

Chandrashekar Babu.

Independent FOSS Technologist and Corporate Trainer

Personal website	http://www.chandrashekar.info/
Email address	corporate@chandrashekar.info
Contact numbers	(+91) 9884386075. (+91) 044-26535518 (Residence). (+91) 044-32216664 (Office).
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CAREER OBJECTIVE

- To enlighten and mentor professionals and organizations on Free Software/Open Source Technology.
- Act as a catalyst for a company willing to adapt their technical workforce on FOSS technology and reinforce teams to follow standards-based efficient development and work-flow processes.

WHAT AM I LOOKING FOR ?

- Challenging software project opportunities that better complement my skills and technical expertise.
- Opportunity to train software development teams and managers on FOSS technologies, development tools and methodologies.
- Opportunity to setup development and work-flow processes for a company, mentor and reinforce teams to follow processes that would result in efficient through-put and deliver-ability.

PROFESSIONAL EXPERIENCE (*Total Experience - 15+ years*)

Patents (as approved by WIPO)

(WO/2003/044761) *SYSTEM AND METHOD FOR SOFTWARE LEARNING*

[More details available at <http://www.wipo.int/pctdb/en/wo.jsp?wo=2003044761>]

Managing Director

Slashprog Technologies., Chennai.

January 2010 to Present date.

Slashprog Technologies is a start-up web development and FOSS consultancy company focusing mainly on providing web development solutions using RubyOnRails, CodeIgniter, Django, TurboGears, Drupal, Wordpress and LAMP technology stack. Currently, we are also developing two in-house web application projects (a business networking vertical and an e-Learning cloud service portal).

Responsibilities

- Conduct training programs and workshops on various FOSS related technologies for university/college students/graduates and employed IT professionals.
- Architecture, Design and Project management of two in-house web application projects at present.
- Mentor team/staff on various technology related skills.
- Manage teams to effectively handle client's projects and requirements.
- Train various FOSS technologies and source prospective candidates for employment based on client's needs and requirements.
- Engage with training vendors for corporate training assignments related to FOSS technologies.

Independent FOSS Technologist and Corporate Trainer

Freelance IT training, design, architecture, development and deployment consultancy, trouble-shooting and auditing – using FOSS based solutions.
June 2003 to Present date.

Responsibilities

- Conducted corporate training on FOSS Technologies for the following corporate clients:
 - **Nokia-Seimens Networks., Bengaluru.**
Linux Kernel Internals and Device Drivers.
 - **VMware Software India Pvt. Ltd., Bangalore.**
Advanced Python Programming
Advanced Perl Programming
Advanced Object Oriented Programming using Perl 5,
Enterprise Java Development using Spring and OSGi.
 - **EMC² ., Bangalore.**
Linux Kernel Debugging,
Linux Kernel Internals,
Basic Python Programming,
Advanced Python Programming,
Basic Perl Scripting,
Advanced Perl Scripting,
Linux System Administration,
Web Development using PHP5,
Java Web Services using JAX-WS and Apache Axis2,
Java EE Development using the Spring Framework.
 - **CISCO Systems Inc., Bangalore.**
Linux Fundamentals,
Linux Kernel Internals and Debugging,
Advanced Linux Programming,
Advanced Perl Programming.
 - **AOL Interactive Media India Pvt Ltd., Bangalore.**
MySQL 5.1 Administration and Deployment,
Advanced MySQL 5.1 Deployment and Clustering,
Apache Tomcat Administration and Deployment,
Database Design and Development using MySQL 5.1,
Web Application Development using RubyOnRails,
Advanced Python Programming.

