

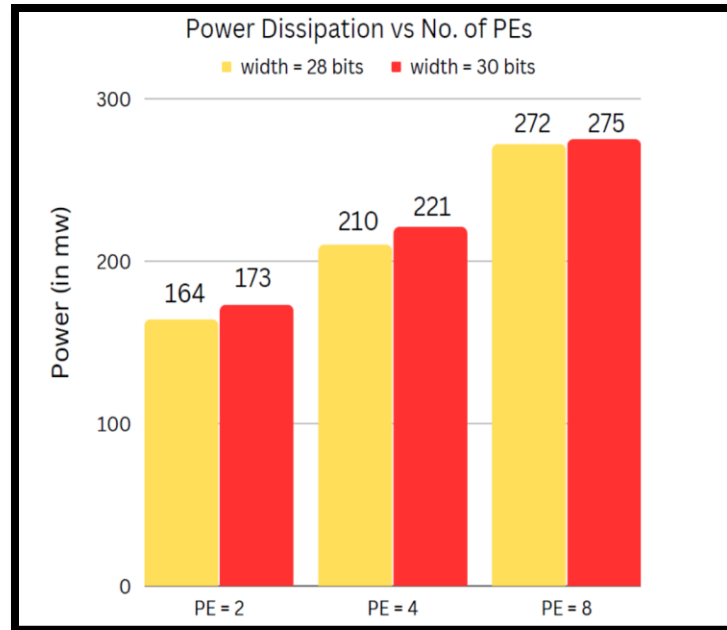
# Optimization of Parametric NTT Hardware Accelerator

**Aman Prajapati [MT2022501] [Aman.Prajapati@iiitb.ac.in]**

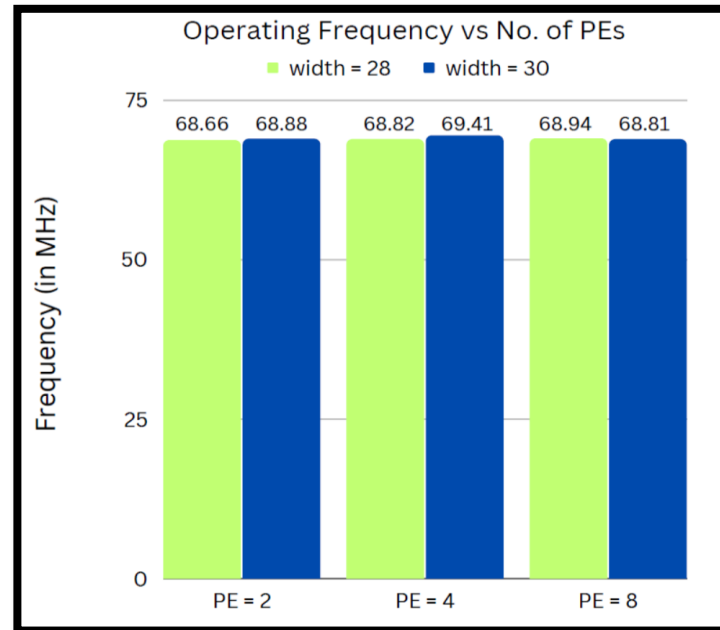
**Lokesh Maji [MT2022509] [Lokesh.Maji@iiitb.ac.in]**

