VIJAYA RAGAVAN.R Primary Phone: 09994358202,

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**Summary:**

I am an Electric system design Engineer having 4 + yrs of Experience with Design, and Completed M.Tech in VLSI Design. Looking for a job in Design Engineer.

**Skill sets:**

**Engineering and Management**

* Analog and Digital signal circuit design, Power devices, supplies and DC-DC, Fly back, Buck, Boost converters, protection systems, Circuit Simulation and calculation, Component selection, Layout and PCB design with design plan and Good understanding with Sensing Technology.
* Experience on designing of Functional Test Station for testing in manufacturing process and good understanding with mechanical fixtures for product designs. (JIGS and Fixtures)
* To secure a challenging career in the design & implementation of VLSI circuits leveraging a strong background in electronics.

**Software**

* Analysis Tools – any SPICE program (LTspice, PSPICE)
* CAD tools – any PCB tools (OrCAD, Model sim, Xilinx ISE and Altera quartus II )
* Matlab,c

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| **Career profile** | | | |
| **Organization** | **Position** | | **Year** |
| **Iskraemeco Regent Ltd.,**  [**www.iskraemeco.si**](http://www.iskraemeco.si) | **Engineer – R&D Operations (Static Energy Metering)**  Design, Application and Production Process | | **Apr 2009 – May 2011** |
| **Engineer – Graduate Engineer Trainee**  **(Static Energy Metering)** | | **March 2008 – Apr 2009** |
| **Educational Qualification** | | | |
| **Masters of Technology (M.Tech)**  VLSI Design with 7.6 CGPA | | Kalasalingam University, Krishnankovil | 2011-2013 |
| **Bachelor of Engineering (BE)**  Electrical and Electronics Engineering  With 66% | | Pavendar bharathidasan college of engineering and technology | 2004-2007 |
| **Diploma in Electrical and Electronics(DEEE)**  With 76% | | Arulimigu chandikeswarar polytechnic college , coimbatore | 2004 |
| 10th Std. with 76% | | Rayer Kalvi Nilayam , Avinashi | 2000 |

**Technical Expertise:**

* Packages : Auto-CAD, Or-cad PSPICE-Design, ADS 2009.
* Strong understanding of CMOS circuit and logic design principles.
* FPGA implementation for digital circuits ALTERA kit.
* Good in Hardware Description Language (HDL) Linear Test bench Programming.

**Current Project:**

* **IMPLEMENTATION OF INFINI BAND FOR 1X TRANCEVIER(in M.tech)**

InfiniBand™ – a play on the words “infinite bandwidth” – is an advanced input/output (I/O) architecture designed to increase the communication speed between CPUs, devices within servers and subsystems located throughout a network. Unlike any previous I/O architecture, InfiniBand extends its feature set outside the server to devices on the network.

**Track Records:**

**Energy Meter system design and Support**  - **Iskraemeco**

*Customer: India Market | Team size: 3*

***Responsibility:***

* Preparing feasibility report for new market requirement and tenders. Interacting with sales team for the same.
* Preparing design change note, working with Circuit design for new features, BoM, Preparing Prototype samples, Conducting Functional test, Acceptance test, HV, and other special test, also preparing for Environmental test like EMC/EMI correction, ESD test and etc.
* Preparing change in mechanical design and modifying the design and interacting with mechanical team, Nameplate design. Interacting with quality team for analysis, Support for in- house assembly and production, solving issue facing in design for production.

***Technical stuff:***

* Power supply design and distribution, control circuit for energy metering for new design, Teridian – 71M6xxx, TI – MSP430Fxxxx, Tamper condition section, CT & specification.
* IR communication circuit design. (IEC62053-21), Data acquisition using VB.net from meter (Created UI).
* PCB design and verification for the new design and testing, modifying changes in PCB and mechanical outlines.
* Preparing and modifying Test JIGS and FIXTURES for Function test in PCB, changing the loading points in User interface (VB.net), design for change the Location of POGO pins for new design PCB’s and interacting with Tools room.
* **Energy meter testing** for Prototype and approval: Functional Testing, Acceptance Test, Standard Test for Metering (IS13779), special testing – Prototype.

Standard Used: IS13779, 62053-21.