- **Emulex India Pvt Ltd., Bangalore.**
Advanced programming in Python,
Linux Kernel Internals and Device Drivers.
- **Intel Corporation India Ltd., Bangalore.**
Advanced web development using PHP 5
Linux System Administration (L1).
- **Sybase Software India Pvt Ltd., Pune.**
Advanced Shell and Perl Scripting.
- **Oracle India Pvt Ltd., Bangalore.**
Core Java 5 Programming,
Advanced Java 5 Programming,
Developing J2EE Applications using JDeveloper 11 and Oracle Fusion,
UNIX Fundamentals and Shell Scripting [at Oracle, Hyderabad].
- **Hewlett Packard., Bangalore.**
Core Java 5 – Programming concepts,
Advanced Java 5 Programming,
Java 5 Power Programming,
Advanced UNIX Shell Scripting,
Web 2.0: Concepts, Paradigms and Case Studies,
Using XML,
Linux Kernel Internals and Device Driver Development.
Linux System Programming and Application Development
- **Infinite Computer Solutions (India) Ltd., Bengaluru.**
Web Application Development using RubyOnRails 3.0.3
- **Sify Technologies Ltd., Chennai.**
MySQL 5.1 Administration and Deployment.
- **CSC India., Noida.**
Internet and E-mail Security.
- **Goldman Sachs., Bengaluru.**
UNIX Shell and Perl Scripting.
- **BMC Software., Pune.**
Advanced Python and Jython programming.

- **Intuit Technology Services Private Ltd., Bengaluru.**
Web Application Development using RubyOnRails 3.0
- **Fundtech Ltd., Pune.**
Linux Administration Essentials.
Linux System Programming.
- **N E Technologies India Pvt Ltd., Goa.**
Web Services and Software Testing using Open Source tools
(with coverage on SOAPUI, WATIR and Windmill)
- **Bank Of America., Chennai.**
Advanced Perl Scripting.
- **R Systems International Ltd., Noida.**
Linux Kernel Internals and Debugging
Linux Administration Essentials
- **Wells Fargo India Solutions., Hyderabad.**
Business Continuity Planning,
Software design: Tiering, Layering and N-Tier Architecture,
Software design: Identifying Performance bottlenecks,
Software design: Cloud computing concepts
Software design: Application Scalability Modelling
Software design: Application and Data Security
- **AIRCOM International Ltd., Gurgaon.**
Advanced Python programming.
- **Infosys Technologies Ltd., Bangalore.**
Advanced Apache Web Server Administration.
- **SLK Software Pvt Ltd., Bangalore.**
Advanced Scripting using Perl and Tcl/Tk.
- **Qwest Software Services., Bangalore.**
Advanced Perl Scripting.
- **Sapient Corporation Pvt Ltd., Bangalore.**
Advanced web development using PHP5 and MySQL.
- **Sungard Technology Services., Bangalore.**
Advanced Python Programming.

- **Zensar Technologies, Pune.**
Advanced programming in Python,
PostgreSQL 8.3 Administration and Deployment,
Web application development using Webware.
- **VeriSign Services India Pvt Ltd., Bangalore.**
Linux System and Network Security.
- **Logica India Pvt Ltd., Bangalore.**
Agile Methodologies and SCRUM.
Advanced web development using PHP 5 (Chennai).
- **Verizon Data Services India Pvt Ltd., Chennai.**
Advanced UNIX Shell Scripting,
Advanced web design using CSS with XHTML.
- **Aztecsoft Ltd. (now part of MindTree), Bangalore.**
Advanced web development using PHP 5,
PHP 5 preparatory training for Zend Certification,
Advanced web design using CSS with XHTML.
- **Novell Software Development (India) Pvt Ltd., Bangalore.**
Ruby Programming.
- **CGI India Ltd., Bangalore.**
Advanced web development using PHP 5.
- **Amazon Development Center., Chennai.**
Web Application Development using RubyOnRails.
- **Kyocera Wireless Pvt Ltd., Bangalore.**
CVS Administration and Deployment.
- **Fidelity Information Services., Bangalore.**
Job scheduling and Batch processing
concepts on UNIX and Control-M.
- **Samsung India Software Operations., Bangalore.**
UNIX Fundamentals and System Programming.
- **Covansys (CSC India) Pvt Ltd., Chennai.**
PostgreSQL 8.3 Administration and Deployment.