# FPGA IMPLEMENTATION OF PARAMETRIC NTT HARDWARE ACCELERATOR

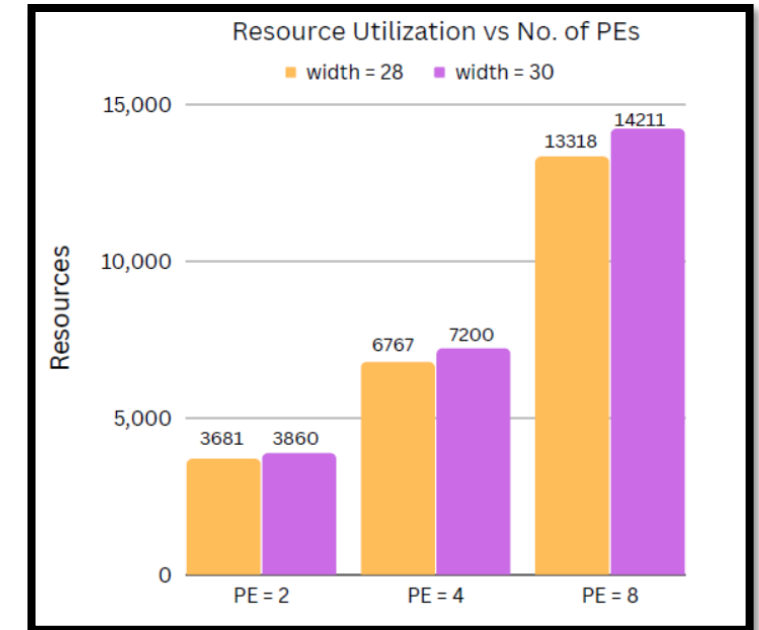
# Conventional Algorithm



**Power Analysis**



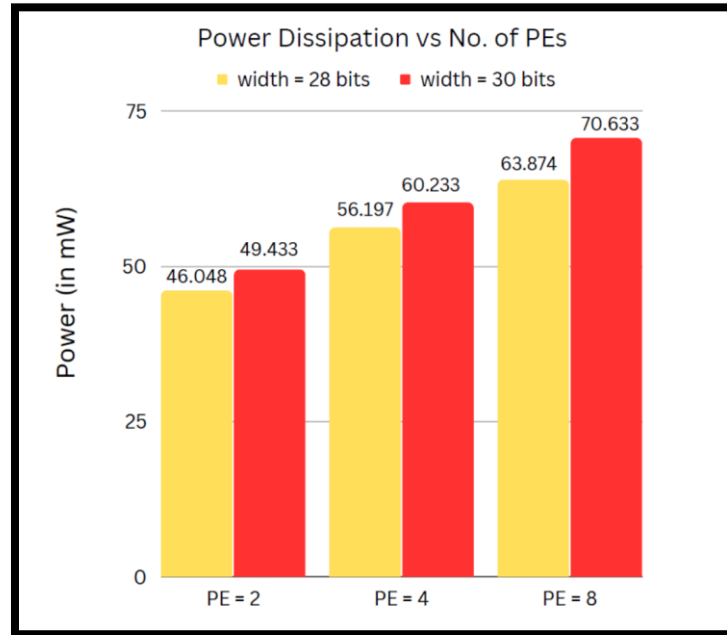
**Performance Analysis**



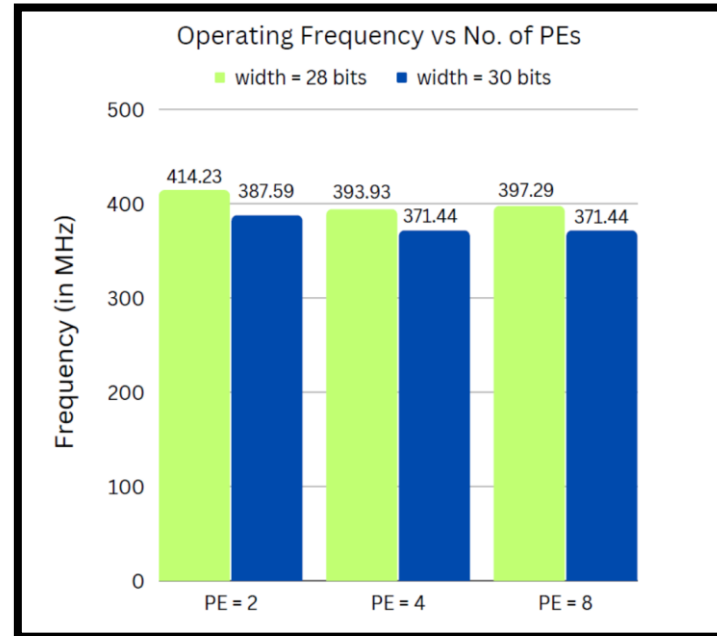
