

The objective of TI's University Analog Program is to introduce cutting edge Analog technology into Indian academia through focused and targeted training.

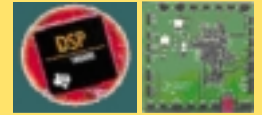
The participants are faculty from selected colleges across India.

The goal of this three-day workshop is to expose faculty to *system-level design* using TI DSP, TI Microcontrollers, Data Converters, and Audio Codecs. The course will include lecture classes, demonstrations, and hands-on.

Faculty who will take part in this program will carry back with them a unique experience in system design and interfacing analog subsystems to the digital processor.



TI India University Analog Program Three-day Workshop on Audio Codecs and Data Converters



June 16-18, 2008

Venue: Jadavpur University, WB, India

Sponsored by

Texas Instruments India

Tata Consultancy Services

Supported by

Jadavpur University and VLSI Society of India

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যাদবপুর বিশ্ববিদ্যালয়



Dr. Bobby Mitra, M.D. Texas Instruments India



Texas Instruments India is proud to support the University Analog Program. The program has a noble and very important goal of bridging the gap between the Universities and Industry. I am excited about the program being planned in Jadavpur University during the summer of 2008: System Design and Analog Interfacing – a topic that even experts acknowledge as a major challenge! As a world leader in Analog, DSP, and Microcontroller products, TI is keen to support the growth system design competency in India. I am sure both the faculty and TI India professionals will benefit from this unique interaction!

Workshop Committee

C.P. Ravikumar , TI India	Coordinator
S K Sanyal , Jadavpur University	Coordinator
Supriyo Palit , TI India	Coordinator
K. Radhakrishna Rao , TI India	
Poornima Mohanachandran , TI India	
S. Janakiraman , TI India	
Anand K , TI India	
Uttam Agarwal , TI India	
S.K.Sandeep , TI India	
Gaurav Jain , TI India	

Program Schedule

Participants must report to the registration desk on June 16-18 at 8.45 AM. Participants must make their travel arrangements accordingly. The morning tutorial session begins at 9.30 AM and concludes at 1.00 PM on all days. The afternoon lab session begins at 2.00 PM and concludes at 5.15 PM on all days. There will be a lunch break (1.00 PM – 2.00 PM) and two coffee breaks (11.00 AM – 11.30 AM and 3.30 PM – 4.15 PM) on all days.

On the first day, a brief inauguration ceremony is planned. Certificates of participation will be distributed in the valedictory function planned on the last day. Participants must ensure that they are present to collect their certificates. Course notes/handouts will be made available on a daily basis. Discussions on curriculum are planned during the course and selected faculty will be requested to make short presentations on the current curriculum.

Advanced Technical Program: June 16 – 18, 2008

	Morning (9.30 AM – 1.00 PM) Venue – Vivekananda Hall, Raja S. C. Mallik Road, JU	Afternoon (2.00 PM – 5.00 PM) Venue – Networking Lab
Day 1	09.00 AM – 9.30 AM 09.30 AM – 10.00 AM 10.00 AM – 11.00 AM	02.00 PM – 4.00 PM 04.30 PM – 5.30 PM 05.30 PM – 6.30 PM
	Registration Inauguration A perspective on Analog System Design (K.Radhakrishna Rao)	Introduction to TI Ultra low-power Microcontroller MSP430 (Gurjit Singh Gill, Gill Instruments)
	11.30 AM – 12.30 AM	Introduction to Analog Lab-in-a-box (Gaurav Jain)
	Exploring the SPICE Simulator – TI TINA (SK Sandeep)	Hands-on Lab on TI TINA (Sandeep SK)
Day 2	09.30 AM – 10.00 AM 10.00 AM – 11.30 AM 12.00 Noon – 1.00 PM	02.00 PM – 05.00 PM 05.00 PM – 5.30 PM
	Introduction to TI Analog Products (Anand K)	Demo of applications on Codec EVM (Uttam Agarwal)
	Introduction to Audio Codec ICs (Anand K)	Case Study of Interactive Set Top Box developed by TCS on TI Da Vinci platform (Debnarayan Kar, TCS)
	Introduction to Codec EVM (Uttam Agarwal)	
Day 3	09.30 AM – 10.30 AM 10.30 AM – 11.30 AM 12.00 AM – 1.00 PM	02.00 PM – 3.00 PM 03.00 PM – 3.30 PM 04.00 PM – 4.30 PM 04.30 PM – 5.00 PM
	Introduction to TI DSP Kits (Vinod Geo Thomas)	Demonstration of System Design Experiments (Supriyo Palit)
	Interfacing DSP with Audio Kits (Supriyo Palit)	Analog/System Curricula in Universities - Participating faculty (Poornima)
	Interfacing DSP with Audio Kits (Supriyo Palit)	Workshop feedback and future plans (Poornima) Distribution of certificates (Poornima)

Please also register online at <http://vlsi-india.org/vsi/activities/reg.shtml> apart from sending the filled hardcopy of [registration form](#).



