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Ref: KLEF/RO/ECE/CIRCULAR **Date: 13-10-2020**

CIRCULAR

Sub: Organizing event "Workshop" for the students of Electronics and Communication Engineering, of Vaddeswaram Campus of KLEF – Reg.

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This is to inform that the Department of Electronics and Communication Engineering, KLEF, is Organizing a "Workshop on FPGA Design and Prototyping: From Concept to Implementation" for the students of Electronics and communication Engineering, Vaddeswaram Campus of KLEF on, 16-10-2020, as details below:

Event Name: "Workshop"
Date: 16-10-2020
Venue: R-106

All the students of ECE, are invited to attend this program.
Dy-HOD's & Year coordinators are requested to bring this information to the attention of all ECE students and encourage them to participate in this program.

HOD-ECE
Professor & Alternate HOD
Department of ECE
K L University
VADDESWARAM
Guntur Dt., A.P., India

To
All ECE Students,
All ECE Faculty,
Principal.

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Expert talk On "FPGA Design and Prototyping: From Concept to Implementation"

By

Always@VLSI

Department Of ECE

Name of the event:FPGA Design and Prototyping: From Concept to Implementation
Dates:16-10-2020

Venue: **R106**

No. of students participated: 43

Objective of the event:

The objective of the workshop "FPGA Design and Prototyping: From Concept to Implementation" is to provide participants with a comprehensive understanding of Field-Programmable Gate Array (FPGA) technology, design methodologies, and prototyping techniques. The specific objectives include:Understanding FPGA Fundamentals: Provide participants with a solid foundation in the fundamental principles of FPGA technology, including architecture, resources, and configuration methods.

Mastery of Design Tools: Familiarize participants with FPGA design tools and software, such as Xilinx Vivado, Intel Quartus Prime, and MATLAB/Simulink, enabling them to develop, simulate, and implement FPGA-based designs effectively.Design Methodologies: Introduce participants to FPGA design methodologies, including RTL (Register Transfer Level) design, behavioral modeling, and high-level synthesis (HLS), enabling them to choose the most appropriate design approach for their applications.Hands-on Experience: Offer hands-on experience through practical exercises and projects, allowing participants to apply FPGA design principles and techniques to real-world design challenges, from concept to implementation.Prototyping Techniques: Teach participants how to prototype FPGA-based

designs using development boards and platforms, including design partitioning, interfacing with peripherals, and integrating external components.

Performance Optimization: Discuss techniques for optimizing FPGA-based designs for performance, power, and resource utilization, including pipelining, parallelism, and resource sharing.Verification and Testing: Address verification and testing methodologies for FPGA designs, including simulation, emulation, and hardware-in-the-loop (HIL) testing, ensuring the correctness and reliability of the final design.System Integration: Explore methods for integrating FPGA-based designs into larger systems, including interfacing with other devices, communication protocols, and system-level considerations.Case Studies and Best Practices: Present real-world case studies and industry best practices in FPGA design and prototyping, allowing participants to gain practical insights into successful design implementations and learn from real-world examples.Overall, the workshop aims to empower participants with the knowledge, skills, and tools necessary to develop, simulate, prototype, and implement FPGA-based designs effectively, from concept to implementation. Whether participants are new to FPGA design or seasoned professionals, this workshop offers valuable insights and practical guidance to enhance their expertise in FPGA design and prototyping.

Description of the event:

The workshop "FPGA Design and Prototyping: From Concept to Implementation" is a comprehensive program designed to provide participants with a hands-on understanding of Field-Programmable Gate Array (FPGA) technology, design methodologies, and prototyping techniques. FPGAs offer a versatile platform for implementing digital logic circuits, enabling rapid prototyping and development of complex digital systems. This workshop equips participants with the knowledge and skills necessary to effectively utilize FPGA technology in their design projects, from concept to implementation.

