

Kishore K. Chander Mohan

Sunnyvale, CA, USA.

Email: coolkishore@yahoo.com

➤ Objective:

To Design, Develop and Implement challenging Real Time Embedded Application and System software projects.

➤ Experience Summary:

- Over **5-years** experience in development of Firmware, Device Drivers, Application & System software and Field level problem solutions.
- Excellent communication skills with good international experience having worked with fortune 100 clients like Fujitsu, NEC, Sony, Mitsubishi and Philips in Japan, Taiwan & USA.

Genesis Microchip, CA, USA. <http://www.genesis-microchip.com>

Field Applications Engineer, Dec 2000 to Present.

- Makers of Flat Panel Display processors used in LCD monitors and TV products.
- Currently working with **FLI2300, gm60XX, gm1601, JagASM, FLI2200**.
- Job profile involved support and development effort in both hardware and firmware from concept to production. First contact for all technical issues.
- Current customers include **Sony, Viewsonic, Philips and Mitsubishi** among others.

Encore Software Ltd, Bangalore, India. <http://www.ncorettech.com>

Sr. Embedded Engineer, April 2000 to Dec 2000.

- Developed system software for networking projects.
- WebSat NDIS driver, Bluetooth preliminary Host side stacks in Linux, Stratus C++ PCI device simulator.

Sage Design Systems, Bangalore, India. <http://www.sageinc.com>

Field Applications Engineer (Japan), August 1999 to April 2000.

- Makers of Flat Panel Display processors used in LCD monitors.
- Worked on Sage's Cheetah 3, Cheetah 4 Display controller ASIC.
- Job profile involved support and development effort in both hardware and firmware from concept to production.
- Worked in **Japan** with **Fujitsu** and **NEC**.

Systems Aids, Bangalore, India.

Software Engineer, June 1998 to August 1999.

- Developed customized commercial real time application, system and embedded software.
- Projects required me to develop **Device Drivers on MS-DOS and Windows platform** for Industrial PC and Data acquisition cards,
- Firmware for 68HC711E9, 8032 and 8051 Micro controllers.

➤ Skill Set:

Programming Languages:

Assembly, C, C++.

Operating Systems:

Linux, Windows, MS-DOS.

Tools:

Paradigm C++, 5.0 for 80186 Microcontroller.

Keil and IAR Cross Compiler's for 8031 / 8051, 68HC711E9 Micro controllers.

Visual C++, Windows DDK.

Turbo C 3.0, MASM 6.11, TASM 5.0.

Turbo Debugger, ups, CVS, VSS.

Kishore K. Chander Mohan

Sunnyvale, CA, USA.

Email: coolkishore@yahoo.com

Hardware:

**Emulators, EEPROM / PROM / FLASH Programmers.
Digital Storage Oscilloscope – Tektronix, HP, Lecroy.
Video testing signal generators – Leader, Chroma, Astro, Quantum.
Industrial Workstations, Soldering. Electronic Testing and Measuring
Equipments.**

Other Packages and Exposure:

MS-Office, MS-Project, Install Shield, JAVA, **MPLAB**, **OrCad 9.0**, **DASYLab 5.0**,
National Instruments – LabView 5.1, VxWorks, pSOS., **SoftICE** for Windows, Sun-
Solaris.

➤ **Education:**

M.C.A. (Masters in Computer Applications),
Bharathidasan University, April 1999.

B.Sc. (Bachelor of Science), Major: Computer Science,
Bangalore University, April 1996.

➤ **Personal Information:**

Age: 28 Years
Marital Status: Single
Nationality: Indian
Passport: Possess valid Passport with **H1-B** Work VISA.

Kishore K. Chander Mohan

Sunnyvale, CA, USA.

Email: coolkishore@yahoo.com

Projects details:

Projects carried out at Genesis Microchip & Sage Inc, CA, USA.

➤ **Philips – Refresh TV, FLI2300 + JagASM High End LCD TV platform.**

Philips Monitor Division, Taiwan.

