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Cranes Software Int. Ltd www.cranessoftware.com

In collaboration with TI India University Program & Cranes Software International Limited Department of Medical Electronics & Industry Institute Interaction Cell (IIIC), BMS College of Engineering

announces a

One Week **TEQIP-II** Sponsored Workshop On

"Analog and Embedded Processing" Date: JULY 1- 6, 2013 | Time: 9:30 am - 5:00 pm Venue: BMS College of Engineering, Bangalore

About the workshop

This workshop has been designed for the faculty, research scholars and PG students of Engineering who are working (or interested to work) in the area of Embedded Design and Processing and Analog System Design. The workshop will cover various aspects of modern electronic systems, namely, microcontrollers, digital signal processors, and analog electronics. Each module will be covered for two days which include Hands-on Training for all the modules by the experts. The resource persons will be experts drawn from industry and academia. The workshop will include lectures, demonstrations, and hands-on experiments. The hands-on training in the workshop will be carried out on the following platforms:

Analog System Lab Kit

The Analog System Lab Kit (ASLKv2010) developed by Texas Instruments Manufactured & Distributed by Cranes Varsity. The kit uses building blocks such as Op-Amp, Analog Multiplier, DAC, DC-DC Converter & LDO. It can be used to construct larger systems such as integrators, differentiators, filters, function generator VCO, PLL, AGC and many more. The workshop will focus on Analog System design using basic Analog IC's.

OMAP L-138 Board

The DSP processor TMS320C6748 is a high performance 32bit floating point processor from Texas Instruments. TMS320C6748 DSP'S find widespread use in applications like embedded analytics and real-time signal processing, including biometric analytics, communications and audio. In this workshop, the intention is to implement the concepts of digital signal processing into the Digital Signal Processor. The TMS320C6748 UNIV KIT along with code composer IDE will be used to illustrate these concepts. The university kit will have DSP TMS320C6748 SOM along with AIC3104 CODEC for doing real time audio and signal processing applications and also the board includes led and switches which are user programmable.

MSP430 Launchpad

The MSP430 is an ultra-low power 16-bit microcontroller family from Texas Instruments. MSP430 microcontrollers find widespread use in applications such as energy meters, medical applications, and wireless sensor networks. In this workshop, the intention is to expose to the concepts of low power embedded systems, embedded peripherals, programming the MSP430 Launch pad from Texas Instruments will be used to illustrate these concepts. This tool is based on MSP430 microcontroller and has number of on-board components (buttons, LED, etc).

About Cranes Software International Limited

Cranes Software International Limited provides Enterprise statistical analytics and Engineering Simulation software, software Products and solutions for clients across the globe. The company's business interests span Products, Productized solutions, Services and R&D in future technologies. Also Cranes Software International Limited is the Sole Authorized Partner for Texas Instruments India University Program to set up Laboratories with MSP430, DSP (Digital Signal Processing) and Analog Development Tools. Cranes Software has 15 years of experience in Scientific & Engineering Product Sales & Services which has resulted in 1500+ Engineering Colleges as customers across India.

About BMS College of Engineering

The BMS College of Engineering (BMSCE) was founded by a great visionary and philanthropist Late Sri. B. M. Sreenivasaiah (BMS) in the year 1946. After the demise of the founder, Sri.B.S.Narayan the illustrious son of the Founder took over the reins of the College. Under his able leadership, the college grew from strength to strength. BMSCE is the first engineering college established in the country (pre independent India) by a private enterprise. The college is an aided institution (by Government of Karnataka) and affiliated to Visvesvaraya Technological University (VTU). BMSCE offers 13 UG, 12 PG & Research programmer. The College became an autonomous institution under VTU in the year 2008-09. In the year 2011, BMSCE was recognized as a QIP Centre in Engineering & Technology by All India Council for Technical Education (AICTE). The College is

one among the 14 Engineering Colleges in the State qualified for Phase-2 of the Technical Education Quality Improvement Programme (TEQIP), a world bank sponsored project. BMSCE is the only partner institution from India along with the other universities located in Chile, China, Germany and USA for the Melton Foundation, USA. The Melton Foundation advocates Global citizenship programmers' for the selected graduating students in its campuses.