**Automatic Test Station for Energy Meter PCB (FCT – Test JIG and Fixture)** - **Iskraemeco**

*Customer: Contract manufacturer and in-house production | Team size: 2*

***Responsibility:***

* Design an Automatic Test station - for PCB functional test (Jigs and Fixture) coming from Line under production. Developing a Test setup with Test points using a Pogopins for Test fixture with a user interface using VB.net.

***Technical competency:*** Analog and Digital system:

* Prepared functional test plan.
* Control Circuit design, Shift Registers to communicate with reference board to Target PC
* Firmware loading –automatically, Relay logics, Power supply unit, Shift registers enhancement
* Power supply unit design and PCB design for the Full system.
* Created control software and database connectivity for recording using VB.net
* Created dimension for Pogo pins from the PCB for Jigs and Fixture development using AutoCAD
* Fixture design for PCB seating with Test JIG and interacting with Tool room shop for design and interacting with Tool designers for the spring loading and PCB seating mechanical arrangements.

***Software Used:***

* Pspice, Orcad, AutoCAD.

**Automatic Anti-Tamper and Load test for Energy Meter (FCT– Test JIG and Fixture)**

- **Iskraemeco**

*Customer: In-house Production unit | Team size: 1*

***Responsibility:***

* Design an Automatic Test station for Anti-Tamper and Load Test (Jigs and Fixture) for Energy meter after production and Inspection. Taking the test conditions as per standard and created a UI to control the load automatically.

***Technical competency:*** Analog and Digital system:

* Prepared test plan and tamper conditions for the meter as per IS13779 standard. Control Circuit design, Shift Registers to communicate with reference board to Target PC using Shift Register. Relay logics, Power supply unit, wiring design for the setup.
* Created control software and database connectivity for recording using VB.net
* Fixture design for PCB seating with Test JIG and interacting with Tool room shop for design and interacting with Tool designers for the spring loading and PCB seating mechanical arrangements.

***Software Used:***

* Pspice, Orcad, AutoCAD.

**BATS – Barcode Accessing and Testing Software**  - **Iskraemeco**

*Customer: In-house Production unit | Team size: 1*

***Responsibility:***

* Designing Barcode Accessing and testing software (BATS). This is to detect the repeated serial number in the production line (Conveyer) which is on the top cover and in the Firmware. Finally this system was taken and approved by **ISKRAEMECO Production Process.**

***Technical competency:***

* Barcode Protocol,
* Barcode Handheld terminal interfaced with PC using RS232.
* Created an UI using VB.net with MS ACCESS database Connectivity.

**~35kV Arc Generator – Test Setup**  - **Iskraemeco**

*Customer: In-house Production unit | Team size: 2*

***Responsibility:***

* Need to develop ~35kV Generator for Energy meter testing.

***Technical competency:***

* Line out Transformer, Power MOSFET’s, etc., EMI correction, filters for the test in the Meter circuit and involved in enclosure modification team for the same. PCB design.

Standard: IS13779

**Maintenance projects:**

**-Iskraemeco**

* Interacting with production team for new design in process.
* AC and DC High speed pulse test setup for testing Energy meter for Production process
* Conducting various special tests such as HV, drop test, pendulum test, EMI and EMC correction, surge voltage test as per standard for **PROTO TYPE SAMPLE** and test report.
* Involved in mechanical testing for Prototype
* Calibration of standard meters in Production unit.
* Worked with Energy meter Hardware design team and board bring up.
* Design for Approx. 35 kV generator setup for Meter testing as per IS standard.

**Co-Curricular Activities:**

* Participated in workshop “**Advanced FPGA Design** “organized by Enixs Systems held at Kalasalingam University.
* Published a paper on **“implementation of infiniband for 1x transceiver”** at international journal for computer application”
* Presented a paper on **“High speed Link Layer of Infiniband for 2.5gbps Transcevier”** at international conference on innovative trends in computing technology.
* Presented a paper on **“A 2.5Gbps Transceiver of Infiniband Link Layer”** atinternational conference on science and innovative engineering.
* Participated in **“National Conference on VLSI, Embedded and Communication Systems”** held at Kalsalingam University

**Personal data**

Age : 27

Sex : Male.

Nationality : Indian.

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Language Known : English, Telugu, Tamil.

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