### **CURRICULUM VITAE**



## Engr. SAFYANU BASHIR DANJUMA PhD

### **ADDRESS:**

MECHANICAL ENGINEERING DEPARTMENT

SCHOOL OF ENGINEERING,

ABUBAKAR TATARI ALI POLYTECHNIC, BAUCHI, NIGERIA

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NATIONALITY: NIGERIA DATE OF BIRTH: 25<sup>TH</sup> October 1977

STATE OF ORIGIN: BAUCHI L.G.A: TAFAWA BALEWA

SEX: MALE MARITAL STATUS: MARRIED

EMPLOYER: ABUBAKAR TATARI ALI POLYTECHNIC, BAUCHI, NIGERIA

**EMPLOYMENT STATUS:** LECTURER

**RANK:** CHIEF LECTURER 2022 to Date

EDUCATIONAL INSTITUTION ATTENDED WITH QUALIFICATION

UNIVERSITI TUN HUSSEIN ONN MALAYSIA 2016 - 2021

PhD MECHANICAL ENGINEERING (Conceptual Design and Multidisciplinary Optimisation of Power Device for Solar-Powered Aircraft)

BAYERO UNIVERSITY, KANO, NIGERIA 2012 - 2015

M-Eng (Energy) MECHANICAL ENGINEERING

BAYERO UNIVERSITY, KANO, NIGERIA 2008 - 2010

PGD MECHANICAL ENGINEERING

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGERIA 1995-2001

B-Eng AGRICULTURAL ENGINEERING

FEDERAL GOVERNMENT COLLEGE, SOKOTO, NIGERIA 1988-1993 SECONDARY SCHOOL CERTIFICATE MODEL PRIMARY SCHOOL SECRETARIAT ROAD, SOKOTO, NIGERIA 1982-1988 PRIMARY SCHOOL CERTIFICATE WORKING EXPERIENCE ABUBAKAR TATARI ALI POLYTECHNIC, BAUCHI, NIGERIA **2004 TO DATE** PART-TIME WORKING EXPERIENCE **2022 TO DATE** FEDERAL POLYTECHNIC, BAUCHI POSITIONS HELD WITH DATES SCHOOL OF ENGINEERING SIWES COORDINATOR 2006 - 2008 ABUBAKAR TATARI ALI POLYTECHNIC, BAUCHI, NIGERIA Ag HEAD OF DEPARTMENT MECHANICAL ENGINEERING Ag DEAN SCHOOL OF ENGINEERING 2010-2012 ABUBAKAR TATARI ALI POLYTECHNIC, BAUCHI Ag DEAN SCHOOL OF ENGINEERING 2014-2016 ABUBAKAR TATARI ALI POLYTECHNIC, BAUCHI, NIGERIA HEAD OF DEPARTMENT MECHANICAL ENGINEERING SCHOOL OF ENGINEERING 2021- TO DATE ABUBAKAR TATARI ALI POLYTECHNIC, BAUCHI, NIGERIA PROFESSIONAL MEMBERSHIP COUNCIL FOR THE REGULATION OF ENGINEERING IN NIGERIA (COREN)

NIGERIA SOCIETY OF ENGINEERS (NSE)
INTERNATIONAL SOLAR ENERGY SOCIETY (ISES)
NIGERIA INSTITUTE OF MECHANICAL ENGINEER (NIMechE)

### PROFESSIONAL SKILL ACQUIRED

SOLAR ENERGY SOCIETY OF NIGERIA (SESN)

AutoCAD Operation

**SOLIDWORKS** Operation

MICROSOFT OFFICE Opearation

MECHATRONIC & CNC Operation

BASIC DESIGN, CALCULATION, SIZING AND INSTALLATION OF SOLAR ENERGY PHOTOVOLTAIC SYSTEMS

SIMULATION AND OPTIMISATION SOFTWARE (ModeFrontier) Operation

# WORKSHOP, SEMINAR/TRAINING AND CONFERENCE ATTENDED WITH DATES

### A. Training;

- i. Computer (Microsoft office and Auto-Cad) 2006
- ii. Mechatronics a. Computer Numerical Control machines (Lathe and Milling)
   Machines and Hydraulic and Pneumatic Machines. 2007
- iii. Photovoltaic/Alternative Energy Design and Installation. 2010

### **B.** Capacity Building Workshops;

- ETF Capacity Building Workshops for lecturers of Polytechnics and Mono-technics 2005.
- Functional Capacity Building in Technical and Vocational Education in Nigeria for Industrial Development. Organized by National Center for Technology Management, 2008.
- Capacity Building Workshop on the Use of Technology for the Delivery of the Curriculum for Teachers of Polytechnics and Mono-technics, 2009. MDGs/DRGs Projects.

#### C. Conferences/Seminars Attended

- National solar energy forum (NASEF 2012) 12-14 November, University of Benin,
   Edo State, Nigeria
- ii. Solar summit 2012, 18- 19 October, Freiburg, Germany
- Nigeria Institute of Mechanical Engineer's 27<sup>th</sup> AGM and International Conference,
   Bauchi city 2014, 8-10 October 2014
- iv. Sustainability Summit 2014, October 13-14, Freiburg, Germany

- v. ASUP ATAP 3<sup>RD</sup> National Conference, Bauchi, 8-11 December, 2014, Bauchi, Nigeria
- vi. National Solar Energy Forum, 2015, 6-7 May 2015, Abuja, Nigeria
- vii. International Solar Energy Society, Solar World Congress 2015, 8-11<sup>th</sup>, November, Daegu, South Korea.
- viii. International Conference on Aviation Technology and Management (ICATeM) 2018
- ix. 2<sup>ND</sup> International Conference on Aviation Technology and Management (ICATeM)
   10, March 2021
- x. International Solar Energy Society, Solar World Congress 2021, 25-29 October 2021 Online
- xi. 9<sup>th</sup> International Symposium on Applied Engineering and Sciences (SAES2021) 5<sup>th</sup>
   8<sup>th</sup> December 2021 Online, Universiti Putra Malaysia Serdang Selangor,
  Malaysia.
- xii. 25<sup>th</sup> May Ordinary General Meeting (OGM) Nigerian Society of Engineer's Bauchi Branch.

