SNS COLLEGE OF TECHNOLOGY

Coimbatore-35.
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A++' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

INTRODUCTION TO ARVR

I YEAR/ II SEMESTER

UNIT – I

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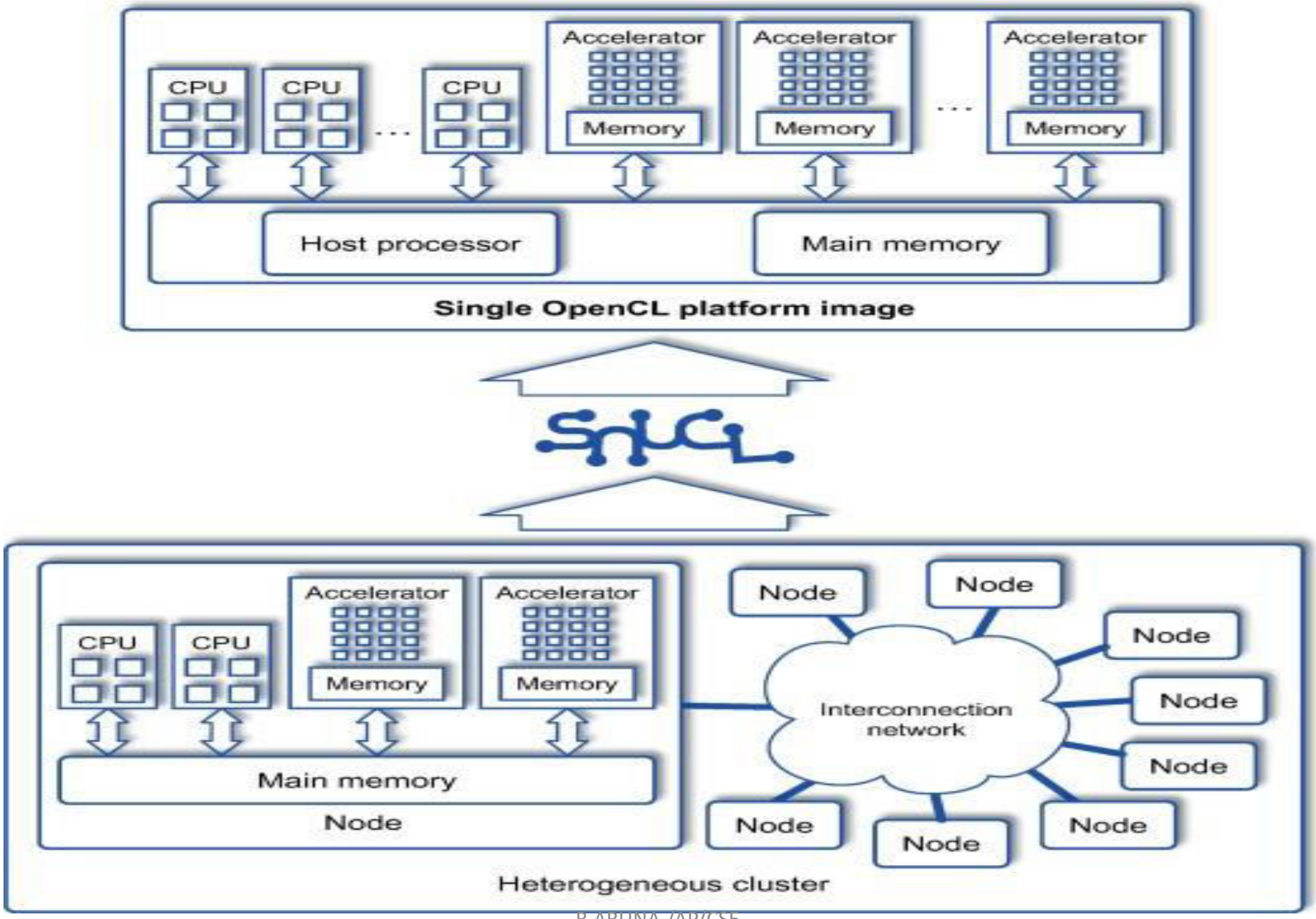
Heterogeneous User Interface

- Digitization in the industrial sector forms the basis for the integration of augmented reality (AR) .
- It promotes the shift from analog to digital data. For example, data sent to servers by machines or products throughout the production process are **processed digitally**.
- The development effort for companies needs to be lowered so that AR can become more widespread and naturally integrated into industrial workflows.
- The **high heterogeneity of the user interface** (UI) in commercially available head-mounted displays (HMD) makes it difficult for developers to find an ergonomically high-quality solution for the specific tasks in the production environment

Types of Heterogeneous User Interface

There are five types of Heterogeneous User Interface

- Multicore CPUs
- GPUs
- DSPs
- FPGAs
- ASICs


CPU
CPU
CPU
Accelerator
Memory
Accelerator
Memory
Accelerator
Memory
Host processor
Main memory
Single OpenCL platform image
SnuCL
CPU
CPU
Accelerator
Memory
Accelerator
Memory
Main memory
Node
Node
Node
Node
Node
Node
Node
Node
Node
Interconnection network
Heterogeneous cluster

Heterogeneous User Interface

- heterogeneous platforms with hardware accelerators have been the focus of recent research.
- One of the main tasks of a design flow involves the decision to map computations into software and/or hardware components.
- This task is traditionally known as hardware/software partitioning especially when the target system considers software components implemented in CPUs and hardware components synthesized from the input computations.