



EMMANUEL OBED

ROBOTICS ENGINEER | DEFENSE TECHNOLOGY ARCHITECT | AUTONOMOUS SYSTEMS
FOUNDER

FOUNDER & CEO — GUGU ROBOTICS | FOUNDER — NEXUS MARS DEFENCE

BUILDER OF AI-DRIVEN AEROSPACE & ROBOTICS, AUTONOMOUS VEHICLES, AND DEFENSE
PLATFORMS

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PROFILE

Emmanuel Obed is a robotics engineer, defense technology architect, and entrepreneur building next-generation autonomous systems. He is the Founder and CEO of Gugu Robotics and Founder of Nexus Mars, companies focused on advanced robotics, AI-powered vehicles, aerospace platforms, and defense technologies. His work spans autonomous rovers, unmanned aerial systems, tactical armored vehicles, and advanced energy systems such as the PhotonPulse Generator. Emmanuel's mission is to engineer scalable technologies that strengthen industrial capability, national defense infrastructure, and planetary exploration..

- Built one of Africa's fastest-growing robotics and autonomous systems startups focused on defense technology, robotics, aerospace platforms, and advanced energy systems.
- Developed multiple platforms including autonomous rovers, unmanned aerial vehicles, tactical armored systems, and AI-powered robotics.
- Leading research and development toward scalable manufacturing of advanced defense platforms.

WORK EXPERIENCE

2017 – PRESENT

FOUNDER & CEO | GUGU ROBOTICS

- Spearheaded the creation of **Cybunk 5.1**, a futuristic AI-driven rover designed for planetary exploration, featuring regenerative power sources and adaptive learning capabilities.
- Launched the **PhotonPulse Nano Reactor**, providing infinite energy from kinetic power, with successful trials across agriculture and software engineering sectors.
- Led the company to win multiple awards, including Africa's Most Innovative Startup (2023) & Best Defence and AI Technology Solutions Manufacturer (2025)
- Developed the **Sky Sentinel 5th Generation** advanced unmanned fighter jet with energy weapons, stealth technology, and AI-enhanced air superiority.
- Led development of **Cybunk X-LTAI**, a high-mobility Light Tactical Armored Interceptor equipped with a 40mm autocannon, grenade launcher systems, STANAG-level armor protection, and hybrid manned-unmanned operation capability.
- Developed **Phoenix Hybrid UAV**, a high-endurance autonomous drone capable of 8-hour flight time with modular payload architecture for surveillance, logistics, and

tactical missions.

- Designed **Scout 101 HF**, a heavy-lift interception drone platform used for border patrol and high-altitude surveillance operations.
- Architected **Vyron Cruise Missile** concept platform focused on low-signature navigation and precision strike capability.
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2020 - PRESENT

FOUNDER & CEO | NEXUS MARS

- Focused on developing futuristic spacecraft and AI solutions to solve space Transportation challenges in diverse fields including military, search & Rescue operation, underwater exploration, and space exploration.
- Played a key role in establishing new partnerships to foster growth and expand technology solutions globally..

2021 - PRESENT

INDEPENDENT ROBOTICS CONSULTANT | VARIOUS CLIENTS

- Assisted businesses in incorporating robotics and AI technologies to automate operations, improve efficiency, and reduce costs. Projects spanned sectors including military, manufacturing, and logistics.
- Delivered custom robotic systems and consulted on AI-driven process optimization.

2024 - PRESENT

LEAD ENGINEER | IKOROTECH ALPHA SOLUTION

- Developed and implemented precision agriculture drones and robotic systems tailored to enhance agricultural productivity for clients.
- Collaborated with agronomists to optimize drone technology for crop monitoring, pest control, and yield estimation, ensuring sustainable farming practices.

2023 - PRESENT

TECHNICAL CONSULTANT | PHOTONPULSE ENERGY PROJECTS

- Provided technical consultation and oversight for energy generation projects powered by the PhotonPulse Infinity Generator, ensuring seamless integration into various industries like mining, military, agriculture and other technology sectors.

2024 - PRESENT

LEAD ENGINEER | JULIET AI

- Designed and created advanced robotic systems focused on force field applications for client solutions.
- Enhanced system efficiency through innovative algorithms, improving operational capabilities in dynamic environments.

2024 - PRESENT

AMBASSADOR/PARTNER | SWASTIKA AI, ASIA

- Ambassador for Swastika AI, promoting AI-driven solutions across Africa.
- Delivering tailored solutions for clients in diverse sectors, including airport and surveillance, leveraging advanced AI technologies to address local challenges.

2024

PROJECT LEAD | AFRICAN ROVER CHALLENGE

- Designed and led the development of Cybunk 5.1, the award-winning rover for the Cars4Mars African Rover Challenge tied to **NASA**. The rover is capable of self-navigation, astronaut transportation, and adaptability to extraterrestrial environments.

2024

TECH SUPPLIER | MUSH CREATIVE

- Supplied advanced electronic systems for unmanned aircraft technology, contributing to the development of cutting-edge aerial solutions.
- Collaborated with design teams to enhance performance and reliability of unmanned systems.

2023 - PRESENT

LEAD ENGINEER | WEALTH TAILOR

- Created Futuristic Vehicle Design and solution under the Gugu Robotics x Wealth

Tailor brand, focused on enhancing Earth-based transportation through cutting-edge AI and mechanical innovations.

