# Track 1 – Product or Technology choice

## AC/DC supplies

Today applications require more power density and even higher efficiency in AC/DC supplies; this track will show innovative solutions such as interleaved PFC and intermediate bus architecture to be beneficial for today's designs.

## Motor Control solutions with 32-bit MCUs

This presentation will show how versatile the TI Piccolo™ and Delphino™ platforms are for implementing motor control. On the development side, MathWorks will give an introduction to simulation concepts using Simulink as an algorithm tool for motor control applications, and you will learn how to deploy your algorithm to a TI C2000™ processor quickly and efficiently, with a demonstration of code development and generation. A Permanent Magnet Synchronous Motor (PMSM) for Motor Control applications will be modeled and the design will be implemented on a F28335 eZdsp™ platform. C2000 peripheral programming, scheduling, processor in loop (PIL) code verification and processor-specific optimizations will also be covered.

## New MSP430 devices for industrial applications

Discover new peripherals like USB, new industrial sensor technologies, new devices based on FRAM memory and new integrated LP RF connectivity.

## LED Lighting: Drive Circuitry and More

As LED design quickly expands into the general lighting marketplace, a key component, the LED driver, is often overlooked. This session covers the aspects of a HB LED lighting system and the unique circuitry that drives it.

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# Track 2 – Product or Technology choice

[ARM Cortex A8: The TI way to high performance ARM implementation](#)

Overview of the Cortex A8 core (by ARM) and application examples to help make your product selection in industrial and portable areas.

[Shorten your development time with your Linux based application](#)

TI has supported the use of embedded real-time operating systems in digital space for many years with the DSP/BIOS kernel. As DSP based solutions have evolved to include ARM® processors to complement the DSP, high-level operating systems, particularly Linux, have emerged on the scene as a key requirement. As such, TI is supporting Linux on DaVinci™ digital media processors and OMAP™ applications processors. During this session you will learn more on how TI helps significantly shorten the development cycle by providing open source developers a more streamlined software development process.

[Sensors and the Analog Interface](#)

In this presentation we will discuss the way to monitor many different physical phenomena, such as temperature, air flow, humidity, and power. We will discuss numerous sensor characteristics and the various styles of sensor signal conditioning.

[Automotive solutions from Texas Instruments](#)

An introduction to solutions from Texas Instruments to Automotive market, from RF-id to Logic, from Controllers to Analog Ics

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# Track 3 – Technology/Product implementation

[Motion Drive & Control Analog solutions](#)

The presentation will cover the basics of the different types of motor, the drive techniques, some of the closed loop control / protection considerations (speed, torque, phase, duty cycle etc.).

[RF-ID](#)

Attendees in this session will learn about the strengths and weaknesses of passive LF, HF, UHF, and active RFID (low power wireless) as well as how to select the appropriate technology for a given application. You will get an overview of the current RFID

[Processors for computation intensive industrial applications](#)

TI ARM and ARM+DSP based industrial processors, with the right set of peripherals and sw to implement different protocols. Processing workload scenarios and optimization tips.

[Getting Started with SimpliciTI® and the eZ430-RF2500](#)

The module gives an overview of the components of the SimpliciTI network stack and their interaction in a SimpliciTI network in addition to hands on portion and covers setting up a SimpliciTI network

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# Track 4 – Design enhancement/recommendation

Adding Low-Cost Multimedia Capabilities to your existing design

An introduction to multimedia SoCs and how to easily integrate them to your existing systems. How to avoid pitfalls and care-abouts. A story of a design engineers challenges and how he overcomes issues.

Circuit Isolation Techniques and Implementations

Introduction to the concept of isolation; why this is needed and in what are the applications where we can find it. Most common isolation techniques available on the market highlighting the advantages and disadvantages.

Low power RF system design

There are several aspects to consider when designing an RF system. This presentation discusses: Regulations, selecting the right protocol, how to select correct IC for the application, and some HW design considerations.

Tackling EMI and RFI at the Board and System Level

ESD issues: explanation of the standard ESD (Electrostatic Discharge) test methods, including IEC61000-4-2. EMI issues are becoming the most common cause for redesign nowadays. Pitfalls and how to avoid these issues.