**Area Analysis**

# ASIC IMPLEMENTATION OF PARAMETRIC NTT HARDWARE ACCELERATOR

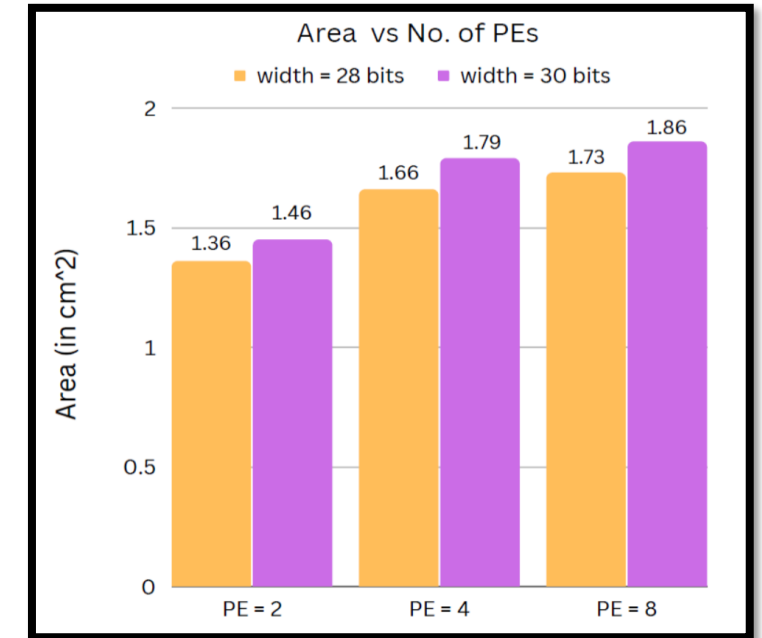
# Conventional Algorithm



**Power Analysis**

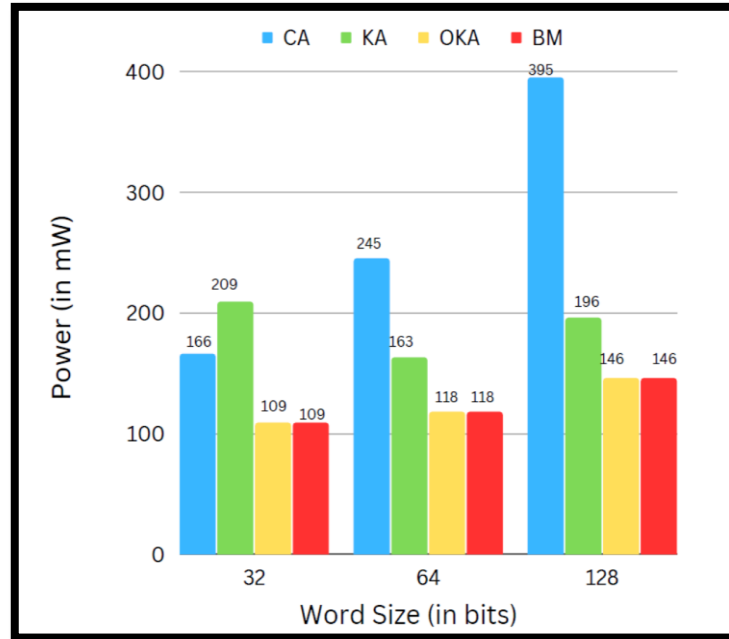