2018 - 2019

ROBOTICS FACILITATOR | STEMI MAKERS AFRICA

- Worked with the NGO to provide free education in technology and robotics to underserved communities in Northern Nigeria.
- Developed training materials and programs that focus on practical applications of technology in local contexts.

2021 - 2022

ROBOTICS FACILITATOR | HIGH TECH CENTER FOR WOMEN AND YOUTH

- Provided basic and intermediate technology training for women and youth, fostering skills development and empowerment in the tech field.
- Designed hands-on workshops to engage participants and facilitate learning in various technological areas.

2023 - 2024

LEAD ENGINEER | PROJECT FIX NIGERIA

- Led a team of engineers to develop homegrown technological solutions, focusing on energy, transportation, and surveillance.
- Oversaw project development from conception to implementation, ensuring alignment with Nigeria's technological needs and potential.

2024

ROBOTICS FACILITATOR | LRDC FOUNDATION

- Collaborated with NGO to deliver intermediate training in technology and programming to young adults and schools in remote settlements.
- Focused on building foundational skills that enable participants to access better educational and economic opportunities.

2023

ROBOTICS FACILITATOR | NIGERIA COMPUTER SOCIETY

- Provided basic and intermediate technology training for political and policy leaders, enhancing their understanding of technology's role in governance and development.
- Developed tailored workshops and resources to equip leaders with essential tech skills for effective decision-making.

2020 - 2021

DRONE SPECIALIST AND ENGINEER | INNOV8HUB - IFAIR ISREAL

- Focused on new designs and upgrades for drone technology, contributing to innovative solutions in various sectors.
- Assisted startups with project development and scaling, providing expertise in drone applications and technology integration.

NOTABLE PROJECT

PHOTONPULSE INFINITY

Developed a revolutionary energy generator that produces infinite kinetic energy,

GENERATOR	transforming industries like agriculture and software engineering through sustainable energy solutions.
CYBUNK 5.1 – AUTONOMOUS PLANETARY ROVER	Built for the Cars4Mars African Rover Challenge, Cybunk 5.1 is an AI-powered, adaptable rover designed for extraterrestrial exploration. It autonomously navigates hostile environments while supporting astronaut transportation and equipment hauling.
SKY SENTINEL – UNMANNED FIGHTER JET	Designed a state-of-the-art autonomous fighter jet featuring energy weapons, advanced sensors, stealth technology, and AI-driven combat strategies for next-generation air superiority.
AWARDS AND RECOGNITION	<ul style="list-style-type: none"> • MOST INNOVATIVE TECHNOLOGY ADVOCATE - 2023 • BEST ROBOTICS SCIENTIST IN AFRICA - 2022 • MOST INNOVATIVE STARTUP IN AFRICA – 2023 • CARS4MARS AFRICAN ROVER CHALLENGE WINNER – 2024 • BEST DEFENCE TECHNOLOGY SOLUTION MANUFACTURER - 2025
PUBLIC SPEAKING & MEDIA	<ul style="list-style-type: none"> • FEATURED SPEAKER AT MULTIPLE TECH CONFERENCES ON AI, ROBOTICS, AND ENERGY INNOVATION. <p>INCLUDING:</p> <ul style="list-style-type: none"> • AFRO FUTURE TECH FEST, LARGEST TECH CONFERENCE IN AFRICA - 2024 • CODEFEST • NIGERIA COMPUTER SOCIETY ADVOCACY MEETING - 2022 • AFRICAN DEFENCE TECHNOLOGY CONFERENCE (DEFCOMM) - 2025
STRATEGIC LEADERSHIP	<ul style="list-style-type: none"> • LEADING INTERNATIONAL PARTNERSHIPS AND INVESTOR ENGAGEMENT TO SCALE GUGU ROBOTICS INTO A GLOBAL DEFENSE TECHNOLOGY MANUFACTURER. • CURRENTLY RAISING CAPITAL TO EXPAND PRODUCTION OF AUTONOMOUS VEHICLES, DEFENSE ROBOTICS, AND AEROSPACE PLATFORMS.
EDUCATION	
2020 - 2023	<i>Associate of Science (AS)- Computer Software Engineer Lincoln University College.</i>
2019 - 2021	Upperclass - Mechatronics, Robotics, and Automation Engineering School of Technology - Kano State Polytechnic, Nigeria

KEY SKILLS AND CHARACTERISTICS

- Robotics Engineering & Development
- AI & Autonomous Systems
- Advanced Control Systems & Sensors
- Renewable Energy Solutions
- Project Leadership & Innovation Management
- Systems Architecture Design
- Technical Consultancy & Client Relations
- Business Development & Strategic Planning

TECHNOLOGY STACK

- ✓ Autonomous Robotics
- ✓ AI-Driven Navigation Systems
- ✓ Drone Engineering & UAV Systems
- ✓ Defense Vehicle Systems
- ✓ Advanced Sensor Integration
- ✓ Embedded Systems (ESP32 / Microcontrollers)
- ✓ Autonomous Navigation Algorithms
- ✓ Aerospace Concept Design
- ✓ Robotics Prototyping & Rapid Engineering

LANGUAGES

- English (Advanced), Hausa (Professional). (intermediate)

REFERENCE

- Prince Achoja
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