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Ms. S. Manjula, VEC, Chennai

Speakers include:

- Mr. Thilak Kumar, Technical Manager, Wind River, India
- Mr. N. Abid Ali Khan, System Analyst - Aerospace and Automotive Center of Excellence (AACE), Satyam Computer Services Ltd, Chennai

Registration Details

Participants are requested to send the duly filled registration form along with Demand Draft in favor of 'Velammal Engineering College' payable at Chennai.

The registration fee is as follows:

Industry Delegates Rs. 750/-
Academic Staff/R&D Personnel Rs. 500/-
Students Rs 300/-

The registration fee includes workshop materials and working period lunch. Accommodation is available to a limited number of participants on request and extra payment of Rs 100/- per day. There are numbers of budgetary lodging/boarding facilities are available in Chennai and most importantly the participants make sure their accommodation prior to the workshop. However, arrangements will be made on request. Please visit <http://tifac.velammal.org/> for further details & to download registration form.

Important Dates

Registration deadline: August 20, 2009
The Workshop: September 24-25, 2009

Address for Communication

Dr. A. Balaji Ganesh,
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Two days Workshop on **V_xWORKS 6.6** September 24-25 2009



Organizer



TIFAC - CORE

in

*Pervasive Computing
Technologies*



VELAMMAL ENGINEERING COLLEGE
Chennai – 600066

Course Description

The VxWorks workshop provides engineers with a fast, cost-effective way to acquire the knowledge necessary to develop real-time applications with Tornado's integrated development environment. The workshop will be held during September 24-25' 2009 at TIFAC-CORE, Velammal Engineering College, Chennai-66, Established in the year 1995-96, to impart quality education. It is one of the top ranking engineering colleges for Engineering and Technology Education in India. It is a self financing non-minority institution, affiliated to Anna University and approved by All India Council for Technical Education (AICTE). All the approved courses are accredited by National Board of Accreditation (NBA) of AICTE.

The TIFAC-CORE in Pervasive Computing Technology is commenced in 2005, which has the vision to establish a Centre of Relevance and Excellence in Pervasive Computing Technology, impart quality education, foster research to help industries to adopt the pervasive computing technology, thereby focus on applications of social relevance for the uplift of the nation and thus bridge the digital divide

Topics

- ✓ Booting VxWorks
- ✓ Project Facility
- ✓ Integrated Simulator
- ✓ Tornado Shell
- ✓ Symbolic Debugging
- ✓ Source Debugging (CrossWind)
- ✓ Performance Monitoring Tools
- ✓ Preemptive Task Scheduling
- ✓ Wind River System Viewer
- ✓ Semaphores
- ✓ Memory Management
- ✓ Intertask Communication
- ✓ Message Queues and Pipes
- ✓ Mutual Exclusion and Reentry
- ✓ Interrupt Handling
- ✓ Writing Exception Handling Code
- ✓ Reconfiguring VxWorks

Products Supported

- ✓ VxWorks 6.6
- ✓ Work Bench 3.0

Who Should Attend

- ❖ Everyone who will receive Wind River products within 60 days
- ❖ Developers who work with Tornado and VxWorks
- ❖ New project members on teams already using Wind River products
- ❖ Managers who want a quick understanding of Wind River products
- ❖ Senior engineers who want to evaluate VxWorks technology
- ❖ Device Driver writers

Prerequisite Skills

- ✓ Basic C programming
- ✓ Basic understanding of operating systems and debugging techniques
- ✓ Functional knowledge of UNIX or Windows NT

Course Format

- Our two-day instructor-led courses consist of lectures and lab sessions.
- Students gain hands-on experience and receive personal guidance from expert Wind River instructors.
- Students examine details, focusing on the most commonly used areas.
- Specific questions are addressed.
- Lab sessions allow hands-on application of course concepts.

Course Results

After this course, participants will be able to:

- ✓ Take a requirement specification to a working application

- ✓ Design, develop, debug, build, and test real-time applications in a target-host development environment with Tornado and VxWorks
- ✓ Efficiently use the tools and functionality of Tornado and VxWorks

Agenda

Day 1

Getting Started

- Tornado Components
- Getting Help
- Booting VxWorks
- Target Server and Agent
- Launcher and Tornado Development Environment

CrossWind Debugger

- Starting a Debugging Session
- Basic Debugger Commands
- Customizing CrossWind
- System-Level Debugging

Real-Time Multitasking

- Task Scheduling
- Task Creation
- Task Management
- Additional Task Context
- System Tasks

Wind River System Viewer

- Configuring Wind River System Viewer Events

Day 2

Semaphores

- Binary Semaphores and Synchronization
- Mutual Exclusion Semaphores

Intertask Communication

- Shared Memory
- Message Queues & pipes

Memory

- Memory Allocation
- Memory Partitions

VxWorks Events

- Event Register
- Task Synchronization

Exceptions Interrupts and Timers

Exception Handling and Signals

ISR Basics

System Clock and Watchdog Timers

Reconfiguring VxWorks

Including/Excluding VxWorks Facilities

VxWorks Initialization Code

Linking Application Code with VxWorks