- **Cybage Software Pvt Ltd., Pune.**
Web development using RubyOnRails.
Drupal 6 Development.

- **Microsoft Global Technology Support Center., Bangalore.**
Deploying web applications on Linux-Apache-MySQL-PHP.
[A debate/discussion on features offered by the LAMP stack, comparison with ASP.NET and J2EE along with case studies, in-depth coverage of PHP programming concepts/architecture and model, Apache web server configuration and MySQL database.].
- **NXP Semiconductors India Pvt Ltd., Bangalore.**
Advanced Python Programming.
- **i-flex Solutions., Chennai.**
UNIX Shell Scripting.
- **Cognizant Technology Solutions Pvt Ltd., Coimbatore.**
Programming on Tcl/Tk.
- **Addea International Pvt Ltd., Bangalore.**
PostgreSQL 8.2.5 - Advanced Database Administration and Deployment.
- **Satyam Computer Services Ltd., Chennai.**
Advanced web development using PHP 5,
Advanced Perl Scripting.
- **IBM India Pvt Ltd., Chennai.**
Introduction to Perl Scripting,
Object Oriented Programming using Python (Bangalore),
Advanced Apache Web Server Administration (Gurgaon).
- **AthenaNet India Pvt Ltd., Chennai.**
Advanced Perl scripting for automation.
- **iGate Global Solutions Ltd., Bangalore.**
Web development using PHP5.
- **KLA Tencor India Pvt Ltd., Chennai.**
Programming on Python.

- **U Inc., Chennai.**
Web development using Linux-Apache-MySQL-PHP,
Advanced web development using PHP 5,
Web services development (SOAP) using PHP 5.
Advanced Drupal 6 Development
Advanced MySQL 5.1 for developers
- **Collabnet., Chennai.**
Understanding XML,
Web-based CGI development using Perl,
UNIX Shell Scripting,
Programming in Python,
Linux for developers.
- **Value Source., Chennai.**
Programming in Perl,
UNIX Shell Scripting.
- **Scope International., Chennai.**
Programming in Perl,
Advanced Perl Programming for Automation,
UNIX Shell Scripting,
Linux Clustering and High Availability Servers,
Linux System Administration,
OpenLDAP Administration and Deployment.
- **ELCOT., Chennai.**
Open Source Java and J2EE Development using JBOSS,
Tomcat, RESIN and Eclipse,
Linux System Administration.

- **Honeywell Software Technologies Ltd., Bangalore.**
Web development using Linux-Apache-MySQL-PHP,
Advanced Python Programming.
- **Sensiple Software Technologies., Chennai.**
UNIX Shell Scripting,
Linux System Administration,
Programming in Perl,
Programming in Tcl/Tk,
Database development using Informix,
Database development using MySQL.
- **Allfon Systems India Pvt Ltd., Chennai.**
Linux for developers,
Version Control using CVS.
- **Digital GlobalSoft., Bangalore.**
Linux System Administration,
Remote Administration and Management on RedHat Linux,
UNIX Shell Scripting.
- **Wipro Technologies., Bangalore.**
MySQL 5.1 Administration,
Linux System Programming and Kernel Development.
- **TES PV Solutions India Pvt Ltd., Bangalore.**
Linux device drivers and Kernel Development.
- **RHEA Knowledge Technologies., Bangalore.**
Linux System Administration,
Web development using Linux-Apache-MySQL-PHP,
Advanced web using JavaScript and AJAX technologies, Rapid website
development using Mambo/Joomla CMS, Development and
Deployment of SugarCRM.
- **Prudente Solutions., Bangalore.**
Understanding Linux System Security,
OS Hardening and Vulnerability Analysis on Linux.
- **Compusol Technologies., Bangalore.**
CGI programming using Perl.

