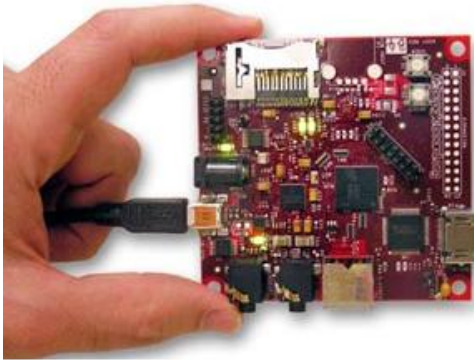




CDAC Hyderabad, Texas Instruments, India and
VLSI Society of India, Hyderabad
Jointly announce a two-day workshop on



beagleboard.org

Designing Low-Power Embedded Systems using Beagleboard Open-Source Platform

July 12-13, 2010 | 9.30am – 5.30pm
CDAC Office, JNTU Campus, Kukatpally Hyderabad

Faculty:

Prof. Mark Yoder, Rose-Hulman Institute of Technology, USA
Dr. C.P. Ravikumar, Texas Instruments, India
Mahesh U. Patil, CDAC, Hyderabad, India
Jayaramudu, Cranes Software, India

About CDAC Hyderabad

C-DAC, Hyderabad is a Knowledge centre with the components of Knowledge Creation, Knowledge Dissemination, Knowledge Application to grow in the areas of Research & Development, Training and Business respectively. The R & D areas of the centre are e-Security, Embedded Systems, Ubiquitous Computing, e-Learning and ICT for Development. The centre has developed over a period of time a number of products and solutions, such as EnSafe, RealSafe, e-Sikshak, e-Savya, CET Automation Tool, Quality Assurance Analytics Tool for e-Learning etc. The centre has established a number of labs in cutting edge technologies like e-Suraksha Concept Lab, Malware Resource Centre, Ubiquitous Research Centre, Walk-in e-Learning Technology Laboratory, etc. The centre has also actively involved in ICT for development through its Multilingual "India Development Gateway (InDG)" Web Portal. The centre has also taken initiative for creating Mass Awareness in Information Security. In line with these R&D strengths, the centre also offers Post Graduate level diploma courses in the areas of Network Security, Embedded Systems, VLSI, System Software Development, Advanced Business Computing etc.

About VLSI Society of India (VSI)

VSI was founded in 1989 as a non-profit society. The purpose of VSI is to contribute and promote the advancement of all aspects of VLSI technology, primarily in India. VSI holds workshops and short-courses through the year, in all parts of the country to bring together the industry, academia and mainly the students, on hot and emerging topics of VLSI and related topics. See <http://vlsi-india.org/vsi> for details.

About the Workshop

Today's embedded processors that can handle multimedia have come a long way from the limited performance of 8- or 16-bit embedded processors or the limited functionality of a dedicated DSP

chip. This 2-day, hands-on workshop presents ideas on how to use TI's OMAP 3530-based BeagleBoard (www.BeagleBoard.org) for teaching embedded media processing using Open Source resources. The OMAP3530 processor contains both an ARM Cortex-A9 processor and a 'C6400 DSP. The BeagleBoard is Open Source hardware that has sold over 16,000 units since its introduction less than 2 years ago and has a thriving Open Source Software community.

Agenda for Day-1

- Ø Introduction to Open Source software
- Ø Overview of the Embedded Linux
- Ø Overview of the Beagle Board
- Ø OMAP3530 applications processor overview
- Ø Beagle Board Software Compilation Options and Procedure
- Ø Booting the Beagle Board
- Ø Validation Procedure for Peripherals on Beagle Board

Agenda for Day-2

- Ø Introduction to DSP/BIOS and DSP/BIOS Link
- Ø Building DSP/BIOS Link
- Ø Building Gstreamer and DVSDK for Beagle board
- Ø Video Application by using Linux Video Driver
- Ø Building openCV, FFmpeg and interfacing USB Web Cam.
- Ø Porting Android to Beagle Board.

The workshop activities will include several demonstrations of what the Beagle can do, including streaming video and synthesizing speech, discussions of what topics to include in an embedded Linux class and several hands-on exercises to get participants familiar with using the Beagle.

Sponsored by:

- Texas Instruments, India
- VLSI Society of India
- CDAC, Hyderabad
- Cranes Software

Advisory Committee:

- Dr. D.K. Jain, Director, CDAC, Hyderabad
- Dr. N. Sarat Chandra Babu, Director, CDAC, Bangalore
- Prof. C.D. Naidu, Principal VNR-VJIET and President VSI Chapter of VNR-VJIET

Organizing Committee:

Dr C.P. Ravikumar, Texas Instruments, India (+91 80 25099727)
 Mahesh U. Patil, CDAC, Hyderabad (+91-40-23150115 FAX: +91-40-23150117)
 Imran Sayeed, Cranes Software (+91 98456 94166)

About the Speakers:

Prof. Mark A. Yoder likes teaching Digital Signal Processing (DSP). He is co-author of two award-winning texts, "Signal Processing First" and "DSP First: A Multimedia Approach", both with Jim McClellan and Ron Schafer. He is also a co-author for the Infinity Project, an engineering curriculum for high school students and has co-authored the text for this project, "Engineering Our Digital Future". Dr. Yoder is a professor of Electrical and Computer Engineering at Rose-Hulman Institute of Technology. This is a small private, nationally ranked engineering college located in Terre Haute, Indiana, USA. He received the school's Board of Trustees Outstanding Scholar Award in 2003. Prof. Yoder received the BS degree in 1980 and the Ph.D. in 1984 in Electrical Engineering from Purdue University, West Lafayette, Indiana, USA.