About Department of Medical Electronics

The college established the branch of Medical Electronics in 1992 to expand its academic horizon in the fast growing field of healthcare technologies. Having batch strength of around thirty and with an experienced and well qualified faculty, the college has laid its focus to impart synergistic education in the field of medical electronics and life sciences to translate it into real world applications. The institution has thus been able to contribute a large pool of talented biomedical engineers into the industry.

Workshop Organizers

Dr H N Suma, Convener, Professor & Head, Department of Medical Electronics, BMSCE, Bangalore- 560 019, Karnataka. Tel: 080-26622130-135 Extn: 127 Mob: **+919448394974** Email: hnsuma@yahoo.co.in Prof Abhishek Appaji M Co-Convener, Assistant Professor, Department of Medical Electronics, BMSCE, Bangalore- 560 019, Karnataka. Tel: 080-26622130-135 Extn: 6007 Mob: **+919844923632** Email: <u>abhishek6675@gmail.com</u> <u>abhishek.mee@bmsce.ac.in</u>

Registration

Participation is for the faculties, Research Scholars and PG students from colleges/ universities from Medical Electronics, Electronics, Electrical, Telecommunication, Instrumentation and allied branches. The participation is also open to the industry professionals. The registration is limited for 50 Participants on first come first serve basis.

The Registration Fee is as follows:

- 1. Faculties : Rs.2000 /-
- 2. Full time Research Scholars and PG Students: Rs. 1500/-
- 3. Industry Participants: Rs. 3000/-

The mode of Payment can be through DD or Cash to the Co-Convener. The Demand Draft should be in favour of *"HOD, Medical Electronics, BMSCE"*. The filled scanned registration form and DD should be emailed to <u>abhishek6675@gmail.com</u> and the hardcopy to be posted to address mentioned above on or before 25th June 2013.

Note:

- Participants are informed to bring laptops for Hands on sessions.
- No TA / DA or accommodation will be given to the participants.
- All participants will receive one MSP430 Launch Pad.
- Faculty participants will receive the book titled "MSP430 Microcontroller in Embedded Systems Projects".

Important Dates

Last Date for receipt of registration form	: 25/06/2013
Confirmation to participants by e-mail	: 28/06/2013

List of Resource Persons

1.	Dr C P Ravikumar, Texas Instruments, India	7. Mr Vinay Kumar, Cranes , Bangalore
2.	Mr Sagar Juneja, Texas Instruments, India	8. Mr Sathyapratha, VisSim Solutions
3.	Mr. Vaibhav Ostwal, Texas Instruments, India	9. Mr Abhishek Appaji M, BMSCE, Bangalore
4.	Mr Narendra Babu, Cranes, Bangalore	10. Mr Bhanuprashanth, BNMIT, Bangalore
5.	Mr Umesh, Cranes, Bangalore	11. Mr Manjunath, Infosys Technologies, Bangalore
6.	Mr Azar, Cranes , Bangalore	12. Mr. Suraj Shanbhag, Robert Bosch, Bangalore
4. 5. 6.	Mr Narendra Babu, Cranes, Bangalore Mr Umesh, Cranes, Bangalore Mr Azar, Cranes , Bangalore	10. Mr Bhanuprashanth, BNMIT, Bangalore 11. Mr Manjunath, Infosys Technologies, Bangalore 12. Mr. Suraj Shanbhag, Robert Bosch, Bangalore

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	venue: BMS College o	of Engineering, Bangalore			
Fill out the following a	details and e-mail them to <u>abhis</u>	hek6675@gmail.com as well	as post it before <u>25th June '13</u>		
Name:					
Department:					
•					
Institution:					
Affiliation: Engineering Teacher / Professional / Post-graduate Student (Give Details)					
Address:					
Cell Phone:					
E-mail:					
DD Date / Bank Name /	' Amount:				
Recommendation of a Faculty member / HoD (mandatory)					
I,	, Department of	, certif	y that		
is a bonafide faculty/s Processing"	student of our college and reco	mmend him/her for the pro	gram "Analog and Embedded		

Name of the faculty/HOD and seal of the college:

Signature of the faculty/HOD: ______