"Online Training on Linux System Programming"
by **Pradeep Tewani**

+ *Session 1: Introduction*
- Introduction & Getting Comfortable
- Linux System Overview
- Linux System Components

+ *Session 2: System Calls in Linux*
- W's of System calls
- System Calls & Library function
- System call examples

+ *Session 3: Processes in Linux Part 1*
- Process Overview
- Process Creation & operations

+ *Session 4: Processes in Linux Part 2*
- Waiting for the Process termination
- Zombie Processes

+ *Session 5: Signals*
- W's of Signals
- Types of Signals
- Signal Examples

+ *Session 6: Inter Process Communication Part 1*
- IPC Overview
- Pipe & Fifo
- Message Qs

+ *Session 7: Inter Process Communication Part 2*
- Shared Memory
- Process Semaphores

+ *Session 8: Threads in Linux Part 1*
- W's of thread
- POSIX Threads & their Internals
- Threads Creation, Operations & Usages

+ *Session 9: Threads in Linux Part 2*
- Thread Joining
- Thread Cancellation

+ *Session 10: Synchronization in Linux*
- Synchronization Overview
- Synchronization Mechanisms

+ *Session 11: Linux Network Management*
- Network Management Overview
- Introduction to Sockets
- Basic Socket Programming

+ *Session 12: Wrap Up*
- Do it yourself
- What Next?

Caution: All sessions are highly interactive & hands-on with PC

Hands-On Details

+ System Calls
- System call tracing
- Hands-on with System calls

+ Signals
- Communicating using Signals

+ Processes & IPCs
- Processes all Around
- Relations drive Communications

+ Multi-threading & Synchronization
- Threading w/ pthreads
- Synchronization between pthreads

+ Socket Programming
- Various Client-Server implementations

+ Do It Yourself
- Left for Guessing