



## Career Summary

Versatile E&I professional with 3 years' experience in conceptualization, development and maintenance of ELV products and solutions. Expertise in embedded system, power supplies and automation. Diverse knowledge in instrumentation.

## Experience

<b>Embedded System Engineer</b>	MN Electronics, Bangalore, India	June 2015 - Dec 2015
<ul style="list-style-type: none"><li>ELV Electronic hardware design and development.</li><li>Troubleshooting of ELV system.</li><li>Design and testing of PCB.</li><li>Supervised prototyping and PCB assembly.</li></ul>		
<b>Project Engineer</b>	EMBIT Technologies, Bangalore, India	Nov 2013 - May 2015
<ul style="list-style-type: none"><li>Led multiple embedded system projects like SBC, DPM, DL, ePM etc.,</li><li>Performed Research and Development in electronic testing instruments for automotive industries.</li><li>Firmware development of 8-bit Micro-controller. Programmed PLC's.</li><li>Prepared and reviewed technical documents.</li><li>Managed product installation team.</li><li>Delivered technical support to customers.</li></ul>		
<b>Graduate Engineer Trainee</b>	MN Electronics, Bangalore, India	June 2012 - Feb 2013
<ul style="list-style-type: none"><li>Design and developed low voltage power supplies (Linear, SMPS).</li><li>Designed 2-layer PCB. BOM generation and procurement.</li></ul>		

## Technical Skills

Hardware	: ELV Electronics	Power supplies	PCB design		
Programming	: Embedded-C	PLC & SCADA	Java		
Tools	: Arduino	Cadence OrCAD	Proteus	MPLAB	MS Office
Protocols	: I2C, SPI	MOD, CAN	Zigbee	TCP/IP	
Operating Systems	: Windows	Linux			

## Educational Qualifications

PG Diploma in Automation and SCADA	CDAC, Bangalore	GPA: 6.90	Feb 2013 - Aug 2013
B.E in Electronics and Instrumentation	Anna University, Chennai	GPA: 7.49	Sep 2008 - April 2012
HSC in Science	TN State Board, Chennai	GPA: 8.40	March 2008
SSC in Science	TN State Board, Chennai	GPA: 9.06	March 2006

## Projects

<b>Ad-FIRE ALARM SYSTEM with GSM</b>	MN Electronics, Bangalore	Sep 2015 – Dec 2015
Fire detection system with GSM for remote areas. Configured with various detectors like Smoke, Thermal, Gas etc.,. Serial communication(RS-485) for event logging.		
<ul style="list-style-type: none"><li>Prototyping and real-time field testing of FAS. Hardware design and development.</li><li>Programmed firmware of Arduino.</li></ul>		
	Tools – OrCAD, Proteus, Arduino, Terminal	

## ACCESS CONTROL SYSTEM-RFID+BIOMETRIC

June 2015 - Aug 2015

User configurable ACS, RFID+Fingerprint authorization with RS-232. Optional PIR sensor for automatic door control.

- Product development of ACS. Installation and maintenance.
- Programmed firmware of 8-bit Micro-controller. Tools - Proteus, Arduino, Terminal

## SMART BATTERY CHARGER

EMBIT Technologies, Bangalore

Sep 2014 - Jan 2015

Alterable Voltage & Current charger with USB data logging facility. Serial communication(RS-232) for data acquisition.

- Design and developed electronic hardware of power supply, USB Data Logger.
- Integration of DPM & DL with charger. Tools - OrCAD, Proteus, PI Expert

## BLE v.4.0 UNIVERSAL CONVERTER

Sep 2014 - Nov 2014

USB, Serial(RS-232/RS-485) to Blue-tooth converter for wireless automation in automotive.

- Prototyping of universal converter using Microchip's RN4020.
- Programmed firmware of 8-bit PIC. Tools - Proteus, Mikro-C, Terminal

## DIGITAL PANEL METER

June 2014 - Aug 2014

4 ½ digit four channel DPM powered with ICL7135 ADC and serial communication(RS-232/RS-485).

- Design and developed electronic hardware.
- Programmed firmware of Micro-controller for initial testing. Tools - Proteus, Arduino

## ELECTRONIC POWER METER

April 2014 - May 2014

Class-1 Digital power meter for single phase and three phase supplies with MODBUS.

- Designed 2-layer PCB of measurement card with DSP chip.
- OrCAD to Proteus design migration. Tools - OrCAD, Proteus, PI Expert

## EPM MOBILE ROBOT

JJCET, Trichy

Nov 2011 - April 2012

Zigbee based UGV for remote sensing of Temperature, Gas, Light Intensity and Humidity. USAR applications.

- Design and developed electronic hardware with 8-bit PIC.
- Configured & calibrated various sensors. Tools - Proteus, CCS-C, Mikro-C, HyperTerminal

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## Technical Certifications

- Pneumatic & Electro Pneumatic Control Systems. Nov 2012
- Process Automation using PLC & SCADA/HMI. Oct 2012
- Professional in Electronic Design Automation. March 2012
- Post Diploma in Hardware Technology. Nov 2010
- In plant Training at NLC-Thermal power station. Dec 2009
- Higher Diploma in Computer Applications. June 2007

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## Achievements & Participation's

- Volunteer of National Service Scheme July 2006 - Feb 2010
- Regional level winner of Chutti QuizWiz-05 Nov 2004

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## Personal Profile

- DOB - 4<sup>th</sup> March 1990
- Passport Number - L6429016
- VISA Status - Visit valid till 10<sup>th</sup> March 2016
- Website - in.linkedin.com/in/gpkaran
- Nationality - Indian
- Languages Known - Tamil, English
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