



**ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY**  
(Unit of Alva's Education Foundation (R), Moodbidri)  
Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New  
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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Report of Technical Talk-III**

**Topic: "FPGA and ASIC"**

**Resource Person:** Dr. Srinivasa Rao Udara

Associate Professor, STJIT

Managing Director BJV Tech . Ranebennur

**Date: 01-07-2024**

**Time: 11:00AM to 1:00 PM.**



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Mangalore, DK Karnataka State -INDIA.

**EVIONICS**  
Department of ECE

**DEPARTMENT OF ELECTRONICS & COMMUNICATION  
ENGINEERING**

organises

**"TECHNICAL TALK"**

On

**FPGA and ASIC**

**DATE: 01 JULY 2024**  
**TIME : 11:00 AM ONWARDS**

**RESOURCE PERSON: DR SRINIVAS RAO UDARA**  
**ASSOCIATE PROFESSOR,STJIT**  
**MANAGING DIRECTOR BJV TECH ,**  
**RANEENNUR**

**VENUE: CIVIL ENGINEERING SEMINAR HALL**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

Department of ECE conducted the third technical talk of the even semester 2023-24 on "FPGA and ASIC" by Dr. Srinivasa Rao Udara, Associate Professor, STJIT & Managing Director BJV Tech . Ranebennur on 01/07/2024.

Dr. Srinivasa Rao Udara presently Working as Associate Professor and R&D Head in the Department of Electronics and Communication Engineering, S T J Institute of Technology, Ranebennur, He carried out Research work from IISC Bangalore and IIT Bombay He received Distinguished Scientist award from Elsevier. He was Programme Advisory Committee Member for NIE, Andhrapradesh . He worked as Session Chair of 2nd International Conference on Advances in Computer Engineering & Communication Technology, Andhrapradesh. He is director of "BJV TECH HUB which is a core VLSI based company and offers the learning environment for the research scholar to learn by the practical hand. It has their own electronics project and team to deliver the project on time and by working on the live project offer the learning environment for the research scholar.



In his talk resource person pointed that creating and implementing a suitable hardware design defines the operability and efficiency of the entire product. Today, the range of integrated



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circuits and their design processes has considerably expanded, complicating the choice for product engineering and manufacturing. He told that FPGA is a field programmable gate array comprising numerous configurable interconnected logic blocks. It is possible to program this integrated circuit to perform the expected function like a graphics card or reprogram it so that the same circuit performs another action like a microprocessor. Such capabilities allow changing the existing product functionality by updating software without any manufacturing and physical design change. He discussed Advantages of FPGA such as,

- Capable of capturing more than one lakh designed gates.
- Standard interfaces are provided.
- It also provides built-in memories, processor cores, and many other things.
- It is cheap for small volumes because one does not need to pay for fabrication.
- Quite flexible.

In this talk he described that ASIC stands for Application Specific Integrated Circuit, built especially for a specific application or any purpose. If one compares this with any other device, it is having improved speed. Basically, it is an integrated circuit that is specified for one specific purpose. . He discussed Advantages of ASICs such as,

- It has improved speed when compared to any other logic device.
- It is quite efficient.
- It reduces space requirements.





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Resource person concluded that the choice of the right approach depends on project specifications, business requirements, and capabilities. The core characteristics you need to take into account are product complexity, expected production volume, available budget, prototype necessity, and market launch deadlines

Finally Dr. Ganesh VN, Associate Professor, department of ECE gave memento to the resource person and expressed gratitude for giving such an informative talk to the students.