

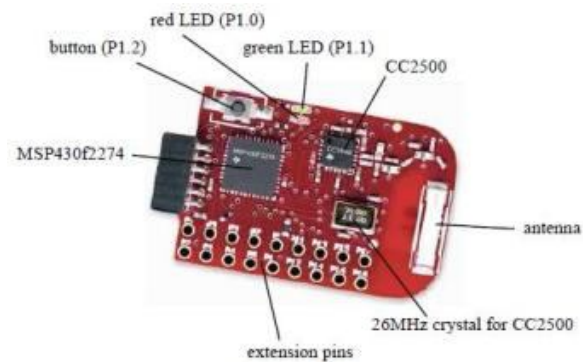
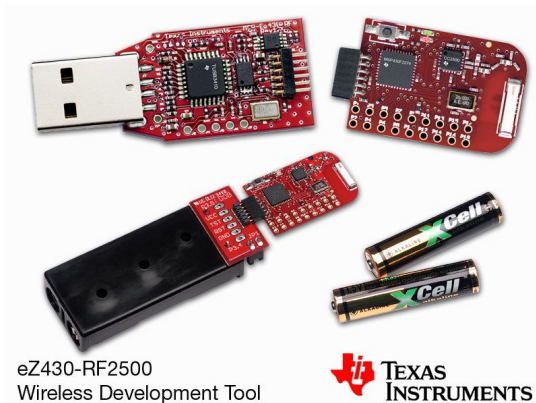
# Hands-on Tutorial on “Building Low Power Embedded Systems using MSP430 and Low Power RF components”

26<sup>th</sup> July 2010 | 9.30am – 5.30pm | PESIMSR

by

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Modern embedded systems use wireless communication to exchange messages among one another or with a central controller. In wireless sensor networks, the nodes of the sensor network are often separated by short distances which can be covered using low power RF communication. Since the nodes are powered by batteries, it is important that the power required for the communication is as low as possible. Special low-power protocols such as SimpliciTI and Zigbee have been invented for this purpose. In this workshop, the intention is to expose student community to the concepts of embedded systems, sensor networks, and low-power RF communication. The eZ430-RF2500 tool from Texas Instruments will be used to illustrate these concepts. This tool is based on MSP430 microcontroller and the CC2500 radio communication chip capable of RF communication in the frequency band centered at 2.4GHz. The workshop will include both lectures and hands-on components. In the lectures, we will cover aspects of Low Power VLSI Design, MSP430, and Low Power RF communication. The Students will be permitted to carry out hands-on experiments on the eZ430-RF2500.

## About the Speaker:



Atul Lele completed his Bachelor of Engineering from Pune Institute of Computer Technology (PICT) in 2000. He is currently working as a Project Leader with MSP430 design group. He has been working on MSP430 for past 4 years and prior to that he that worked on C2000 based digital signal controllers. He has got expertise across different domains in the Chip Design Flow. E.g. Front-end verification, Silicon validation, RTL design, Synthesis and STA, Layout, Power estimation, Analog and Mixed signal simulations etc. He has done a few paper presentations at internal and external conferences. He is very passionate about being part of MSP430 design team. This is especially looking at different applications spaces where MSP430 can be a clear advantage over its counterparts and significant benefits MSP430 offers in terms of power, performance and cost.