ) and Association of Business Executives (A.B.E London) in ENERGY Efficiency / Energy Auditing / Renewable Energy Technologies ( Off – Grids / Hybrids / Mini – Grids ) / <b>Solar Hot Water Heating Systems</b> / Business Management, Technical/ Aeronautical/ Automotive Subjects and Industrial SMEs Entrepreneurship Development Subjects Energy Engineering / Energy Conservations</li> <li>2. Chief Engineering Examiner with The National Industrial Training Authority (<b>N.I.T.A. / TVETA</b> ) Ministry of Education, Science and Technology</li> <li>3. Curriculum Developer with Kenya Curriculums Development Institute (<b>K C D .I.</b>) Business, SMEs Entrepreneurship Development and Technical/ Engineering Subjects</li> <li>4. Supervision of Mechanical/ Airframe / Engines Research Projects for Companies <b><u>THE FUTURE GREEN Renewable Energy &amp; BLUE ENERGY Economy Renewable Energy Technologies</u></b> are : Solar Energy PV Hot Water Heating Systems (SWHS)/ <b>Solar " Electric- Hybrid - Powered " Road Transport Vehicles/Tri - Cycles &amp; Motor Cycles (Boda-Boda) / " SOLAR Hybrid - Powered " Aviation Aircraft Engines / Solar Energy PV Systems Designs &amp; Installations / Bio Gas Energy Systems / Geo - Thermal Energy Systems / Wind Energy / Bio- Fuels / Bio - Mass / / Mini Hydro etc)</b></li> <li>5.</li> </ol>
	<p><b>1964 – 1970</b> Bondeni Primary School, Nakuru Passed C.P.E with 30 points</p> <p><b>1971 – 1974</b> Menengai High School, Nakuru Passed E.A.C.E with 24 Points</p>
<p>THE CLIMATE CHANGE MITIGATION / ADVOCACY &amp; ENVIRONMENT COMPLIANCE <b>Management / Conservations Projects through INDUSTRIAL - COMMERCIAL ENERGY EFFICIENCY &amp; RENEWABLE ENERGY TECHNOLOGIES</b> ENGINEERING COUNSULTANCY TECHNICAL TRAINING / MARKETING / CAPACITY BUILDING / RESEARCH &amp; CAREER DEVELOPMENT OBJECTIVE / CONTRACTS MANAGEMENT/ JOB RESPONSIBILITIES &amp; FIELD WORK AS PER THE ENERGY ACT 2006 &amp; TVETA - CDAAC ACT---2013 / KETRB - TVETA ( Job &amp; Wealth Creators</p>	<p><b><u>REFEREES</u></b></p> <ol style="list-style-type: none"> <li>1. Prof Da Silva - Deputy Vice Chancellor STRATHMORE University &amp; Executive Director Strathmore Energy Research Center ( Patron of AEPEA (AEE) - KEREA - EAREF ) Energy Efficiency Facilities &amp; Renewable Energy Technology Expert - The Strathmore Energy Efficiency Advanced Research &amp; Training Laboratories (The Strathmore University, Madaraka Nairobi P. O. Box Nairobi</li> <li>2. Mr. J.M. Khakame Deputy Secretary Post School Technical Examination Kenya National Examination Council P.O. Box 73598 NAIROBI</li> </ol>

<p>Act 2016) - Refer Attachments / Testimonials) Work Experiences</p>	
<p><b>WORK EXPERIENCE</b>  <b>PROFESSIONAL ACADEMIC</b>  <b>EDUCATION TRAINING,</b>  <b>DEVELOPMENT NATIONAL</b>  <b>CONTRACTS/JOBS</b>  <b>RESPONSIBILITIES AND</b>  <b>ACTIVITIES AS PER THE</b>  <b>ENERGY Act 2006 / TVETA Act</b>  <b>2013 / ERC Energy Reg. 2012</b></p> <p><b>ENGINEERING</b>  <b>COUNSULTANCY TECHNICAL</b>  <b>TRAINING/MARKETING /</b>  <b>CAPACITY BUILDING /</b>  <b>RESEARCH / CAREER</b>  <b>DEVELOPMENT</b>  <b>OBJECTIVE / ACTIVITIES /</b>  <b>CONTRACTS MANAGEMENT /</b>  <b>JOB RESPONSIBILITIES &amp;</b>  <b>ACTIVITIES/ FIELD WORK</b>  <b>AS PER THE ENERGY ACT</b>  <b>2006 &amp; TVETA ACT---2013</b></p>	<ol style="list-style-type: none"> <li>4. Mecha-Tronics Engineering / Industrial Energy Efficiency / Solar Energy PV Systems Designs &amp; Installations Consultancy Services to many MICRO/SMALL/MEDIUM/LARGE (S.M.E) Enterprises in Kenya using TRAINING MANUALS from ILO/UNDP/J.I.C.A /U.S.A.I.D/S.I.D.A/G.T.Z/KENYA ASSOCIATION OF MANUFACTURES(KAM)</li> <li>5. Engineering Consultancy Services- Installations/ Inspections of electrical/ Electronics and Telecommunication Services.</li> <li>6. Mecha-tronics Installations/ Inspection/ Repair Services.</li> <li>7. Human Resources Management Training/ Recruitment/ Evaluation Consultar Services using TRAINING MANUALS from ILO/UNDP/J.I.C.A/U.S.A.I.D/S.I.D.A/G.T.Z/KENYA ASSOCIATION OF MANUFACTURES(KAM)</li> <li>8. Engineering Entrepreneurship / Micro – Finance/ Management/ Training / Insurance Consultancy services using TRAINING MANUALS from ILO/UNDP/J.I.C.A/U.S.A.I.D/S.I.D.A/G.T.Z/KENYA ASSOCIATION OF MANUFACTURES(KAM)</li> <li>9. Export / Import Management / Marketing / Promotion / Logistics/ Finance Training Consultancy services using TRAINING MANUALS from ILO/UNDP/J.I.C.A/U.S.A.I.D</li> <li>10. I have worked ofr these foreign countries / International NGO's; J.I.C.A (Japan), U.S.A.I.D. (USA), G.T.Z (Germany) S.I.D.A (SWEDEN). Please refer to the enclosed testimonials/ documents/ letters as further evidence for our operations / activities</li> <li>11. Consultancy in Management / Training for PUBLIC PROCUREMENT OVERSIGHT AUTHORITY (PPOA) for all procurement Contracts/ Tenders for Bidders in Kenya (see the enclosed letters.</li> </ol>
<p><b>WORK EXPERIENCE</b>  <b>PROFESSIONAL ACADEMIC</b>  <b>EDUCATIONAL TRAINING /</b>  <b>DEVELOPMENT/NATIONAL</b>  <b>CONTRACTS / JOBS</b>  <b>RESPONSIBILITIES AND</b>  <b>ACTIVITIES / FIELD WORK &amp;</b>  <b>SITES ACTIVITIES</b></p> <p><b>THE CLIMATE CHANGE</b>  <b>MITIGATION / ADVOCACY &amp;</b>  <b>ENVIRONMENT</b>  <b>COMPLIANCE <u>Management /</u></b>  <b><u>Conservations Projects through</u></b>  <b>INDUSTRIAL - COMMERCIAL</b>  <b>ENERGY EFFICIENCY &amp;</b>  <b>RENEWABLE ENERGY</b>  <b>TECHNOLOGIES</b>  <b>ENGINEERING</b>  <b>COUNSULTANCY TECHNICAL</b>  <b>TRAINING /MARKETING /</b>  <b>CAPACITY BUILDING /</b>  <b>RESEARCH &amp; CAREER</b>  <b>DEVELOPMENT</b>  <b>OBJECTIVE / CONTRACTS</b>  <b>MANAGEMENT/ JOB</b>  <b>RESPONSIBILITIES &amp; FIELD</b>  <b>WORK AS PER THE</b>  <b>ENERGY ACT 2006 &amp; TVETA</b>  <b>- CDAAC ACT---2013/ KETRB -</b>  <b>TVETA ( Job &amp; Wealth Creators</b>  <b>Act 2016) - Refer Attachments /</b>  <b>Testimonials) Work Experiences</b></p>	<p><b><u>2003 to 2019</u></b></p> <ol style="list-style-type: none"> <li>1. <b>ENERGY ACT (2006) &amp; TVET ACT—2013 / INTERNATIONAL ENERGY EFFICIENCY MANAGEMENT / ENERGY AUDITING / SOLAR ENERGY PV SYSTEMS DESIGNS EFFICIENCY---INSPECTIONS / TESTING / CALIBRATIONS / MEASUREMENTS / VERIFICATIONS &amp; RATING IN FACTORIES / HOTELS / HOSPITALS ( Kaluworks / Bamburi / Vivo Energy / Coca Cola / Arthi River Mining / KPLC / BAT / KBL / Bidco / Del Monte ) ENERGY LICENSING SPECIAL COURSES