- Performed Linux migration, deployment and on-site technical consultancy and support for various clients that include:
 - **ReDIM Software Technologies., Chennai.**
Routine maintenance of their remotely hosted Linux servers hosting web applications.
 - **Lucas-TVS., Chennai.**
Single Sign On Deployment on Linux using Samba+OpenLDAP for centralized domain authentication of 1300+ Linux and Windows NT/Windows XP workstations,
Deployment of High-Availability Clustering for web server and database on Linux using Heartbeat and DRBD,
Centralized automated network backup solution on Linux server using Samba and Rsync.
 - **Gislen Software., Chennai.**
Security Audit and Vulnerability analysis of all live servers.
 - **UserSpace India Pvt Ltd., Bangalore.**
Installation and configuration of Linux on Jumptech PC-104 compliant Pentium processor based embedded devices.
 - **N R Infotech., Bangalore.**
Design and Development of automobile sale portal using Metrix Web Console and PostgreSQL database.
 - **Saket Infotech (India) Pvt Ltd., Bangalore.**
High-Availability/Load Balancing webserver cluster setup for web-hosting on Linux servers using Heartbeat, LVS and NFS.

Senior Member, Technical Staff

Liqwid Krystal India Pvt Ltd, Bangalore.

May 1999 to June 2003.

Responsibilities

- Specialized on Open Source Technologies.
- Designed, developed and deployed with team on CodeSaw – An on-line E-learning portal with remote access technology for practicing programming languages and various FOSS technologies including C, C++, Ruby, Python, Perl, PHP and Linux. The software idea, design and architecture is patented at WIPO under “**(WO/2003/044761) SYSTEM AND METHOD FOR SOFTWARE LEARNING**”
- Worked on the architecture, design and deployment of *security sandbox solution* for running un-trusted programs and applications under the CodeSaw e-Learning server environment by applying RSBAC patches to the Linux Kernel powering the server and also employing virtualization technologies based on User-Mode-Linux and Qemu.

Systems Developer

Proland Software India Pvt Ltd, Bangalore.

June 1997 to April 1999.

Responsibilities

- Maintenance and development of Protector Plus Antivirus Card.

- Analysis of various virus samples (for the MS-DOS and Windows '95 platform) and creation of scan and cure engine for each virus sample.

- Developed exclusively on MS-DOS platform using Borland C and Borland Turbo Assembler.

Teaching faculty

IIHT Jayanagar, Bangalore.

May 1995 to May 1997.

Responsibilities

- Performed training on the following topics:
 - Computer hardware (for A+ syllabus)
 - Computer networking concepts (for N+ syllabus)
 - LAN administration using Novell Netware 3.12 and 4.11
 - Basic Electronics and Digital Computer Electronics

TECHNICAL SKILLS

IT Training Expertise

- **Linux System Administration.**

This training program is a set of customizable training modules for System Administrators to get acquainted on Linux platform and perform routine administration activities on Linux. This training programs is targeted for participants pursuing RHCE and LPI certifications.
- **Linux Clustering.**

This is an advanced training program that covers concepts of clustering using Open Source technologies on Linux platform. This training program provides insight into planning and designing clusters using Linux and Open Source clustering software. Coverage on Linux-HA clusters (heartbeat, mon, nbd, drbd), Network load-balanced clusters using Linux Virtual Server, Performance clusters using OpenMosix and OSCAR, data redundancy and backup strategies using NFS and Rsync.
- **Information Security.**

This training program is targeted for IT managers and IT security officers who are responsible for determining security policies for their company. This training program provides in-depth coverage on security standards, policy controls, assessment, vulnerability analysis, risk management, internal audit and documentation. Based on the organization's requirement, this training program will be customized to cover the aspects of industry standard security standards - ISO/IEC- 27002 security standard and PCI-DSS.
- **Linux Server and Network Security.**

This is an advanced training program for Linux system administrators on standards compliant security policies and implementation of its controls. This training program provides coverage on host security, network security, IDS, firewall, honeypots, centralized logging and auditing, host and network activity monitoring, vulnerability analysis, packet analyzers, incidence response, Crypto configuration and VPN implementation using FOSS based technologies.
- **Deploying OpenLDAP.**

This is an advanced training program for UNIX-competent system administrators. This training program covers in-depth concepts based on centralized information management using LDAP. It covers LDAP concepts, architecture and design, installation, configuration and routine administration using OpenLDAP, understanding LDAP schema, management of LDIF files, migration techniques of existing enterprise data onto

OpenLDAP.

