

PROFILE



NAME: Pragadheeswaran Venkat , M TECH BIOMEDICAL

ENTREPRENEUR & FOUNDER

ARIES BIOMED TECHNOLOGY

May 2015 – Present (7.3 years)Coimbatore , India

Design and Product development solution

ABT product development firm specializing in design and development of medical and healthcare products . Our capabilities include design investigation, research and concept development, rapid prototyping, technology transfer and manufacturing.

Biomedical R&D Head

Pricol Limited

March 2006 – April 2009 (3 years 2 months)

BIOMEDICAL DESIGN

Biomedical Design engineer

premier Evolvics

February 2004 – March 2004 (2 months)

WWW.ARIESBIOMED.COM

EDUCATION

M.Tech in Biomedical Instrumentation and Signal Processing (2002-2004)

SASTRA Deemed University, Thanjavur, Tamil Nadu, India

B.E in Electronics & communication Engineering (1998-2001)

Bharathidhasan University, Trichy, Tamil Nadu, India

D.E.C.E Diploma Electronics & Communication (1995-1998)

WORK EXPERIENCE

SERVICE ENGINEER Biomedical

Company : *PHOENIX MEDICAL SYSTEMS -CHENNAI*

Duration: *From August 2001-June 2002*

Company Disc:

Phoenix medical system is a biomedical products company, doing product development (R&D) on Neonatal care equipment's its Manufacturing unit at Chennai.

Job involves

Installation and commissioning of equipment's such as Baby Incubator, Neonatal Warmers Delivery beds throughout South India.

Field Trials at Hospitals where ever new products installed.

Service of all products where ever it is installed.

Maintain ISO medical documents for service domain.

TECHNICAL SUPPORT ENGINEER IN R&D DEPT

Company: Phoenix Medical Systems.

Duration: From July 2004 – Feb 2005 (after finishing my M-tech in Biomedical)

Job involves

New Product development in infant care systems, which I developed Apnea Monitor and LED photo Therapy Unit for Neonate.

Existing product development

Validation –Electronics circuits PCB's for EMI& EMC compatibility.

RESEARCH AND DEVELOPMENT ENGINEER

Company: Premier Evolvics Pvt. Ltd. – Coimbatore – INDIA

Duration: From March 2005 -July 2006

Company Disc:

Premier Evolvics is a world leaders in textile lab equipments having branches including china ,having big 200 members R&D group and own manufacturing unit at India and China.

Development of Wearable ECG system:

We developed an ECG system with Bluetooth technology which acquires signals from fabric textile sensor and transmit. My part involves development of Electronics hardware for ECG system, Algorithm development for noise reduction of ecg data's and bluetooth application development.

Development of online Yarn clearer system:

Product involves capacitance and optical sensor for online yarn clearing I am working along with team of 3 for development of sensor circuitry module for yarn color and Mass Contamination detection, the product is successfully finished and it's trails and line in production.

RESEARCH AND DEVELOPMENT ENGINEER –Asst. Manager

Company: Pricol Medical systems Pvt. Ltd. – Coimbatore – INDIA

Duration: from July 2006 till date.

Company Disc:

Pricol medical is a newly started medical product development company started by automotive giant pricol automotive limited in the year 2008.

Development of ICU ventilator:

with the very low maintenance and running cost. I worked with complete electronics systems designs involves backup power supply , Pneumatic control system , Display etc., and CB certification process. The machine is successfully running in the hospitals all over India. more than 2000 patients veined off .

Development of Medical air compressor and Respiratory humidifier:

Product involves electronics controlled medical air compressor for Ventilators .We achieved the dew point depression of 10°C less to the atmosphere, which no body has done it currently in India. The product is in field trail will be released sep'09.

Development of Respiratory humidifier:

Product involves heater based respiratory humidifier goes along with the Ventilator which produces humidified air with set temperature .The control electronics designed to control the air temperature with closed loop system and without closed loop system(non servo) .I developed the complete electronics and sensor for the system, Product is in testing phase yet to release.

professional strengths :

- _ Circuit Design Analog and Mixed signal digital.
- _ Good in Sensor and Signal conditioning front end designing.
- _ Worked with Capacitance sensor, Thermister design, ECG, EEG Electrode design, Optical sensor and Pressure sensors and its Analog front end designs.
- _ Biomedical calculations and concept development.
- _ Developed Algorithm for real time ECG analysis in Firmware.
- _ Good in **EMIEMC** , **RoHS** and Electronics Thermal management
- _ Good in Spice simulators.[PSPICE,LTSPICE,MULTISIM]
- _ Mostly worked with Electronics workbench and **LT SPICE**
- _ Power designing and calculations.
- _ Digital Filter design for real time process.
- _ Real time software filters implemented using **MATLAB** and **C**.
- _ MATLAB simulations.

*_ **ISO 13485** documentation for **R&D** and **MEDICAL**.*

_ I worked with complete CB certification process of ventilator ,so I have full confident of solving any problems related with certifying of medical equipment.

*_ Worked with Ti and Analog products **ADuC** microconverters, **PIC,MSP** and **ATMEL**.*