"Online Training on Baremetal Programming using Embedded C" by **Anil Pugalia**

+ Session 1: BBB Setup & Exploration
- Readying BBB for Baremetal Programming
- Understanding BBB for Embedded C

+ Session 2: Embedded C Development
- Cross Compilation
- Linker & its Tweaks

+ Session 3: Basic I/Os Programming
- General Purpose I/Os
- Blinking the LEDs

+ Session 4: Debug Interface Setup
- Serial Programming
- Debug Interface over Serial

+ Session 5: Interrupt Management
- Timer Module
- Interrupt Sub-system

+ Session 6: I^2C Interfacing
- I^2C Protocol
- EEPROM Access

+ Session 7: Learning Integration
- Shell Application aka Firmware

+ Session 8: Wrap Up
- XMODEM Protocol
- What Next?

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

Hands-On Details

+ BBB Setup & Exploration
- Setting up the BBB and related hardware

+ Embedded C Development
- Compiling Embedded C programs
- Executing Embedded C programs

+ Basic I/Os Programming
- Blinking LEDs
- Optimization Effects

+ Debug Interface Setup
- Setting up the Serial Debug Interface
- Reading & Writing Numbers
- Uninitialized BSS

+ Interrupt Management
- Implementing a Timer Use Case
- Interrupt based Timer Implementation

+ I²C Interfacing
- I²C Protocol Programming
- Pin Muxing in Action
- Accessing an I²C EEPROM

+ Learning Integration
- Implement an Interactive Embedded Application aka Firmware
- XMODEM Firmware Experiments