WITH KENYA ASSOCIATION OF MANUFACTURERS (K.A.M) / MINISTRY OF ENERGY / ENERGY REGULATORY COMMISSION (E.R.C) / JAPAN INTERNATIONAL CO-OPERATION AGENCY (J.I.C.A) / U.S.A.I.D / G.T.Z</b></li> <li>2. Practical-Hands- On Engineering Technical Training / Field Work in Industries / Factories for <b>ENERGY</b> Efficiency Auditing / Calibration / Inspection / Installation in many Industries / Mombasa/ Kisumu/ Nairobi / Nakuru / Eldoret</li> <li>3. K.A.M / E.R.C. / NITA Energy Auditing for Industries Course April 2008</li> <li>2 JICA / K.A.M / UNDP-- Energy Management for S.M.Es Course 2003</li> <li>4. K.A.M / NITA / ERC - Biofuel and Solar Technology for Industry Course April 2008</li> <li>5. K.A.M / ERC / JICA-- Investment Grade Energy Auditing (SMEs) Course 2008</li> <li>6. K.A.M / E.R.C./ NITA General Energy Auditing for Industry (SMEs) Course December 2008 K.A.M / E.R.C. Green Building and Energy Course August 2009</li> <li>7. J.I.C.A / NITA / KAM Energy Efficiency Licensing Course (SMEs) Mumias Sugar August 2006.....</li> <li>8. U.S.A.I.D / KAM Energy Licensing Course (SMEs) Kibos Sugar 2007</li> <li>9. Supervision of Mechanical/ Airframe / Engines Research  Projects for Companies - <u>THE FUTURE GREEN Renewable Energy &amp; BLUE ENERGY Economy</u> Renewable Energy Technologies are : Solar Energy PV Hot Water Heating Systems (SWHS)/ <u>Solar " Electric- Hybrid - Powered " Road Transport Vehicles /Tri - Cycles &amp; Motor Cycles (Boda-Boda) / " SOLAR Hybrid - Powered " Aviation Aircraft Engines / Solar Energy PV Systems Designs &amp; Installations / Bio Gas Energy Systems / Geo - Thermal Energy Systems / Wind Energy / Bio- Fuels / Bio - Mass / / Mini Hydro etc)</u></li> <li>10.</li> </ol>

<u>INTERNATIONAL NGOS PRACTICAL WORK</u> <u>EXPERIENCE IN CONSUTANCY PRACTICAL TRAINING /</u> <u>ENERGY EFFICIENCY / SOLAR ENERGY PV SYSTEMS</u> <u>DESIGNS / RESEARCH / CAPACITY BUILDING (JICA /</u> <u>USAID / ILO / UNDP / SIDA / NITA / KAM / ERC / VOCTEC /</u> <u>KEBS / JKUAT / KERA . / Strathmore University &amp; Arizona</u> <u>State University - USA )</u> (Mr. Odhiambo Odawa )	<u>SPONSORS / VENUES /</u> <u>TOWNS / HOTELS ( Please</u> <u>Refer Certificates )</u>	<u>Date/ days / Year</u>
Industrial Energy Efficiency & Renewable Energy Technology ( Solar Energy PV Design & Installations ( Off – Grid / Hybrid / Mini – Grids ) Advanced Practical Course ERC /GIZ/ Project	The Strathmore University Energy Research Center / ERC / KAM / TVETA / GIZ / KEBS / NITA / KERA	21 <sup>st</sup> to 25 <sup>th</sup> Sept. 2015
The International Certificate <u>GEOTHERMAL Energy</u> <u>Efficiency / OIL &amp; GAS Engineering Technical Training</u> <u>Workshop –UP—Stream &amp; Down-Stream Operations</u> <u>Explorations / Drilling / Refinery Processes / Distribution /</u> <u>Inspections / Testing / Calibrations / Measurements /Verifications/</u> <u>Rating of Machines / Tools / Equipment )</u>	The Japan- JICA / Indian & Kenya Governments Project ERC /NITA /TVETA / KAM /KEBS / KERA	15 <sup>th</sup> --17 <sup>th</sup> April 2015
