Sasmita K G

+918148231809
kovisasmita@gmail.com

CAREER OBJECTIVE

Third-year Electronics and Instrumentation Engineering student with a minor in AI & ML, eager to apply my expertise in electronic circuits and systems. Seeking collaborative opportunities to drive technological innovation.

KEY COMPETENCIES

Electronics Design and Implementation: Skills to identify and resolve technical issues

Strong understanding of Instrumentation principles

Skilled in applying AI and ML algorithms to enhance traditional instrumentation and control systems

EDUCATIONAL QUALIFICATION

Bachelor of Technology in Electronics and Instrumentation Engineering — **Oct 2022 - June 2026**
Minor specialization : Artificial Intelligence & Machine Learning

SASTRA Deemed to be University, Thanjavur
CGPA: 8.96/10

High School — **Jan 2020 - Aug 2022**

Velammal Bodhi Campus, Madurai
12th : 83.6%
10th : 95.6%

INTERNSHIP EXPERIENCE

- **Research Intern** , Solid State Physics Laboratory , DRDO : Single photon detection for MIMO underwater wireless optical communication enabled by arrayed LEDs and SiPM — **Dec 2024 - Jan 2025**
- **Machine learning Intern**, IIT Roorkee : Working on EEG-based emotion recognition using TQWT, Reproducing a research paper's methodology for feature extraction & classification, Implementing ML models for EEG signal analysis and emotion detection. — **Dec 2024 - Present**
- **Embedded system Intern**, Emertxe : Smart Microwave System – Developed embedded firmware for automated cooking control, temperature sensing, and safety features and Automated Washing Machine Controller — **Jan 2025 - Feb 2025**

PROJECT EXPERIENCE

- Currently working on Pattern Recognition of traffic signs and Image Processing using Vision Transformer models and AI detection tools.
- Hardware EEG project and compilation of data using extensible AI
- EEG based emotion recognition using TQWT
- Solar Array Monitoring and Damage detection using LabVIEW
- Modelling and analysis of SiPM in multi environment Optical Communication
- Smart Tomato Ripeness Detection system using Fuzzy Logic
- Model Predictive Controller with different RNN models
- Fake News detection using different Neural Network models

SKILLS

- Electronics Design: Circuit design, PCB layout-KiCad, Multisim
- Digital System Design: Logic design, Verilog and circuit analysis
- AI and Machine Learning: Pattern recognition, Vision Transformers, Neural Networks, and Data analysis
- Programming Languages: Python, C , C++,SQL, and MATLAB

WEBINAR/WORKSHOPS ATTENDED

- Signal Processing in Physical Layer of Futuristic Wireless Communication(Thiagarajar College of Engineering)
- Digital Design Prototyping using FPGA(SASTRA Deemed to be University)
- Basic web development of Cred website

AREAS OF INTEREST

- Optoelectronics
- Digital system design
- Electronic Circuits
- Electrical machines and drives
- Machine learning algorithms
- Data structures and algorithms
- Mental Ability
- Signal and Image processing
- Automotive electronics

ACHIEVEMENTS

Core:

- Constructively involved in developing a Pattern recognition system improving detection accuracy by 15%
- Top performer in Electronics and Instrumentation Department
- Participated in AI and ML learning hackathon
- Participated in Circuit Building Contests
- Won first place in Component hunt- circuit building contest

Non Core:

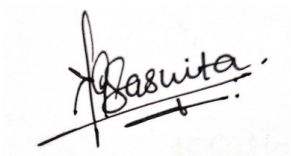
- Coordinator of ECell Artze
- Social contributor in Blood cancer awareness and no litter campaign
- Script writing for educational short films
- Bharatnatyam (Intermediate level)
- Interschool competition winner in Paper crafts
- INTACH magazine starer

PERSONAL INFORMATION

Alternate Email Address: 126006042@sastra.ac.in
LinkedIn: https://www.linkedin.com/in/sasmita-k-g-a31000286
Address: 118A, Lakshmi street, Old Meenakshi Nagar, Madurai, Tamilnadu
Languages: English, Hindi, Tamil, Sourashtra

DECLARATION

I hereby declare that the information provided in this resume is true and accurate to the best of my knowledge and belief.



[K G SASMITA]
29 April 2025
