



Texas Instruments Tech Day Brazil 2010 Abstracts

Track & Course	Presenter	Abstracts
S. Paulo Room		
Considerations for Choosing the Right TI ARM-Based Microprocessor	Alejandro Erives	TI has introduced many new processors based on the Cortex-A8 and ARM9 architectures. This session compares ARM-based MPU options and guides you through the decision-making process. Learn the technical components that are included as part of these cores. In addition, learn about the scalability of the different architectures.
Power Supply Tips and Tricks	Robert Taylor	This power supply course will take you through years of knowledge of tips and tricks the TI's power supply team has come up with after years of designing power supplies. You will come out of this session amazed!
Customer Design Considerations for the Low-Power RF System	Rea Schmid	This course will go through the design considerations and trade-offs a designer would need to go through for LPRF systems. Network topology, available standards, frequency bands, sustainable data rates and power considerations will be covered in this training. Competitive info will also be covered.
Essential Concepts in SoC System Design	Martin Burgos	Learn how to successfully develop with TI's ARM™, OMAP™ and DaVinci™ devices. This session will provide a hardware overview as well as a dissection of software architecture. Attendees will gain an understanding of TI delivered software components (OSs, LSP, codecs) use cases, collateral and support paths, and system integration.
Signal Processing Code Generation	Alberto Shimahara	Signal Processing code generation with Mathworks Tools and Texas Instruments environment.



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Jd. Europa Room		
High Performance Analog for Motion Control	Tom Hendrick	In motor-control applications where current monitoring and positioning information is critical to the design, performance of the system is dependent on the accuracy of the analog components found within the control loop. Many modern digital processors have embedded analog components that help ease the control system design, but the performance of these embedded analog components may not meet system specifications. This presentation will highlight simple methods to improve the accuracy of motor-control systems using external voltage references, by using high-performance operational amplifiers for level-shifting and signal conditioning, or by adding high-speed simultaneous sampling ADCs.
TI's Efforts in Motor Solutions	Tom Hendrick	TI provides a broad range of analog products, digital controllers and software to precisely control the position, velocity and torque of mechanical drives. Motor control and drive solutions are available for a wide range of applications, from small integrated motors or solenoids to high-voltage AC motors used in high-power industrial applications. TI's products are designed to offer a complete solution, whether you're building precision medical instrumentation, next-generation smart toys or heavy production machinery. We'll focus on understanding basic motor types and advantages in different applications, as well as which TI products fit these applications.
Methods of Achieving Power Factor Correction for LED Lighting Solutions	Richard Garvey	Traditional methods for providing power factor correction in switching power supplies can be used in offline LED drivers. However, for low-power applications (< 10W), the traditional methods are more complicated and provide correction greater than required. This training discusses some alternative approaches to traditional boost-type power factor correction schemes. These include passive techniques (inductive and valley fill) and active techniques (buck and buck-boost).
TI Lighting Power Solutions Overview	Richard Garvey	This training will present an overview of the general LED light solutions available to promote. The solutions will be for residential, commercial, outdoor and infrastructure lighting solutions. Both AC/DC and DC/DC solutions in the forms of reference designs, EVMs and products will be discussed. Solutions from both Analog (LPP, SWIFT, LPRF, DLS) and Embedded Processing (MCU) will be presented.



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Ibirapuera Room		
Piccolo Half-Day Hands-on Workshop PART 1	Jeffrey Stafford	The TMS320C2000 DSP Piccolo MCU half-day workshop is a hands-on technical course that will cover the Piccolo MCU family of the C2000 platform. The workshop steps users through system initialization, peripheral setup and programming an application into flash memory using the flash plug-in utility. You will also learn about the features of the new control law accelerator (CLA).
Piccolo Half-Day Hands-on Workshop PART 2	Jeffrey Stafford	
Stellaris Processor Human Machine Interface (HMI) Hands on Workshop PART 1	Alessandro Cunha	This is a combined lecture and hands-on lab session. The initial lecture provides an overview of the Texas Instruments software development kit (SDK) and the open embedded Linux platform, Arago. The lab portion includes a prerecorded demonstration of an open embedded build of the Arago distribution, followed by a lab in which attendees will rebuild a Linux kernel module, download it to the development platform, and dynamically insert it into the Linux kernel. Although the hands-on lab is based on the TMS320AM3517, the concepts presented are applicable to all of TI's ARM/Linux platforms.
Stellaris Processor Human Machine Interface (HMI) Hands on Workshop PART 2	Alessandro Cunha	