The International Technical Training in Solar Energy PV Systems Designs & Installations ( Off-Grids / Hybrids / Mni- Grids ) for Educators (T.O.T.) / Energy Regulatory Commission E.R.C. & NITA) Licensing (T-1 / T -2 / T- 3) Course/ VOCTEC USAID / USA / Kenya Project	The Strathmore University & The Arizona State University Training Program / ERC / KEBS KAM / TVETA / GIZ / KERA	July 8 <sup>th</sup> --30 <sup>th</sup> 2014
The JICA / NITA / ERC / Solar Energy PV Systems Designs & Installations ( Off-Grids / Hybrids / Mini-Grids) International Course for Educators ( T.O.T.) / Energy Regulatory Commission E.R.C. & NITA ) T -1 / T-2 / T- 3) Course — Japan B.R.I.G.H.T. Energy Efficiency Project	The JKUAT—I.E.E.T. / ERC / KAM /NITA / KERA /TVETA / KEBS /Japan	October 14 <sup>th</sup> –30 <sup>th</sup> 2014
<u>CERTIFIED ENERGY MANAGEMENT &amp; ENERGY</u> <u>AUDITING (C.E.M.) International Course</u> <u>A.E.E. / U.S.A. / South Africa / KAM / E.R.C. / NITA )</u>	THE SANKARA HOTEL (Nairobi ) & The Association of Energy Engineers ( A.E.E. – USA & <u>South Africa)</u>	5 <sup>TH</sup> - 16 <sup>TH</sup> /10/2013
<u>Practical ENERGY Efficiency AUDITING Course</u> (KAM / NITA / E.R.C. / KEBS / KERA / Ministry of Energy )	The Pan-Afric Hotel Nairobi	5 <sup>th</sup> ---11 <sup>th</sup> -/6/ 2011
<u>Practical ENERGY Efficiency Management &amp; Conservations</u> <u>Course</u> (KAM / NITA / E.R.C. / KEBS / KERA /Ministry of Energy)	The Royal Court Hotel Mombasa	10 <sup>th</sup> ---16 <sup>th</sup> -/9/ 2012
<u>Practical ENERGY Efficiency AUDITING Course</u> ( KAM / E.R.C. / NITA / KEBS / KERA / Ministry of Energy )	The Sarova WhiteSands Hotel Mombasa	14 <sup>th</sup> ---19 <sup>th</sup> -/4/ 2014
Practical PRODUCTIVITY IMPROVEMENT at Work—Places CONSULTANTS Course (Productivity Center of Kenya / JICA/ KAIZEN / NITA )	The Productivity Center/ JICA HQS Nairobi	5 <sup>TH</sup> —13 <sup>TH</sup> -/11/ 2013
<u>The Practical ENERGY Efficiency / Insurance / Banking &amp;</u> <u>Finance Course</u> (KAM / E.R.C. / NITA / Ministry of Energy )	Sarova White sands Hotel	12 <sup>th</sup> ----18 <sup>th</sup> -/ 6/2013



Practical Energy Efficiency Auditing & Financial Engineering Course ( KAM / ERC / KERA / KEBS / Ministry of Energy 0	<b>Mombasa</b> <b>Sirikwa Hotel (Hotel) &amp; Panaris Hotels (Nairobi)</b>	June 2015 & August 2015
1. JICA/KAIZEN SMEs Solar Energy PV/ Industrial Energy Efficiency/Business Management-Trainin	Coconut Grill Hotel, Thika City	20-25 / 08 / 2012
2. JICA /KAIZEN Solar Energy PV Energy Efficiency Business Management Training Programme (S.M.Es)	Kariobangi Light Industries -Nairobi	18 – 23 <sup>rd</sup> /06/2012
3. JICA/ EPC Export Marketing 9 (S.M.Es)	Nairobi / Kisumu	23 – 24 /06/2012
4. JICA / EPC EXPORT Logistics & Finance (S.M.Es)	Nairobi/ Mombasa	July 2011
5. JICA / EPC EXPORT Trade Training / Energy Efficiency – BEGINNERS COURSE (S.M.Es)	Malindi / Kisii Nakuru	10 – 19/1/2010
6. JICA/ EPC Export Training of Trainers / Energy Efficiency & Solar Energy PV Course (S.M.Es)	Nairobi / Eldoret	28 – 29/ 11/2009
7.		
8. JICA / EPC EXPORT TRADE training – INTERMEDIATE COURSE	Kisumu / Eldoret	10 – 16 /2/2011
9. JICA/ KAM Energy Auditing/ Management (Solar Energy S.M.Es) Energy/ Inspection/ Calibration/ Insatllation	Mombasa / Nairobi	13 – 15/10/2010 14-16 06/2011