ABOUT THE FACULTY

Faculty

Anand K



Profile

Anand K is a lead engineer at TI India. He is a member of Group, Technical Staff in TI Tech Ladder. He has been with TI India since 1996. Anand obtained his MSc (Engg) from IISc Bangalore in 1996 and a B.Tech in Electrical Engineering from IIT Madras in 1993. His current interests include Analog IC design, Data Converters, and Low Power Audio IC design. He was part of the faculty team, which has taught Analog 101 (Introduction to Analog IC Design) in TI India Technical University.

Contact: anandk@ti.com

Gurjit Singh Gill

Gurjit Singh Gill is the Director /Design Head, at Gill Instruments Bangalore, a third-party company of Texas Instruments. He has 7 years of work experience in the field of embedded systems. He has worked as an Embedded Design Engineer for G.E Power controls Bangalore, and also at Bajaj Auto, Garware Polyester, and Cosmo films; Everest Kento Cylinders, Vatan Textile, and Jacob Muller (India) Pvt. Ltd. He presented a keynote speech, *Embedded system design using MSP430* and conducted tutorials on *Single chip Filter*, at the Texas Instruments Developer conference during 2004-2005. He has worked on wireless Acoustic sensors using MSP430 for Fire Alarm system, implementing Filter algorithm and echo cancellation techniques. He has designed one of the first development tools to support Acoustic sensor interface that employed the on board microphone and low power amplifier with wire/wireless interface. Currently he is working on TCP/ IP, USB and wireless protocols.

Uttam Agarwal is part of the Mixed Signal Technology Center (Audio) group in Texas Instruments, Bangalore, India. He has conducted several training programs based on TI audio products for both customers and for universities.

Contact: uka@ti.com

Uttam Agarwal



Vinod G. Thomas

Vinod Geo Thomas is a Senior Software Engineer at Cranes Software International Ltd. He completed his M.Tech in Telematics & Signal Processing from NIT (Rourkela). His focus area is speech/audio algorithms on TMS320C6000 architectures. In his professional experience of over 5 years, he has conducted numerous trainings on TI processors and speech applications for corporates and academia.

Sandeep SK has a B.Tech. in Electronics and Communication Engineering from NIT (formerly REC) Calicut. He is with TI India since 2004. His interest is in Analog EDA. He has conducted training programs on SPICE simulation.

Sandeep SK



Faculty

K. Radhakrishna Rao



Profile

K. Radhakrishna Rao is a Distinguished Member of Technical Staff (Emeritus) at TI India. He was with the Department of Electrical Engineering, IIT Madras, during 1971-2006 before he joined TI India. He obtained his Ph.D. (EE) from IIT Kanpur (1971) and B.Tech (EE) from IIT Madras (1966). His current interests are in analog IC design and continuous-time filters. He has taught Analog 101 (Introduction to Analog IC Design) and Analog 203 (Analog Filters) in PragaTI.

Contact: krk Rao@ti.com

Supriyo Palit is an applications engineer in TI India. His professional experience includes 11 years in the area of speech/audio/video processing, wireless communications and networking, TI processors, and TI analog codecs. Supriyo has an M.E. in Electrical Communications Engineering. His current interest is Audio Signal Processing. He has taught courses on digital filter design and Bluetooth systems in PragaTI.

Contact: riyo@ti.com

Supriyo Palit



Debnarayan Kar

Debnarayan Kar received his Bachelor of Engineering degree in Computer Science & Engineering in 1995 from National Institute of Technology (formerly REC) Durgapur. After that he worked in UBEST until 1998 where he worked to develop Billing and Mediation software for cellular telecom operators. From 1998 to 2000 he worked in the development team of enterprise network management software Unicenter TNG in Computer Associates TCG Software (CATS). Between 2000 and 2007 he was part of the R & D team of Marconi and Ericsson for their cellular network planning & optimisation solution Planet DMS and Planet EV. During this tenure he contributed to bring out some of the major releases of Planet DMS and Planet EV which were accepted by more than 130 customers globally. Since January 2007 he is in TCS where is primarily focussing on customer projects and R & D initiative in wireless telecommunication and multimedia areas.

Gaurav Jain

Gaurav Jain works for Texas Instruments India.

