

# Download Introduction To Microcontroller Lecture Notes

CprE 211 Lecture Notes - 6 - 2001-2002 1 Introduction 1.1 Cpr E 210 Review Basic logic – AND, OR, NOT, XOR, NAND, NOR OR NOT AND NAND NOR XOR Combinatorial logic – logic combines to give a result Logic can be simplified by either algebraic reduction or other techniques 1.1.1 Karnaugh Maps (K-Maps) Technique to simplify logic Introduction to Microcontrollers Lecture Notes This note covers the following topics: Cpr E 210, Embedded Programming, Real-time software, C Programming, Computer Architecture, Simplified Instruction Execution Cycle, PowerPC Assembly Language, I/O Subsystems, Interrupts, Periodic Interrupt Timer, MPC 555 Interrupt System. INTRODUCTION 5 its development, which increases the performance demands even more. For small 8-bit controllers, however, only the application has to be considered. Here, rough estimations can be made for example based on previous and/or similar projects. The basic internal designs of microcontrollers are pretty similar. This book has been developed for the introductory courses on microcontrollers. It introduces undergraduate students to the field of microcontrollers - what they are, how they work, how they interface with their I/O components, and what considerations the programmer has to observe in hardware-based and embedded programming.