**Performance Analysis**

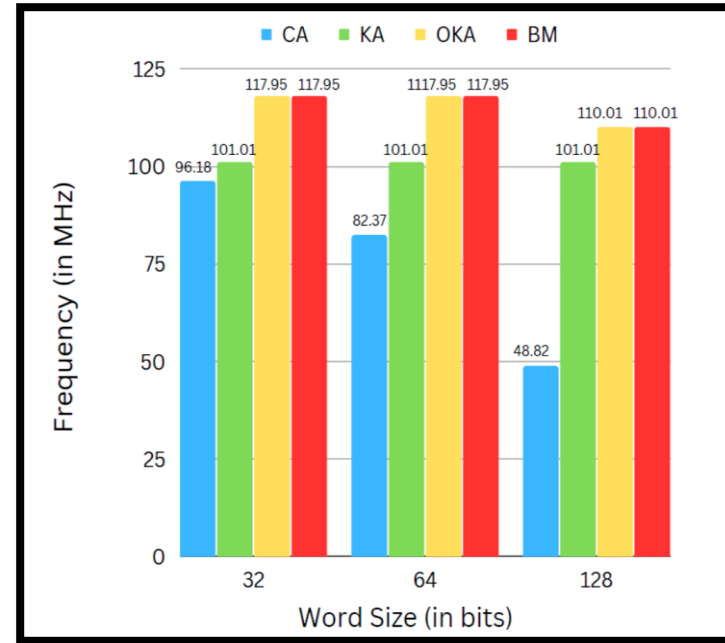


**Area Analysis**

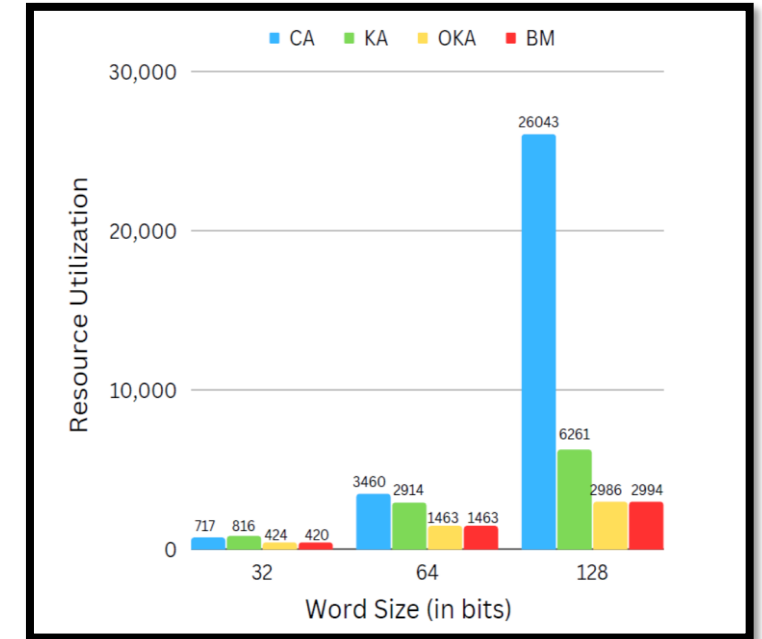
# FPGA SYNTHESIS OF MODULUS MULTIPLICATION BLOCK OF PARAMETRIC NTT HARDWARE ACCELERATOR



