

# **RESUME**

**Noyal Mary James**  
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## **Career Objective:**

Seeking challenging jobs, where I can give my best performance and skills for improvement of organization and self by learning new skills and enhancing my knowledge.

## **Career Summary**

- **IHRD College of Applied Electronics**  
Designation : Assistant Professor  
Responsibilities: Assistant Professor in Electronics and communication.  
Placement Coordinator.  
Duration : From 10-06-2015 to 30-09-2015
- **Smile Electronics, Bangalore, India**  
Designation : Design Engineer  
Responsibilities: Planning and co-ordination of project requirements.  
PCB and Stencil designing, clearance of designs.  
Duration : From 5-6-2014 to 1-06-2015

## **Demonstrated Skills & Abilities**

### **Technical Skills**

- Software Tools – High Performance Embedded Workshop (HEW), Keil IDE, Kicad (PCB).
- Programming Languages - C, EMBEDDED C, VHDL, Verilog
- Assembly language – ARM, 8051, Renesas R8C

### **Electronics & Electrical Skills**

- Proficient in analog/digital electronics circuits and trouble shooting
- Experience of basic electrical wiring
- Read & interpret electrical drawing & diagrams
- Electrical circuit design and trouble shooting

### **Computer Based Skills**

- Computer literate in Microsoft excel, word and power point for windows
- Technical documentation
- Hardware trouble shooting and Maintenance of Desktops & Computer peripherals

### **General Skills**

- Good in Analyzing & Understanding Requirements.
- Good Interpersonal skills, Commitment, Result oriented Hardworking and Zeal to learn new Technologies and Undertake Challenging Tasks.
- An Effective team player with abilities to work collaboratively with Team, Analysts and Client representatives.

## **Education**

### **M.TECH : VLSI AND EMBEDDED SYSTEM**

M G University, Kottayam, ST Joseph's College of Engineering and Technology, Palai  
2011 - 2014, CGPA : 7.8 ,Aggregate Percentage: 70%

### **B.TECH : Electronics & Communication Engineering**

M G University, Mount Zion Engineering College, Pathanamthitta  
2007-2011, Aggregate Percentage: 63%

### **H.S.C : Science**

Govt. Higher secondary school, Manathana, Kerala.  
March 2007, Aggregate Percentage: 79%

### **S.S.L.C : St. John Baptist EMHSS, Kerala.**

March 2005, Aggregate Percentage: 89%



## **Academic Project**

### **❖ LINEAR CONVOLUTION USING ANCIENT MATHEMATICS AND MODIFIED CARRY-SAVE ADDER**

Course : M-tech  
Language used : VHDL

This project presents a simple, fast and accurate method for computing convolution of two finite length sequences. Here we use a multiplier based on an algorithm Urdhva Tiryagbhyam of ancient Indian Vedic Mathematics.

Achievement: Learned VHDL

### **❖ THREE DIMENSIONAL AND TOUCHSCREEN BASED PASSWORDS FOR MORE SECURE AUTHENTICATION WITH WIRELESS COMMUNICATION**

Course :M-tech  
Language used : EMBEDDED C

This paper presents an excellent authentication system. The system is designed in such a way that two levels of security is implemented. First level uses an accelerometer to provide 3 dimensional movement of data. And the next level uses a touch screen for pattern selection.

Achievement: Learned Renesas microcontroller programming, Kicad

### **❖ PASSIVE OPTICAL PERSON DETECTOR**

Course :B-tech  
Language used : EMBEDDED C

It is a sensor that introduces a simpler way through which we can use ambient lighting and detect changes in illumination. Rapid changes in illumination are greeted with an acoustic alarm. Phototransistor BC547B is used.

Achievement: Embedded C

### ❖ SMART SHOPPING TROLLEY

Course :B-tech  
Language used : EMBEDDED C  
Tool used : Keil 4 Microvision

Project facilitates easy & efficient shopping. It provides a way for consumers to make health-conscious decision and cut time spent shopping. It uses Zigbee protocol and was implemented in ARM(LPC 2138).

Achievement: ARM, Embedded C

### Academic Seminar

- ❖ **Light Pen-An Innovative Tool:** A Light pen is a computer input device in the form of a light sensitive wand used in conjunction with a computer's CRT display. It allows the user to point to displayed objects or draw on the screen in a similar way to a touch screen but with greater positional accuracy
- ❖ **Study on RISC PROCESSORS:** RISC can be described as philosophy with three basic levels. All instructions will be executed in a single cycle. Memory will only be accessed by load and store instructions. All execution units will be hardwired with no micro coding.
- ❖ **Speedy Convolution using Vedic Mathematics:** The core computing process in discrete linear convolution is a multiplication routine .The paper presents a new approach for convolution which uses Vedic multiplier. The proposed design provides high speed, low-power, low area compared to conventional methods.

### Papers Presented

- ❖ Noyal Mary James, Anuja George, Nelsa Sebastian, **“Performance Analysis of Digital Convolver Using Modified Carry Save Adder”**, IJARCCCE, Vol. 3, Issue 11, November 2014
- ❖ Noyal Mary James, RincyMerinVarkey, Rose George Kunthara,”**Gesture and Touch Screen based password for more secure authentication with wireless communication”**,IJIREEEICE ,Volume 1,Issue 9,December 2013

### Training and Certification

- Advanced Diploma in Embedded System Design from Neona Embedded Labz,Cochin
- Summer Internship Program, Texas Instruments ES(TI MSP 430) &RTOS, Aug 9-13, 2012
- IIT Bombay – Ekalavya / MHRD / ISTE Ten day workshop on “Research Methodology”, A-View Mechanism, 25<sup>th</sup> June to 4<sup>th</sup> July 2012
- IIT Bombay – Ekalavya / MHRD / ISTE Two day workshop on “Writing Effective Conference Papers”, A-View Mechanism, 18<sup>th</sup> and 19<sup>th</sup> Feb 2012

## **References**

1. **Prof. Madhukumar.S.**, Professor & Head / Electronics and Communication, St. Josephs College of Engineering & Technology, Palai, Kottayam, [madlekarthi@gmail.com](mailto:madlekarthi@gmail.com), Mobile : +91 9495431623.
2. **Prof.Dr.B.Priestly Shan.**, Professor – PG Studies/ Electronics and Communication, St. Josephs College of Engineering & Technology, Palai, Kottayam, [priestlyshan@gmail.com](mailto:priestlyshan@gmail.com), Mobile : +91 8086304720

## **Declaration**

I hereby declare that the information furnished above is true to the best of my knowledge.

Place: Muscat

Date : 01.02.2016.

Noyal Mary James