Mar 2002 to Present.

- ❑ Philips next generation high end LCD TV platform. Product is aimed at European and US market using two high-end scalars JagASM and FLI2300 Digital Video Format Converter. Which includes Faroudja Labs high quality DCDi deinterlacer and Video Enhancers.

❑ *Role:*

❑ *Environment:*

➤ **CPT – 15-Inch Smart Panel Solution.**

Chungwa Picture Tubes, Taiwan.

Sept 2001 to Feb 2002.

- ❑ Smart Panel monitor using Sage's s9350 highly integrated ASIC which included the Scalar, ADC, 80196 Micro, Active color management and other flat panel display processor components.

❑ *Role:* Provided customized routines of s9350. Also involved in giving timely system solution support to improve on various quality aspects of the video.

❑ *Environment:* Paradigm C++ Cross Compiler for 80196.

➤ **Philips – 18 Inch MFTV – Multi Function TV.**

Philips Monitor Division, Taiwan.

August 2001 to Present.

- ❑ It is a PC Monitor plus TV product aimed at European and US market using Sage's JagASM display processor chip, Faroudja Labs FLI 2200 high quality video signal deinterlacer and Philips SAA 7118E video decoder. This is a extension of the 15 inch project but had higher resolution modes.

❑ *Role:* Provided customized routines of Jaguar and FLI 2200 programming to fit Philips Software Architecture. Also involved in giving timely system solution support to improve on various quality aspects of the video. Solved problems related to Phase and Auto Adjust for higher resolution modes.

❑ *Environment:* Kiel C Cross Compiler for 8032, Chroma 2165 Video Signal Generator.

Kishore K. Chander Mohan

Sunnyvale, CA, USA.

Email: coolkishore@yahoo.com

➤ **Philips – 15 Inch MFTV – Multi Function TV.**

Philips Monitor Division, Taiwan.

Dec 2000 to Sept 2001.

- ❑ It is a PC Monitor plus TV product aimed at European and US market using Sage's JagASM display processor chip, Faroudja Labs FLI 2200 high quality video signal deinterlacer and Philips SAA 7118E video decoder.
- ❑ *Role:* Provided customized routines of Jaguar and FLI 2200 programming to fit Philips Software Architecture. Also involved in giving timely system solution support to improve on various quality aspects of the video.
- ❑ *Environment:* Kiel C Cross Compiler for 8032, Chroma 2165 Video Signal Generator.

Projects carried out at Encore Software Ltd, Bangalore, India.

➤ **STRATUS – (VTL – Virtual Target Laboratory)**

Applied Microsystems Corp. (USA).

October 2000 to December 2000.

- ❑ VTL provides an executable representation of the behavior of system hardware as you understand it, thus enables you to debug and test your code on your host workstation much more thoroughly than was previously possible.
- ❑ *Role:* Developed and Tested PCI, Buffer Modules.
- ❑ *Environment:* Red Hat Linux 2.14, g++, ups debugger.

➤ **Bluetooth Stack Development,**

Encore internal project,

April 2000 to October 2000.

- ❑ Bluetooth is an open standard for communication between various electronic devices using wireless technology. The project involved the development of the network stack with an efficient implementation of the protocols and other network abstraction, which can be used by applications to talk to other Bluetooth enabled devices.
- ❑ *Role:* Involved in Complete Study, Design and Development of the Serial HCI, L2CAP, RFCOMM, SDP Layers in the Bluetooth Stack (Linux Serial Device Driver) and Test Application.
- ❑ *Environment:* Red Hat Linux 2.14, GCC, GTK, UPS and GDB.

Kishore K. Chander Mohan

Sunnyvale, CA, USA.

Email: coolkishore@yahoo.com

Projects carried out at Sage Design Systems, Bangalore, India.

➤ **Carleon XGA Flat Panel Monitor.**

Fujitsu, Akashi, Japan.