***Power Analysis***



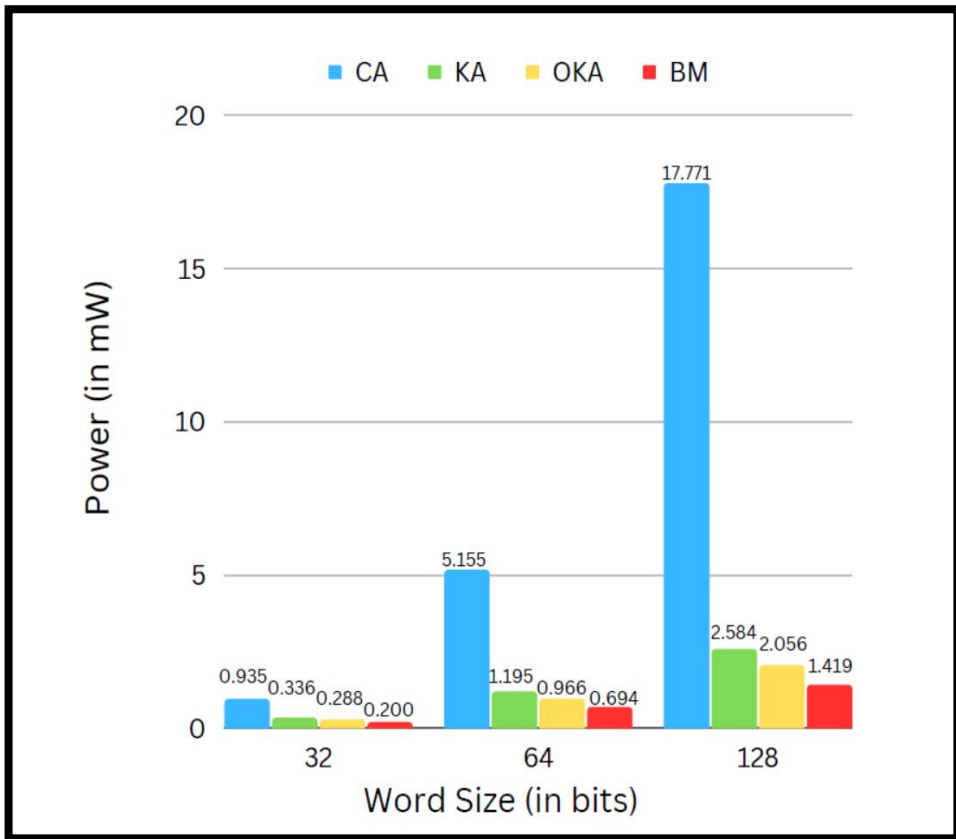
***Performance Analysis***



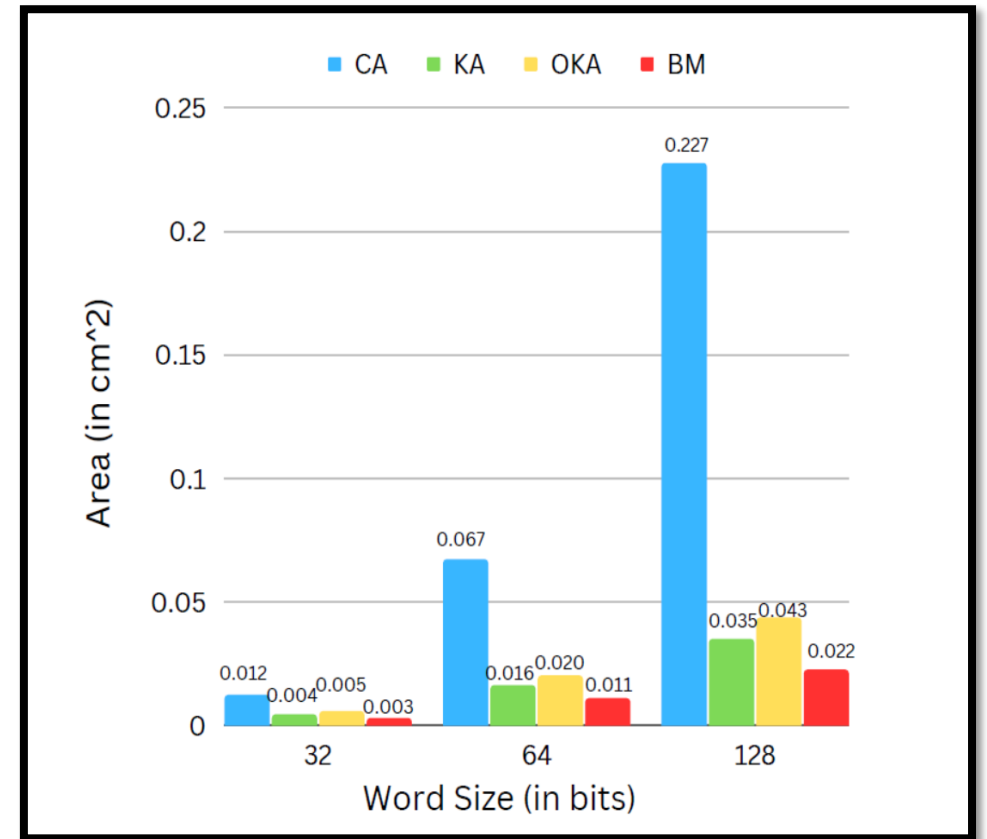
***Area Analysis***

# ASIC SYNTHESIS OF MODULUS MULTIPLICATION BLOCK OF PARAMETRIC NTT HARDWARE ACCELERATOR

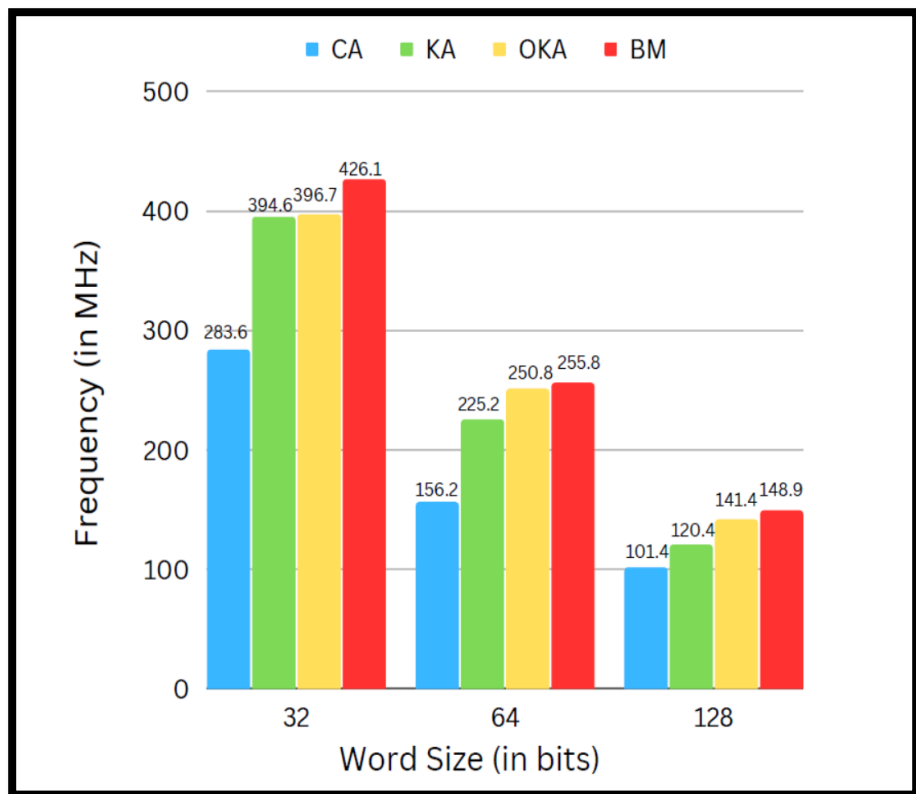




