

Ameenu Rahman

ameenu198@gmail.com | +91- 8129971724 | [Linkedin](#)

4+ years of experience in embedded systems design and product development. Proven ability to design and develop medical devices, analytical devices, and wearables from scratch. Enthusiastic about R&D, problem-solving, and troubleshooting

PROFESSIONAL EXPERIENCE

Senior Electronics Engineer, Tismo Technology Solutions (P) Ltd, Bengaluru	May 2022 -Present
<ul style="list-style-type: none">Led the design and development of complex circuits from concept to realization, ensuring successful integration with mechanical and regulatory requirements.Consistently exceeded client expectations by delivering high-quality analytical and medical projects on time and within budgetUtilized strong analytical and problem-solving skills to identify and fix the root causes of EMC regulation test failuresTranslated user needs to engineering requirements and electronic hardware design.Proficient in simulation using LTspice, Pspice, TI Tina and Matlab Tools for sensitive circuits & Power electronics designSkilled in PCB Schematic capture and Layout design especially in ECAD tools such as Altium Designer, Eagle, Allegro and KicadPerformed DFMEA & Documentation, EMI/EMC design and analyze using error budget, performance analysis and sensitive analysisKey Projects:<ol style="list-style-type: none">Smart Potentiometer Probe:DXU18_TransmitterFCE Controller	
Project Engineer, Healthcare Technology Innovation Center, IIT Madras	Jan 2020 - May 2022
<ul style="list-style-type: none">Designed and developed electronic circuits, including schematics and layouts, using Altium DesignerDeveloped firmware for microcontrollers and ASICs used in embedded systems, such as FX3, MSP430, STM32, and NRF52 BLEs.Experienced in Power sequencing and application circuit development for highly sensitive and high speed boards consisting of FPGAs and high speed interfaces.Hardware troubleshooting/ Making Automated testing setup using various DAQs, PXIs by LabVIEW ProgrammingProduct development for DFM/DFA purposes and documentations.Experienced in high speed board design, schematic capture, layout reviews, test and integration, and maintaining hardware through lifecycle.Key Projects:<ol style="list-style-type: none">Ureteroscope medical deviceBronchoscope medical deviceNextgen Endoscopy medical device	
Project Associate, Healthcare Technology Innovation Center, IIT Madras	Jul 2019 - Dec 2019
<ul style="list-style-type: none">Developed 'ECG Patch", a wearable compact product using BLE MCU.LabVIEW programming to visualize the data which has been sent over BLE, DAQ and PXIsMATLAB simulations.Key Projects:<ol style="list-style-type: none">ECG Patch wearable deviceRespiratory Rate Monitoring Mask	

EDUCATION

Year	Degree	Institute	CGPA/%
2015 - 19	Electrical & Electronics Eng, Bachelor of Engineering	College of Engineering Trivandrum	7.42
2012 - 14	12th Grade - HSS	HMY HS School Manjeri, Kerala	94.2%
2011 - 12	10th Grade - SSLC	Govt. Technical High School Manjeri, Kerala	95%

PERSONAL PROJECTS

- 'Breathing Rate Monitor', a wearable medical mask for measuring breathing rate for analyzing with ECG pattern
- 'Energy Harvesting from Railway track vibration by using Piezoelectric sensors'
- 'Compact pH sensor for waste management'

CERTIFICATIONS & COURSES

- Analog and Digital Circuits from IIT Madras Jun - Nov 2021
- [Verilog for an FPGA Engineer with Xilinx Vivado design Suite](#) May - Sep 2023
- FPGA Embedded Design- Verilog

ADDITIONAL EXPERIENCES & AWARDS

- Volunteer, House Wiring as part of Rehabilitation activities in the flood affected areas May- Sep 2018
- Awarded with Rajya Puraskar by hon'ble Governor of Kerala Mar 2010

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SKILLS

- **Technical Skills:** Circuit design (Analog, Digital & Mixed), Analytical & Troubleshooting skill, Power Electronics, Electronic Hardware Design, EMC Troubleshooting & Design, Embedded System, PCB Design, Embedded C, Microcontroller and FPGA, Documentations, Analytical and system thinking, Quick learning of new technologies, Leadership and presentation skills. Hands-on experience with laboratory equipment such as Oscilloscope, Spectrum Analyzer, AC/DC Sources, DSO, CRO, Multimeter, EMC equipment & etc..
- **Tools:** Altium, Eagle, LT Spice, TI Tina, LabVIEW, Proteus and Matlab
- **Languages:** English, Malayalam and Tamil

INTERESTS

- Curious and eager to learn new things, both within and outside of the field of technology
- I enjoy traveling and learning about different cultures and perspectives