**OCNOC: EFFICIENT ONE-CYCLE ROUTER IMPLEMENTATION FOR 3D MESH NETWORK-ON-CHIP**

**Abstract:**

 Multiprocessor system on chip which is a most developed architecture with different features. One of the most important is networking. Networking which required high speed for the traffic permutation in which each input sends traffic to each output by using pipelined circuit switching network which is better compared with other on-chip network. The pipelined circuit switching offers guarantee of permuted data with dynamic path setup scheme for selecting arbitrary schemes. Another most important aspect is Low Power Analysis which mainly reduced the leakage and optimists the dynamic power.

**key words** - Pipelined circuit switching; traffic permutation; dynamic path setup scheme; arbitrary scheme; dynamic

**TOOLS:**

1. **XilinxISE 14.7**

**LANGUAGE:**

1. **VerilogHDL**