October 1999 to December 1999.

- ❑ Fujitsu Carleon XGA Monitor is targeted for the Corporate Market. It features both Digital and Analog input, with detailed English Language On Screen Display (OSD) support, Auto Adjust with Auto Color Balance Feature and Gamma Correction for increased picture clarity. Later this project was further upgraded for international market with foreign language OSD support.
- ❑ *Role:* Involved in securing the design win and customizing the 8032 CODE base to Fujitsu Carleon Monitor Spec requirement. Developed on-site Auto Color Balance routines and extensive testing with documentation to meet JAPANESE quality standards. Providing detailed explanations on doubts and problems encountered.
- ❑ *Environment:* Kiel C Cross Compiler for 8032, ASTRO 897 Video Signal Gen., Leader Denshi 1615 Video Signal Generator.

➤ **Multisync Dual Input Monitor.**

NEC, (Third Party – ShinEI Electronics, Japan).

Jan 2000 to Mar 2000.

- ❑ NEC High End XGA Monitor features both Digital and Analog input, with 5 Language OSD support, Auto Port Switch and Auto Adjust with Auto Color Balance Feature.
- ❑ *Role:* Involved in securing the design win and customizing the 8032 CODE base to NEC Monitor Spec requirement. Developed and integrated on-site with extensive testing, documentation to meet JAPANESE quality levels. Provided detailed explanations on doubts and problems encountered.
- ❑ *Environment:* Kiel C Cross Compiler for 8032, ASTRO 897 Video Signal Gen., Leader Denshi 1615 Video Signal Generator.

➤ **Jaguar 200, Jag-D – Evaluation Kit.**

Fujitsu & Sony, Japan.

Mar 2000 to April 2000.

- ❑ Sage's new line of Display Processors - JAGUAR 200 and JAGUAR - Digital Evaluation support, DEMO and Presentations. Featured support for SXGA monitors and Picture in Picture, with 4 Signal input Ports, De-interlacing feature. Complex OSD routines/effects and Downscaling. Gave on time support for documents and details requested by clients during evaluation of the New Display Processor.

Kishore K. Chander Mohan

Sunnyvale, CA, USA.

Email: coolkishore@yahoo.com

Projects carried out at Systems Aids, Bangalore, India.

➤ **O.M.S. Oscillation Monitoring System.**

R.D.S.O. (Ministry of Railways, Lucknow, India).

May 1999 to August 1999.

- ❑ Based on Intel's 80x196KB High Speed I/O Micro controller, a portable unit used to record in real time the Vertical and Horizontal Oscillation Scales of a rail coach at various speeds and track features. It includes Two Accelerometers, RS 232 Serial interface, RTC, Remote keypad (DTMF), On Board Keypad, Long cord keypad, Tachometer, Low Battery Detection, Recording Data Storage of up-to 2 MB on Flash-RAM, LAMPEX 2 Line 16 character display unit. Necessary calculations were performed to determine the comfort level of the coach on various tracks.
- ❑ *Role:* Involved in the complete project design phase. Design and Development of the Accelerometer, ADC Data Acquisition and storage module. Interrupt driven Tachometer speed and distance calculation module.
- ❑ *Environment:* IAR Compiler, TC 3.0 and VC++ 5.0.

➤ **Volumetric Infusion Pump.**

CORE Healthcare Ltd. (Ahmedabad, India).

Nov 1998 to May 1999.

