Emil B. Donkov Meng MIET

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Master degree in engineering – electronics design, Technical University in Bulgaria

Professional history:

1998 – 2007
Design Engineer in various companies in Bulgaria

2007 – 2008
Electronics Design Engineer, Home Automation Specialists in London

2008 – 2013
Electronics Design and System Engineer, Marine Electronics Company in Stoke on Trent

2013 – 2014
Electronics Design Engineer, Rolls Royce – Jet Engine controllers Specialists in Birmingham

2014 – 2015
Electronics Design Engineer, Automated Electronics Test Equipment Company in Macclesfield

2015 – 2018
Electronics Design Engineer, R&D, Hardness Test Equipment Specialists in Birmingham

2018 –
Electronics Design Engineer, Aerospace / Defence company, Wolverhamptorn

Professional Skills

Electronics Design:

Analogue and Digital Circuits design, Altium, EasyPC, gEDA, Protheus, KiCad, EMC compliance, circuit simulation using LTSpice, Tina, Saber, Multisim, Simetrix, signal analysis, mathematical models and lookup tables using SciLab, FMEA, Stress Analysis, Thermal management, Electronic components selection (BOM), signal interfaces – LVDT, Thermocouples, Load Cells (strain gauges), Inductive, Capacitive, Hall, Optical sensors, position encoders, power electronics drives, SMPS and Linear PS, Control Systems design (PID controller algorithms), Bus protocols and interfaces – RS232, RS422, RS485, I2C, SPI, CAN, USB, Ethernet, Wireless – WiFi, LoRa WAN, BlueTooth, ZigBee, RFID, Inductive Power Transfer, LED, motor control – stepper, DC, BLDC, AC, actuators, TFT/OLED displays, Joystic, touch screen – capacitive and resistive...

Hardware:

PCB design using the latest technologies: blind and buried vias, multilayer (18 layers) design, high components density, signal integrity, building prototypes and test benches, electrical machine wiring design, industrial control systems.

Firmware/HDL:

FPGA and CPLD based ASIC design using VHDL and digital circuits (Xilinx EDA 14.7), microcontroller-based designs based on Atmel, Microchip, Silicon Lab, NXP microcontrollers, firmware design using Microchip Assembler, Intel 8051 assembler, C language.

Software:

Test software written in Java, Python and C (gcc) for Windows and Linux.

Project Management:

Entire Project development from the idea to the product release, requirements capture/definition (Doors), design strategy, plan, time schedule and budget management.

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