C.P. Ravikumar is the Technical Director of University Relations for Texas Instruments, India. He obtained his Ph.D. from the University of Southern California (1991). He joined the Indian Institute of Technology (Delhi) as a member of the faculty of Electrical Engineering and served as a Professor until 2001. He joined Texas Instruments, India in 2001, where he has played several roles, including those of Senior Technologist in VLSI Test. He is the author of more than 200 papers in leading International conferences and journals. He has published "Parallel Methods for VLSI Layout" (Ablex Publishers, NJ, 1996), contributed 5 book chapters, and has edited over 10 books in the series "Progress in VLSI Design and Test." He serves as the honorary secretary of the VLSI Society of India, IEEE Circuits and Systems Society Bangalore Chapter, and the founding chair of VLSI Design and Test Symposium.

Mahesh Patil is a Project Leader for the National Ubiquitous Computing Research Centre, established at C-DAC, Hyderabad. His research interests include Model Based Design of Ubiquitous Computing Systems, Wireless Sensor Networks, Protocol Design and Open Source Real Time and Embedded Operating Systems. He was instrumental in setting the Wireless Sensor Networks Application Research and Development Lab (WISARDLab) at C-DAC, Hyderabad and is presently implementing a productivity tool for WSN application development.

Jayaramudu is an application engineer in Cranes Software and works on Texas Instruments India University Relations program. He has conducted a number of half-day and full-day workshops on Beagleboard. He has conducted several train-the-trainer programs on the Beagleboard. He has a B.E. degree in Electronics and Communication Engineering. His interests are in embedded system design and open-source software development.

www.cdachyd.in www.ti.com <http://uniti.in> www.cranessoftware.com

Prerequisite

We expect the participants to have a strong interest in open-source software, embedded system design and applications. A prior exposure to Beagleboard will be a bonus. Please go through the website www.beagleboard.org for more details.

Registration

The workshop is intended for faculty, students, and professionals interested in open-source system development. In order to participate, please fill out the following details and send an email to the organizing chair no later than June 15, 2010.

Early-bird Registration Fee (Before June 15)

Registration fee after June 15

Students/Faculty		Industrial Professionals		Students/Faculty		Industrial Professionals	
VSI/IEEE/IET/ Members	Non-members	VSI/IEEE/IET/ Members	Non-Members	VSI/IEEE/IET/ Members	Non-members	VSI/IEEE/IET/ Members	Non-members
Rs 2000/-	Rs 2500/-	Rs 3000/-	Rs 3500/-	Rs 2500/-	Rs 3000/-	Rs 3500/-	Rs 4000/-

- The cost of the workshop includes a registration kit, lunch and refreshments on both days, and a participation certificate.
- The participants from the academia will have the option of purchasing a Beagleboard at a discounted rate of Rs 8000/-. Please write to Imran Sayeed of Cranes Software indicating your name, and quote the discount code which will be provided to you at the workshop.

The payment may be made through DD or cash at the registration desk. DD must be made in the name of 'VLSI Society of India'. It must be mailed to Gopal Naidu, Treasurer, VLSI Society of India, Texas Instruments India, Bangalore 560093. Clearly indicate that the amount is for the Beagleboard workshop. Your participation will be confirmed on or before June 25, 2010.

Queries: Queries may be sent to vsisecy@vlsi-india.org

Venue – Jawaharlal Nehru Technological University(JNTU) Campus, Kukatpally, Hyderabad - 500085 Andhra Pradesh(India)
 Phones:+91-40-23150115

REGISTRATION FORM

1. Name in capital letters :
2. Organization:
3. Status: (Student/Faculty/):
4. Discipline:
5. Contact phone:
6. Contact email address:
7. Have you taken a course on Beagleboard before?
8. VSI/IEEE/IET member: (Yes/No)
[Should be valid in 2010]
9. If Yes: Member number:
10. Amount paid:
11. Signature

The payment may be made through DD or cash at the registration desk. DD must be made in the name of 'VLSI Society of India'. It must be mailed to Gopal Naidu, Treasurer, VLSI Society of India, Texas Instruments India, Bangalore 560093. Clearly indicate that the amount is for the Beagleboard workshop. Your participation will be confirmed on or before June 25, 2010.

Agenda - Day 1:

8.30am – 9.30am - Registration
9.30am – 10.30am – Inauguration
10.30am – 11.45am – Session I
11.45am – 12.00nn – Tea Break
13.00nn – 1.00pm – Session II
1.00pm – 2.00pm – Lunch
2.00pm – 3.30pm – Session III
3.30pm – 3.45pm – Tea Break
3.45pm – 5.30pm – Session IV

Agenda - Day 2:

9.30am – 11.00 am – Session V
11.00am – 11.15pm – Tea Break
11.15am – 1.00pm – Session VI
1.00pm – 2.00pm – Lunch
2.00pm – 3.30pm – Session III
3.30pm – 3.45pm – Tea Break
3.45pm – 5.15pm – Session IV
5.15pm – 5.30pm – Distribution of Certificates