- **Linux Administration for web-masters.**

This is an advanced training program for web-masters competent with UNIX/Linux concepts. It provides coverage on web servers that include Apache httpd, Lighttpd, thttpd and TuX web server, CGI, FastCGI, mod_perl/mod_python/mod_ruby configuration, PHP integration, ModSecurity, SSL configuration (HTTPS) using OpenSSL and GNU TLS, VirtualHost configuration, URL Rewriting, performance tuning, load-balancing and reverse caching proxy configuration. It also covers databases that include MySQL, PostgreSQL and SQLite installation, configuration, performance tuning, clustering and migration, web based management tools that include Cpanel, PHPMyAdmin/PHPpgAdmin. Webmin, Remote management techniques using OpenSSH, Screen, VNC and Remote X11 forwarding. Linux system performance tuning, optimization and security hardening procedures.

- **Linux for developers.**

This training program covers introductory concepts, features and commands targeting developers/programmers to make them productive at work on the Linux platform. It covers features of Linux, file-system architecture and hierarchy, processes and process management, user-privileges and permissions, file/directory management, GNU development tools that include GCC, GNU Make and GNU Autoconf, diff-utils, system monitoring tools and utilities, rcs and CVS, OpenSSH, GNU Screen, basic services and run-level management, software installation and maintenance, basic shell scripting techniques, regular expressions, grep, sed and awk. It also covers program editors – Vim and Emacs in detail.

- **Open Source Version Control Systems.**

This training program is set of customizable training modules targeting developers, managers and system administrators on using CVS and Subversion. Covers administration, concepts, approaches and proven practices on using CVS and Subversion.

- **Programming Practices and Coding Conventions.**

This training program is a set of customizable training modules targeting fresher/junior programmers to follow standard coding conventions, practices, documentation methods and process flow. It is adaptable to any programming language (as per client requirement) and is best recommended as a module for Induction training program for newly employed programmers in a company. It covers standard conventions on variable naming, indentation, modularization, documentation and professional

programming etiquette, programming paradigms (structured programming, OO programming, functional programming) and deterministic approaches involved in problem solving, pragmatic development, team-based development and standard software development approaches.

- **Linux-Apache-MySQL-PHP.**

This training program is a set of customizable training modules targeting web developers and web-masters on concepts of Linux, Apache web server, MySQL database and web-development using PHP. Based on client's requirement, this training program can be customized to cover readily available CMS like Joomla and Drupal, web application frameworks that include CodeIgniter, CakePHP, Smarty and PHPTemplate.

- **Client-side web development using W3C standards.**

This is an intermediate to advanced training program targeting web designers and web developers on client-side web technologies that include XHTML, CSS, XML, XSLT, JavaScript, W3C DOM, AJAX, Semantic web design/development, Web 2.0 standards and approaches. It covers a lot of case studies, various proven techniques used in creation of appealing UI and usability. Based on organization's requirement, this training program can also incorporate readily available AJAX toolkits based on pure client-side JavaScript UI toolkits, PHP driven toolkits, Python/Ruby driven toolkits.

