

Linux Kernel and Systems Software

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Course Overview

This course is intended for anyone (intermediate/beginner/student/working-professional) to gain good hands-on knowledge on a Linux Systems Software development platform which includes both user-space and kernel-space.

Duration

20 - Sessions (2 hours a session) - Lectures and Practical

Approximate duration: 2 months

Prerequisites

- You should have good prior C programming skills (intermediate/expert level) and hands-on such as:
 - Algorithms and programming
 - Structured programming
 - Knowledge/hands-on Data-structures, APIs, etc.

Topics Covered

User-Space:

- Linux C programming advanced topics
- GCC compiler
- multi-threaded user-space apps
- Linux Daemons
- Process/Thread architecture and scalability
- Process/Thread synchronization
- Socket programming and Network software programming
- Memory Structure
- Research

Kernel-Space:

- Linux Kernel basics and internals
- Kernel architecture
- Kernel subsystems:

- Platform, Networking, Memory management, Process, File-systems, etc.
- Kernel modules
- Kernel data-structures
- Kernel customization, compilation
- Kernel<>User-space interaction
- Kernel /proc file system
- Kernel programming
- Kernel ioctl() interface
- Research

Course Delivery

Students living abroad:

We can have teaching sessions via Google hangouts/Skype, etc (audio/video/chat sessions).

You can pay your fee via Paypal and enroll for the classes/course.

Course Fee: * kindly refer the website Courses Tab.

Students living in India:

We can have teaching sessions via Google hangouts/Skype, etc (audio/video/chat sessions).

You can pay your fee directly to my bank account and enroll for the classes/course.

Course Fee: * kindly refer the website Courses Tab.

Students staying at Bangalore:

You can come home for the teaching sessions, optionally I can also engage via Google hangouts/Skype, etc (audio/video/chat sessions). You can pay your fee directly or to my bank account and enroll for the classes/course.

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For more details kindly contact me via email: kiran.kankipati@gmail.com