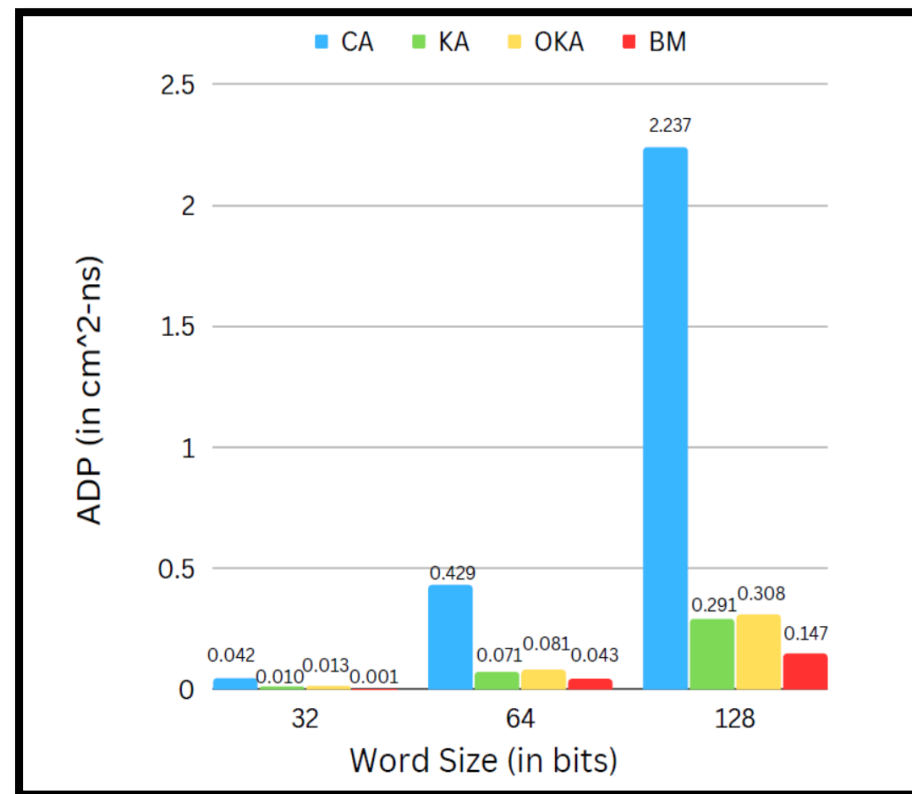
***Power Analysis***



***Area Analysis***

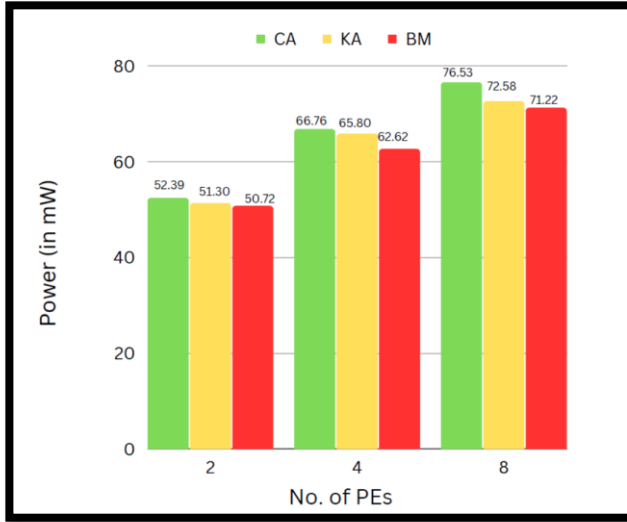


***Performance Analysis***

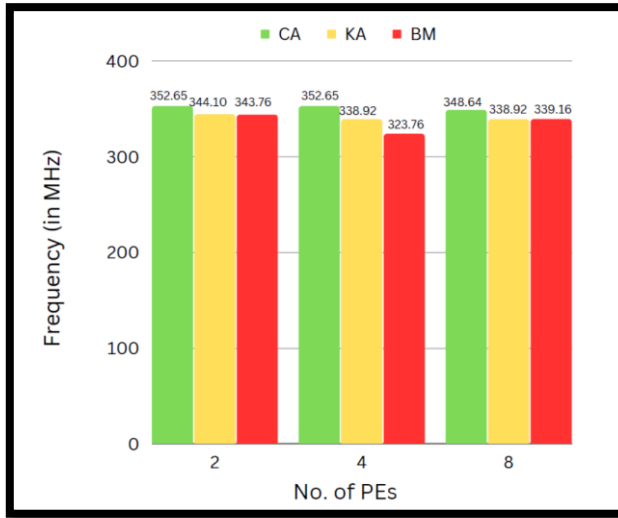


***ADP Analysis***

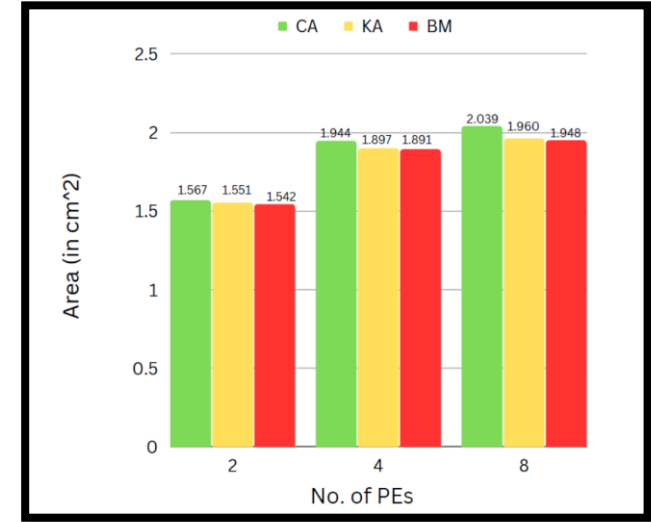
**ASIC SYNTHESIS OF  
PARAMETRIC NTT HARDWARE  
ACCELERATOR USING  
CONVENTIONAL ALGORITHM,  
KARATSUBA ALGORITHM AND  
BOOTH MULTIPLIER RADIX-4  
ALGORITHM**



***Power Analysis***



***Performance Analysis***



***Area Analysis***