- **Web-based development using PHP and MySQL.**
 This is an intermediate to advanced training program targeting web developers working on server-side web technologies. It provides coverage on PHP5 programming methodologies that include introductory web programming concepts, various built-in PHP functions for handling string manipulation, regular expressions, file management, sessions and cookies, URL handling, database connectivity and integration, OO methodologies, logging and reporting, secure programming, design patterns relevant to web development and web application frameworks. It also covers MySQL database concepts, configuration, connectivity from with PHP5 using mysql and mysqli extensions, database abstraction API that include PEAR::DB, PDO and ADODB, database performance tuning and optimization for serving websites.
- **Deploying Open Source J2EE framework on Linux.**
 This is an advanced training program targeting web masters and web developers using J2EE technologies. It provides coverage on Apache web-server installation, configuration, features, performance tuning and large-scale deployment, J2EE stack comprising of Ant, JBoss, Resin, Tomcat, Velocity, Struts, Lucene, Tapestry, James, Logging Services, database connectivity to MySQL/PostgreSQL. It also covers performance tuning and optimization techniques, caching, clustering and load-balancing techniques, integration, testing, deployment and maintenance of EJB and web-services using the Apache web-services stack.
- **CGI programming in Perl.**
 This is an intermediate to advanced training program targeting web developers working on server-side web technologies. It provides coverage on Perl programming concepts, string manipulation, regular expressions, lists, hashes and references, file management, OO methodologies, built-in Perl modules, CPAN archive, CGI concepts, GET/POST methods, cookies and session management, database connectivity using DBI, templating toolkits in Perl, configuration and deployment of mod_perl.

- **Perl programming for System Administrators.**
This is an advanced training program targeting system administrators who are competent with UNIX concepts. This training program is focused on using Perl to automate routine system administration tasks. It covers introductory concepts on Perl, programming paradigms, string manipulation and regular expressions, file management, process management, interfacing and interacting with various processes, IPC mechanisms, socket programming, database connectivity, networking modules, diagnostics and monitoring modules.
- **Programming in Tcl/Tk.**
This training program targets programmers and automation/testing engineers new to functional programming paradigm. It covers introductory concepts on functional programming paradigm, Tcl commands, concepts, strings and lists, extensions, interacting with processes, event-driven programming methodologies, rapid GUI development using Tk.
- **Programming in Python.**
This is an introductory/intermediate/advanced-level training program targeted for application/web developers and system administrators. It covers introductory concepts in Python, OO methodologies in Python, pragmatic development approach, string manipulation, lists, tuples, dictionaries, regular expressions, file and directory manipulation, built-in modules, database connectivity, process management, threads, network programming, XML handling, web-based development and automation and using Jython.
- **Programming in Ruby.**
This is an introductory/intermediate/advanced level training program targeted for application/web developers. It covers introductory concepts in Ruby, pragmatic programming, rapid prototyping, development, duck-typing, OO concepts and methodologies in Ruby, string manipulation and regular expressions, arrays, hashes, ranges, built-in objects and methods, file/file-system and directory manipulation, process management, interacting with external programs, IPC mechanisms, multi-threading, network programming using sockets and high-level API, XML handling, web development using CGI, mod_ruby and an overview on Rails framework, overview on various built-in modules and extension libraries.

- **Web-based development using RubyOnRails framework.**
 This is an intermediate/advanced level training program targeted for web developers working on server-side technologies. It covers introductory concepts of OO methodologies, primer on Ruby programming language and in-depth coverage of the Rails framework that include – Rails setup and deployment, the MVC model, Rails architecture, defining back-end databases, scaffolding and model generation, understanding the controllers, layouts, templates and views, extending and maintaining Rails based web applications. It also covers simple to intermediate level case studies and samples.
- **UNIX Shell Scripting.**
 This is an intermediate to advanced level training program that covers in-depth concepts relevant to UNIX command-line utilities and the standard UNIX shells (Bourne Shell, Korn Shell, GNU Bash). This training program is targeted for UNIX/Linux system administrators and also developers in getting them acquainted to the UNIX command-line ideology. It covers various built-in features of the shell that includes – shell invocation methods, shell short-cuts, shell variables, shell commands, shell control structures (conditions, loop, functions/macros, aliases), redirection, pipes, job control, process manipulation, file/filesystem and directory management, signals and FIFOs, complex data variables (arrays, record-sets), regular expressions, string manipulation, shell expansions (wild-card, process, variable, arithmetic, functional groups), shell special parameters, shell environment, advanced scripting techniques and performance optimization, debugging techniques. It also covers significant feature differences amongst prominent POSIX-compliant shells – Bourne shell, Korn Shell and GNU Bash. Various supportive UNIX/GNU commands (including grep, sed, awk, find, dialog, zenity) are also covered in detail.
- **Application development on GNU/Linux using C++.**
 This is an advanced training program that targets C++ developers into Linux platform development. It covers UNIX/Linux architecture, system calls and GNU libraries relevant to string manipulation, regular expressions, file handling, directory and file-system manipulation, terminal libraries (Ncurses, Slang, newt), Boost library, libxml2, libxslt and expat libraries, GUI development for X Window System using Gtk+, Qt and WxWindows, internationalization and localization, GNU tool-chain, debugging tools and techniques.