### **Publications/Paper Presentations**

Safyanu Bashir Danjuma & Isah Garba "Modelling of Optimum Tilt of a Solar Collector to Receive Maximum Radiation" Nigeria Journal of solar energy, vol25, 2014

Safyanu Bashir Danjuma "Design and Construction of Solar Distillation" Nigeria Institute of Mechanical Engineer's 27<sup>th</sup> AGM and International Conference, Bauchi city 2014, 8-10 October 2014, Bauchi.

Safyanu Bashir Danjuma "Effect of Water Depth on the Performance of Solar Distillation" ASUP ATAP 3<sup>RD</sup> National Conference, Bauchi, 8-11 December 2014, Bauchi, Nigeria

Safyanu Bashir Danjuma & Isah Garba "Effect of Dust on the Performance of Photovoltaic Modules" Nigeria Journal of solar energy, vol27, 2016

Safyanu Bashir Danjuma "Design, Testing and Construction of Solar Water Distillation Unit for Rural Purification in Nigeria" Conference proceedings ISES SOLAR WORLD CONGRESS 2015, EXCO, Daegu, Korea/November 8-12, 2015

Rosli Ahmad, Samir Sani Abdulmalik, Ojonimi Yusuf Usman, Safyanu Bashir Danjuma "Microstructure and wear behaviour of friction stir processed cast hypereutectic aluminium silicon" MATEC Web of Conferences Vol 135 Page 0048, 2017.

Safyanu Bashir Danjuma, Aliyu Mohammed Lawal, Ibrahim Shuaibu Muhammad, Ojonimi Yusuf Usman "Design Construction and Performance Evaluation of Solar Still for Rural Dwellers" Path of Science. 2018. Vol. 4, No 9 ISSN 2413-9009

Ibrahim Shuaibu Mohammed, Aliyu Lawal Mohammed & Safyanu Bashir Danjuma "Properties of Ceiling Board Produced from PiliostigmaThonningii Using Styrofoam Adhesive as Binder" International Journal of Publications, Vol 9, Issue: 1, July Published 07 August 2018

Aliyu Mohammed Lawal, Ibrahim Shuaibu Muhammad & Safyanu Bashir Danjuma "Energy and Power – A brief review on how it works" Journal of Research and Publications Volume-10, Issue-1, August 2018.

Safyanu, B. D., Omar, Z., & Abdullah, M. N. "Review of Photovoltaic Cells for Solar-Powered Aircraft Applications". *International Journal of Engineering & Technology*, 7, 131–135. International Conference on Aviation Technology and Management 2018 (ICATeM 2018)

KT Aminu, MM Jibril, SD Bashir, AG Jumba "Experimental Investigation of Segregation of Granular Materials using the Vibrational Phenomenon" International Journal of Advances in Scientific Research and Engineering 2019

Safyanu, B. D., Abdullah, M. N., & Omar, Z. "Review of Power Device for Solar-Powered Aircraft Applications". Journal of Aerospace Technology and Management, 11, 1–16 2019. https://doi.org/10.5028/jatm.v11.1077

Safyanu, B. D., Omar, Z. & Abdullah, M. N. "Design of Power Device Sizing and Integration for Solar-powered Aircraft Applications". Journal of Mechanical Engineering (JMechE) (ISSN 1823 5514, e ISSN 2550 164X). International Conference on Aviation Technology and Management 2021 (ICATeM 2021).

Safyanu Bashir Danjuma & Kabiru Adamu Saidu "Solar Energy Potentials to Develop Power Device Sizing and Integration for Solar-Powered Aircraft (Uav) Application" International Solar Energy Society, Solar World Congress 2021, 25-29 October 2021 Online.

Safyanu Bashir Danjuma & Kabiru Adamu Saidu "Review of Battery Technological Trend and Advancement for Optimal Applications in Solar-Powered Aircraft (UAV)" 9<sup>th</sup> International Symposium on Applied Engineering and Sciences (SAES2021) 5<sup>th</sup> – 8<sup>th</sup> December 2021 Universiti Putra Malaysia Serdang Selangor, Malaysia.

Safyanu Bashir Danjuma "Aerodynamic Design Consideration for Stability of a Lightweight Solar-Powered Aircraft" *Path of Science. ISSN 2413-9009 Vol 8 No.8 May 2022.* 

Safyanu Bashir Danjuma "Aerodynamic Analysis of Selected Airfoils for Optimal Application in Solar Powered Aircraft" Nigerian Society of Engineering Bauchi Branch, Ordinary General Meeting (OGM) 25<sup>th</sup> May, 2022.

Safyanu Bashir Danjuma & Ayuba Jumba Gin "Solar Energy Applications and Digital Wireless Communications (A Multidisciplinary Book Chapters) Book Published October 2022 ISBN 978-978-791-254-6

**HOBBIES: READING AND WATCHING FOOTBALL** 

REFEREES

DR. Hashim Sabo Bello

**RECTOR** 

Abubakar Tatari Ali Polytechnic, Bauchi.

(08032926715, 08089692957)

PROF. HAMISU MUHAMMAD

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