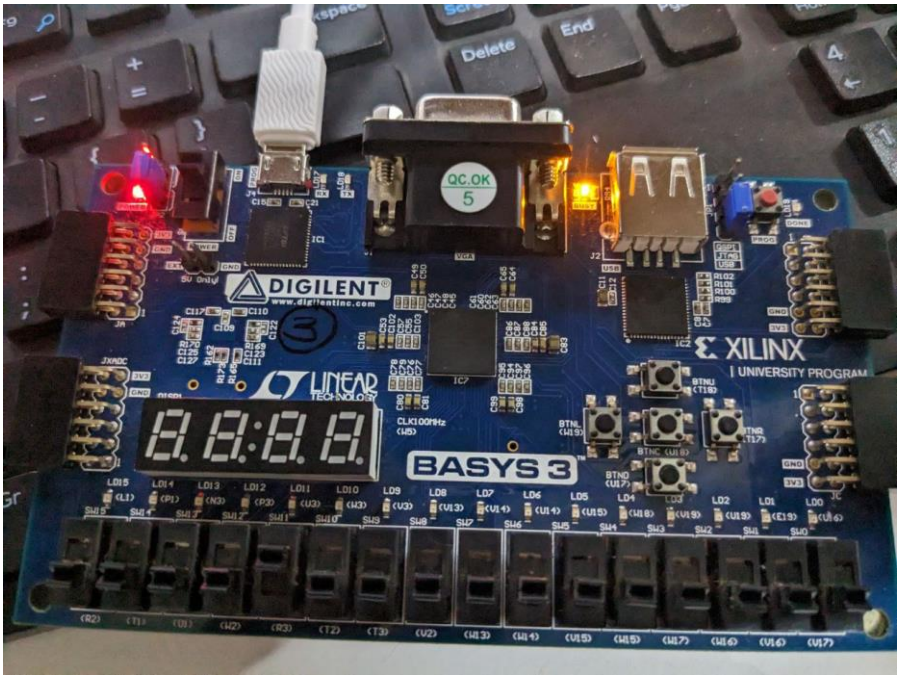
Throughout the workshop, participants will engage in a series of interactive sessions, lectures, demonstrations, and practical exercises led by experienced FPGA designers and instructors. The workshop will cover a wide range of topics, including FPGA fundamentals, design tools, methodologies, prototyping techniques, performance optimization, verification, and system integration.

Outcome of the event:

The outcome of the workshop will be participants who are well-equipped with the knowledge, skills, and tools necessary to develop, simulate, prototype, and implement FPGA-

based designs effectively, from concept to implementation. Whether participants are new to FPGA design or seasoned professionals, this workshop offers valuable insights and practical guidance to enhance their expertise in FPGA design and prototyping.

Photos of the event:



Working on FPGA boards

Participant's List:

S. No	Name of the Student	Register Number	Branch	Signature
1.	180049010	KADALI JAGADEESH	ECE	
2.	180049009	KILARU SAI PRASANTH	ECE	
3.	180049008	JAKKAMSETTI PAVAN PHANEENDRA MANIKUMAR	ECE	
4.	180049007	IRRINKI NAGA DURGA RAJESH	ECE	
5.	180049003	B SHIVA KUMAR	ECE	
6.	180040757	HARISH KUMAR DHARAVATH	ECE	
7.	180040743	MUDIYALA LOKESH REDDY	ECE	
8.	180040737	KADALI SAI SNEHA	ECE	
9.	180040726	MADENENI VENKAT CHANDU	ECE	
10.	180040721	MADHURI TAMMA	ECE	
11.	180040716	RANGISETTY LEELA KRISHNA	ECE	
12.	180040704	PERUMALLA GIRISH BABU	ECE	
13.	180040698	KURUGUNTLA TANUJA	ECE	
14.	180040695	KALIDINDI NAVEEN	ECE	
15.	180040692	S V SIVA KISHORE	ECE	
16.	180040679	MANNEPALLI VENKATA RAMARAJU	ECE	
17.	180040662	GADDAM VAISHNAVI	ECE	
18.	180040647	PREMITHA CHEEMAKURTHI	ECE	
19.	180040645	CHINTAPOODI PAVANKALYAN	ECE	
20.	180040641	SANAGAVARAPU SAIKUMAR	ECE	
21.	180040635	ATMAKURI KAVYA	ECE	
22.	180040604	VASIREDDY BALASARASWATHI	ECE	
23.	180040590	POLURU JEEVAN REDDY	ECE	
24.	180040585	JAMPANI YUGESH	ECE	
25.	180040582	JALDU VENKATA NAGA SASIDHAR	ECE	
26.	180040579	VADDEMPUDI SONY	ECE	
27.	180040576	SIDDINENI POOJA NAIDU	ECE	

28.	180040556	SHAIK LUBNA KOWSAR	ECE	
29.	180040552	NALAMASA SUSHURUTH	ECE	
30.	180040546	PAKANATI A PAVAN KUMAR	ECE	
31.	180040542	KONDAMURI SRI VENKATA SHANMUKHA PRIYA	ECE	
32.	180040534	GUNDAVARAM VARSHITH RAO	ECE	
33.	180049020	SHAIK THAHERUNNISA	ECE	
34.	180049014	SINGAMSETTY LOHITH NAGA SAI BRAHMENDRA	ECE	
35.	180049012	KONAKATI SAI KIRAN	ECE	
36.	180040577	DURUGADDA VEERA JANARDHANA ACHARI	ECE	
37.	170041042	ELURI DHATHRI	ECE	
38.	170041032	MANEPALLI SATYA SAI VITHAL TEJA	ECE	
39.	170041029	NIKHIL TEJA K	ECE	
40.	170041027	BANDARU AVINASH	ECE	
41.	170041024	VEERANKI JYOTHIRMAI	ECE	
42.	170041023	THORLIKONDA GOPI	ECE	
43.	170041019	RAJABOINA MANOJ MAHINISH	ECE	

In charge
Always@VLSI Technical Club

HOD-ECE
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