- **UNIX/Linux System Programming in C.**

This is an advanced training program targeting programmers well-versed in C Programming Language. It covers in-depth UNIX and Linux OS architecture, file-system architecture and hierarchy, pseudo-file-systems (/proc, /dev, /sys), kernel API mechanisms on UNIX and Linux (/dev and /proc, system calls, IOCTL), various system calls and library functions that cover file management, file-system and directory management, process management, memory management, signals, pipes, FIFO, message queues, semaphores, time and date handling, resource limiting, network programming using sockets, advanced string manipulation and regular expressions, creating shared libraries and using them by dynamic loading, database manipulation, interacting with hardware using direct I/O and IOCTL interfaces, and GNU libc library functions. It also covers GNU tool-chain for developers that include GCC, GNU Make, GNU Autoconf, diff and patch utilities, using CVS and Subversion. Debugging techniques using GDB, Valgrind, dmalloc, libsafe and mcheck are also covered.
- **Linux Device Drivers and Kernel Development.**

This is an advanced training program that targets system programmers into Linux kernel development environment. It provides an in-depth coverage of PC Platform architecture (Processor instructions, modes of operation, memory management, device interfaces and access modes, Linux kernel architecture and kernel interfaces, Linux kernel modules, user-mode programs/interfaces for managing LKMs, Linux Kernel development constraints, Linux Kernel data-types and re-usable algorithms, miscellaneous kernel programming quirks, kernel scheduler architecture and manipulation, memory management, I/O device management, file-system interface, VFS architecture, pseudo-file-system interfaces, kernel synchronization using spinlocks, semaphores and futexes, creating and managing custom LKMs, Linux kernel device model, device classes, char and block devices, debugging device drivers, handling race conditions and concurrency, mapping file operations to char devices, memory allocation and management in kernel mode, transferring between kernel-mode and user-mode, mapping block operations to block devices, hardware memory mapping, interrupt handling, direct hardware I/O, interfacing PCI buses, understanding the USB subsystem and managing devices via USB, network drivers, debugging techniques in kernel-mode.
- **Deploying Linux on Embedded Systems.**

This is an advanced training program targeting Linux Kernel developers and system programmers on techniques involving development and deployment of Linux on embedded platforms. It covers the architecture of industry standard embedded devices and interfaces that include x86 compliant PC-104+ architecture SBCs and ARM based boards, hardware constraints and

work-around, GNU/Linux cross-compiler tool-chain, an overview of Linux kernel architecture, LKM and device drivers, customization of the Linux kernel, deployment of small foot-print boot image using customized Linux kernel and user-space programs using BusyBox, uClibc, TinyCC and asmtl. Performance and size optimization techniques for embedded platforms, boot configuration, various file-systems optimized for embedded platforms (minix-fs, CRAMFS, initramfs and tmpfs), small foot-print network services (udhcpd, utelnetd, OpenSSH with uClibc, tthttpd and TuX web server), debugging techniques for embedded platforms.

