Mindluster Platform

About the course FPGA based signal processing systems

Course Presenter : IIT Roorkee July 2018

This FPGA based signal processing systems online course offers a comprehensive training experience designed to elevate your engineering skills and enhance your career prospects. Focused on the integration of Field Programmable Gate Arrays (FPGAs) in signal processing, this certified course provides in-depth knowledge and practical expertise to meet the demands of modern engineering projects. Whether you are an aspiring engineer or a seasoned professional in the Middle East or globally, this training course is tailored to empower you with advanced technical skills that are highly valued in todayâ€™s competitive job market. Throughout this course, you will learn to design, implement, and optimize signal processing systems using FPGA technology. Gain hands-on experience with FPGA development tools, hardware description languages, and real-world applications in communications, aerospace, defense, and consumer electronics. The course emphasizes both theoretical foundations and practical implementation, ensuring you can confidently apply your skills in professional environments. This course is ideal for engineering students, professionals, and industry specialists seeking to deepen their understanding of FPGA-based signal processing. If you are looking to expand your technical skill set, achieve certification to validate your expertise, and accelerate your career growth, this training course is the perfect choice. Choosing this course on our platform guarantees access to high-quality content curated by industry experts, flexible online learning, and a globally recognized certificate upon completion. Our platformâ€™s reputation for professional development makes it easier for you to stand out in the competitive engineering field. Completing this certified course opens up a range of career opportunities in sectors such as telecommunications, aerospace, defense, and electronics manufacturing. Enhance your professional profile, increase your employability, and position yourself as a skilled FPGA signal processing engineer ready for the challenges of modern technology. Enroll today to start your journey towards advanced engineering expertise and unlock new career possibilities with a recognized certification. IIT Roorkee July 2018

Engineering Category's Courses

Course Lesson(72)

Lesson 1 : **Promo Video of FPGA Based Signal Processing Systems by Prof P Sumathi**

Lesson 2 : **Lecture 1 Introduction to FPGA**

Lesson 3 : **Lecture 2 Technology Review Part 1**

Lesson 4 : **Lecture 3 Technology Review Part 2**

Lesson 5 : **Lecture 4 DSP and Integrated Design Suites**

Lesson 6 : **Lecture 5 Introduction to Verilog**

Lesson 7 : **Lecture 06 Verilog**

Lesson 8 : **Lecture 07 Modelling of Digital Circuits**

Lesson 9 : **Lecture 08 Modelling of Digital Circuits and Testbench Part 1**

Lesson 10 : **Lecture 09 Modelling of Digital Circuits and Testbench Part 2**

Lesson 11 : **Lecture 10 Testbench Simulation and Synthesis**

Lesson 12 : **Lecture 11 Structural Modelling of Combinational Logic**

Lesson 13 : **Lecture 12 Dataflow Modelling of Combinational Logic**

Lesson 14 : **Lecture 13 Behavioral Modelling of Combinational Logic**

Lesson 15 : **Lecture 14 Simulation of Combinational Logic Circuits Part 1**

Lesson 16 : **Lecture 15 Simulation of Combinational Logic Circuits Part 2**

Lesson 17 : **Lecture 16 Sequential Logic Circuits Part 1**

Lesson 18 : **Lecture 17 Sequential Logic Circuits Part 2**

Lesson 19 : **Lecture 18 Blocking and Non Blocking Statements**

Lesson 20 : **Lecture 19 Sequential Logic Circuits Blocking and Non Blocking Statements Counters**

Lesson 21 : **Lecture 20 Counters and Shift Registers**

Lesson 22 : **Lecture 21 Finite State Machines Part 1**

Lesson 23 : **Lecture 22 Finite State Machines Part 2**

Lesson 24 : **Lecture 23 Finite State Machines Sequence Detector**

Lesson 25 : **Lecture 24 FSM Verilog Modules of Sequence Detector**

Lesson 26 : **Lecture 25 FSM Counters**

Lesson 27 : **Lab 1 Combinational Logic Circuits Simulation**

Lesson 28 : **Lab 2 Sequential Logic Circuits Simulation**

Lesson 29 : **Lab 3 Finite State Machines Simulation**

Lesson 30 : **Lecture 26 Memory Banks**

Lesson 31 : **Lecture 27 FSM Modelling Styles**

Lesson 32 : **Lecture 28 FSM Modelling Styles and Timing Control**

Lesson 33 : **Lecture 29 Timing Controls Part 1**

Lesson 34 : **Lecture 30 Timing Controls Part 2**

Lesson 35 : **Lab 4 Timing Controls Simulation**

Lesson 36 : **Lecture 31 Synthesis of Combinational Logic Circuits**

Lesson 37 : **Lecture 32 Synthesis of Sequential Logic Circuits Part 1**

Lesson 38 : **Lecture 33 Synthesis of Sequential Logic Circuits Part 2**

Lesson 39 : **Lecture 34 Synthesis of Sequential Logic Circuits Part 3**

Lesson 40 : **Lecture 35 Synthesis of Finite State Machines**

Lesson 41 : **Lab 1 Part2 Combinational Logic Circuits Implementation**

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