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Eindhoven, Netherlands

PERSONAL PROFILE

A motivated PhD researcher in Antenna Measurement Systems within RF and Microwave Engineering, eager to advance as an RF Research Engineer. With expertise in research, development, and leadership, I am confident in contributing to innovative projects. My PhD work on advanced antenna measurement techniques equips me to drive impactful solutions in RF technology.

EXPERTISE

CST Studio
Ansys HFSS
ADS
VNA
MATLAB
C++
Python
GitLab
LaTeX
Microsoft Project/Office

YARED LEUL

RF and Microwave Engineer

Education

PhD on sub-THz Reverberation Chambers: Measurements Beyond 300 GHz (IPCEI-6G)

Oct 2024 – Sep 2028

Eindhoven University of Technology (TU/e), Eindhoven, Netherlands

Erasmus Master on Innovative Microwave Electronics

Sept 2022– August 2024

University of Limoges, Limoges, France – University of Brescia, Brescia, Italy

- Website : <http://www.erasmus-master.emimeo.eu/program-details>
- Final grade: 17.54/20 (Excellent)
- Top – 2 student in class
- Holder of fully funded Erasmus Mundus scholarship
- Relevant Courses: Wireless communication, Antennas, RF and Microwave Engineering, Passive components and device for RF systems, Nonlinear Component and Device for RF systems, Telecom networks and systems

Research Exchange February 2021 – July 2021, Seoul, Korea

BSc in Electrical and Computer Engineering

Sept 2015– Dec 2020

Addis Ababa University, Ethiopia

- Website: www.aau.edu.et
- Final grade: 3.95/4.0, Top 1% of the college of Engineering
- Thesis title: Quality and Coverage Optimization of 4G network

Work Experience

Master's Thesis - Antennas for NTN LEO Satellites

March 2024– August 2024

Ericsson R&D : Paris, France

- Designed 40×40 Phased Antenna Arrays operating at S-Band, Ku-Band and Ka-Band for 5G NTN applications.
- Developed advanced beamforming and beam shaping algorithms.
- Conducted system-level simulations and link budget analysis to optimize power management in dynamic beam allocation.
- Studied 5G New Radio (NR) framework and 3GPP standards, evaluating their compatibility with NTN beamforming techniques.
- Engaged in MIMO analysis to improve antenna performance and enhance overall system efficiency.

University Research Assistant

June 2024– August 2023

University of Brescia, Italy

- Designed an Ultra-wideband patch antenna spanning 2.6 GHz to 30 GHz utilizing CST Studio and optimized it using MATLAB.
- Enhanced antenna bandwidth by 10.2% through innovative designs including curved and reverse curved patch configurations.
- Conducted radiation pattern measurements of the patch antenna using Open Area Test Site (OATS) methodology.

SOFT SKILLS

Effective Communication
Time Management
Self-learning
Teamwork
Adaptability
Problem-solving
Critical Thinking
leadership

LANGUAGE

English/ Fluent
French/ Beginner
Italian / Beginner

Technical Projects

- Antenna Array Synthesis for 5G MIMO Radar application Using MATLAB and CST
- Designed RIS Antenna Cells for Q-Band (33-50 GHz) and V-Band (50-75 GHz)
- Building and Training Artificial Neural Networks for Radar Based Gesture Recognition – 13th Tom Brazil Doctoral School of Microwaves at European Microwave Week 2023 Berlin, Germany
- Design of a coaxially fed U-slot patch antenna and measurement (Characterization) in Anechoic Chambers
- Monopole, dipole, and patch antenna Radiation Pattern Measurement with VNA
- Designed a 24 GHz URAD radar using Arduino for position and speed measurements
- Designed a power amplifier operating at 2 GHz.
- Designed Directional couplers in rectangular waveguide technology – HFSS
- Design of Filters, Planar microwave circuits, rectangular and circular waveguides, and Resonators in HFSS

Conferences and Seminars

- European Microwave Week EuMW-2023 at Berlin, Germany
- Research and Industrial Week at Cluj-Napoca, Romania: Microwave Design in Space Application, designing Entrepreneurial Journey
- Horn and Reflector Antenna Design from Down Under – Limoges, France
 - Antenna projects for SATCOM, radio astronomy and remote sensing
- CARLA Camp Bordeaux, France – Professional opportunities in Photonics

Certifications

- Microwave engineering and antennas – Eindhoven University of Technology
- RF and millimeter-Wave Circuit Design – Eindhoven University of Technology
- 5G for Everyone – Qualcomm Wireless Academy
- 5G Network Fundamentals – Institut Mines-Télécom
- 4G Network Fundamentals – Institut Mines-Télécom
- Machine Learning – Stanford University
- Diploma in Python Programming, and Project Management – Alison Academy
- Huawei HCIA Routing and Switching, Security, and WLAN, CCNA Routing and Switching

Extra-Curricular activities

- Active member of European Microwave Association (EuMA)
- Teaching physics and maths online at RG International worldwide tutor
- President of ESEE (Ethiopian Society of Electrical Engineers) student association
- Active member of ESSS (Ethiopian Space Science Society) and organizer of annual conferences

Awards and Honors

- Erasmus+, Erasmus Mundus Joint Master Scholarship (EUR 49,000)
- GKS global Korean Scholarship for research exchange program
- Gold Medalist: OUTSTANDING STUDENT OF THE YEAR, Addis Ababa University (AAU)
- Best Bachelor Thesis Award, Addis Ababa University (AAU)