- **Programming in C/C++ on GNU/Linux.**

This is an induction training program recommended for freshers and newly-employed candidates in an organization. This training program covers fundamental programming concepts and algorithm development, problem-solving techniques and logical thinking paradigms, introductory concepts in C language, C constructs and ingredients that include – statements, data-types, variables, functions, conditions, loops/iteration, recursion, standard C built-in functions, GNU libc functions, UNIX system calls and other interfaces, simple data manipulations (involving numbers, characters and strings), arrays, pointers, structures and unions, linked lists, hash-maps and lookup tables, stacks and queues, binary trees, sorting and searching algorithms, complex structures and algorithms, creating re-usable modules and libraries, debugging techniques. The C++ module covers introductory primer on OOP concepts, classes and objects, methods (member functions), attributes (properties), constructors and destructors, class hierarchy, inheritance and sub-classing, friend functions, templates, exceptions and RTTI, C++ pitfalls, STL, Boost, design patterns relevant to C++.

- **Programming in Java.**

This is an induction training program recommended for freshers and newly-employed candidates in an organization. This training program covers fundamental programming concepts and algorithm development, problem-solving techniques and logical thinking paradigms, OO methodologies and OOP paradigms, introductory concepts in Java language, Java constructs and ingredients that include – statements, data-types, variables, functions, conditions, loops/iteration, exception handling, recursion, standard Java API, simple data manipulations (involving numbers, characters and strings), arrays, vectors, hashes, lists, references, stacks and queues, binary trees, sorting and searching algorithms, complex structures and algorithms, creating re-usable classes and jar files, debugging techniques for Java applications, using javadocs, network programming in Java, multi-threading in Java, streamed I/O handling, buffered I/O handling, file manipulation, directory manipulation, accessing the Java runtime environment, platform - independent program design, overview on AWT and Swing API, overview on web development using J2EE framework.

- **Agile Development and Project Management.**

This is an advanced training program targeting project managers, team leaders and senior developers acquainting the participants on current software development and project management trends and techniques. It covers the principles of Agile development approach with insight on XP methodologies, SCRUM, CRC, project planning, resource/time estimation, client interaction, team-building and team-management techniques, pragmatic development, change-management, Agile modeling, Agile Unified Processes, Crystal Clear paradigms (Reflective improvement, Osmotic communication, Automated tests, configuration management and early-integration), DSDM, Agile software costing estimation, Agile modeling, project management and development tools.

- **UML – Fundamental Concepts and Technique.**
This is an intermediate/advanced training program targeting project managers, team leaders and senior developers. It provides coverage on UML based software architecture/modeling methodologies, UML architecture, structural diagrams, behavioral diagrams, extensibility mechanisms, OOP concepts and their representation using UML, object relationships, modeling interactions, object life-cycle modeling, use-case diagrams, activity diagrams, state diagrams, object constraint modeling, automating UML modeling processes, coverage on Dia and ArgoUML.
- **Design Patterns.**
This is an intermediate/advanced training program targeting project managers, team leaders and senior developers. It covers the principles of reusable components in software development, determination of functional, creational, structural, behavioral and concurrency patterns. This training program is meant to be customizable as required by the client in implementation languages – C++, Java, Python, Ruby, Perl and PHP. It covers several case studies for each design pattern, with appropriate usage scenario.

EDUCATIONAL BACKGROUND

- Master of Computer Applications – June 1999, IGNOU.
- Bachelor of Computer Applications – June 1997, IGNOU.
- Pre-University Course – May 1994, BES College of Science, Bangalore.

PERSONAL DETAILS

Date of Birth : December 2nd, 1976.

Contact numbers : +91-44-26535518,
(+91) 9884386075,

E-mail addresses : corporate@chandrashekar.info
training@chandrashekar.info
chandrashekar.babu@gmail.com

Personal website : <http://www.chandrashekar.info/>
Company website : <http://www.slashprog.com/>

To know more about me, kindly visit the following URL:

<http://www.chandrashekar.info/about.html>