- ❑ Infusion Pump is a volumetric fluid pump used in intensive care units in the hospitals to deliver accurate quantity of fluids to patients with preset flow rate and reliability with a Tolerance of +/- 5%. Two Motorola's MC68HC711E9 Micro controller was used in Master and Slave configuration. Featured Ultra Sonic Air Bubble detector, Pressure Sensor, Battery Sensor, Drop Sensor that used PWM method to determine drop rate. Accurate Motor RPM control based on pulses from Opto coupler feedback and On-Chip Pulse Accumulator in the Slave, HP 2112 8 Character LED Display shared by both Master and Slave processors with control and data being sent through SPI – Serial peripheral Interface. Generating Square waves with certain frequencies did speaker tone generation? Volume infused calculation, serial communication with IBM PC Through RS 232, On-Chip EEPROM Programming with data coming through COM Port to SCI - Serial Communication API's. It was used for calibration purpose and to set pump parameters.
- ❑ *Role:* Complete design and development of the Micro controller Firmware and PC Front-end Software.
- ❑ *Environment:* IAR Workbench, EVS, Programmer and VC++ 5.0, Windows 95, MFC 4.1.

➤ **Device Driver and Sample App for PC PLUS 140 Series DAC's.**

Systems Aids Product Software.

Feb 1999 to April 1999.

- ❑ The PC-PLUS 140A/141A is one of the cards in PC PLUS 100 series of cards for Data Acquisition and Control Applications, available from Systems Aids, which are compatible with IBM PC, PC/XT, PC/AT or equivalent personal computers. This is a versa function Analog or Digital input/output board that plugs into one of the available ISA expansion slots in the computer with a peak data acquisition speed of 10 KHz. It has the capabilities for ADC, DAC, and DIO, Programmable Pulse I/O useful in a variety of Data Acquisition and Control Applications.
- ❑ *Role:* Designed and developed a general-purpose windows 95 device driver for this card. Which included the DLL for configuration, simple polling mode ADC access, DIO, loading and unloading the VxD, that handled interrupt driven acquisition and DMA mode acquisition. It also featured long duration data acquisition using buffer switch technique. Also developed sample application software and installation software.
- ❑ *Environment:* DDK 4.1, MASM 6.11c and VC++ 5.0.

Kishore K. Chander Mohan

Sunnyvale, CA, USA.

Email: coolkishore@yahoo.com

➤ **Development of Real Time Data Acquisition Software for Self-Propelled Ultrasonic Rail Testing Car (SPURT Car).**

R.D.S.O. (Ministry of Railways, Lucknow, India).

May 1999 to August 1999.

- ❑ Up-gradation of SPURT Car - Self-Propelled Ultrasonic Rail Testing. Replacement of LSI (Large-Scale Integrated) computer and Analog Recorder with industrial grade AXIOM workstations. The workstation is interfaced to the existing MATRIX systems (SPAIN) Electronics for Ultrasonic testing by a 144 DIO card. Which is based on 8255 PPI.
- ❑ *Role:* Designed and Developed the complete software for both Computer and Recorder units, Implemented the various electronics processes in software itself, thus eliminating complicated electronic data acquisition mechanism, which involved asynchronously, timed pulses on different data lines with just 10 to 30 micro second pulse widths (using inline assembly code). Software uses a combination of Polling and interrupts routines. Real Time Online defect reports display & printing. Storage and Off-line processing of final defects reports and other reports. Real Time Online graphical display and printing of 60 Signal Lines.
- ❑ *Environment:* TC 3.0 with inline Assembly Code. Device Driver and Sample App for PC PLUS 140 Series DAC's.

Personal & Academic Projects.

➤ **Motor Control**

June 1997 to Jan 1998.

- ❑ Designed and Developed MS-Dos device driver in Assembly language using MASM 6.11 and user interface in TC 3.0 to control two 3 Volt D.C. motor from the Centronics parallel port of an IBM-PC, It also featured a positional feedback mechanism using U-Slot sensors. Also developed the necessary electronic interface circuitry to control the two motors.
- ❑ *Environment:* 8086 PC, MASM 6.11, TC 3.0.

➤ **Library Cataloging Service.**

June 1995 to April 1996.

- ❑ Scaled down model of library automation software package developed in COBOL 74, done as part of the Project Work in Final Year B.Sc. It was designed to be highly user friendly and incorporated an efficient search routine.
- ❑ *Environment:* 8086 PC, Cobol 74 and Quick Edit.