

Research Project details (UG Students)

2020-2021

Sr.No	Title	Student Names	Students	Guide Name
1	Design Of Higher Order Multiplier With Approximate Compressor	TUPAKULA BHARGAVI KORLEPARA KASI LAKSHMI PRAVALLIKA MUPPIRISETTI BHARGAVI MUGIDHI RAVI CHANDU	17A81A0456 17A81A0432 17A81A0441 18A85A0408	Y.SUJATHA
2	Food Recognition And Calorie Extraction Using Bag-Of-Surf And Spatial Pyramid Matching	MOKKARALA NAGA SAI LAKSHMI SAMYUKTHA VEERLA NAGATULASI MADAPANI MANOJ SAI KUMAR NAMA SRI VISHNU SAI	17A81A0440 18A85A0411 17A81A0436 17A81A0443	THOTA SREENIVAS
3	IoT Based Water Quality Monitoring System	GADDE KEERTHI CHAMAKURI MANI SAI GEDDADA SRIVALLI GUDIMETLA VENKATA SURYA NAGA BAPI REDDY	17A81A04E0 17A81A04D2 17A81A04E3 17A81A04E4	Dr. M.KOTESWARA RAO
4	Hand Gestures To Speech Conversion Using Machine Learning By Webcam	DEVINA TEJASWI AMBATI NAVYA BONTHU JAYA PRATHYUSHA MARNI NARAYANA	17A81A04D8 17A81A04C4 17A81A04D1 16A81A04F0	S.CH. KANTHARAO
5	Design And Implementation Of Number Plate Detection Using Deep Learning	POLIREDDY JAYA SURYA SIVA RAMA MANIDEEP VATTIKUTI BHARATHI SANKU PARIMALA SATYA SANTHOSHI PECHETTI JOHN SATISH	17A81A04A2 17A81A04B4 17A81A04A6 17A81A04A0	K.S.S. KIRAN

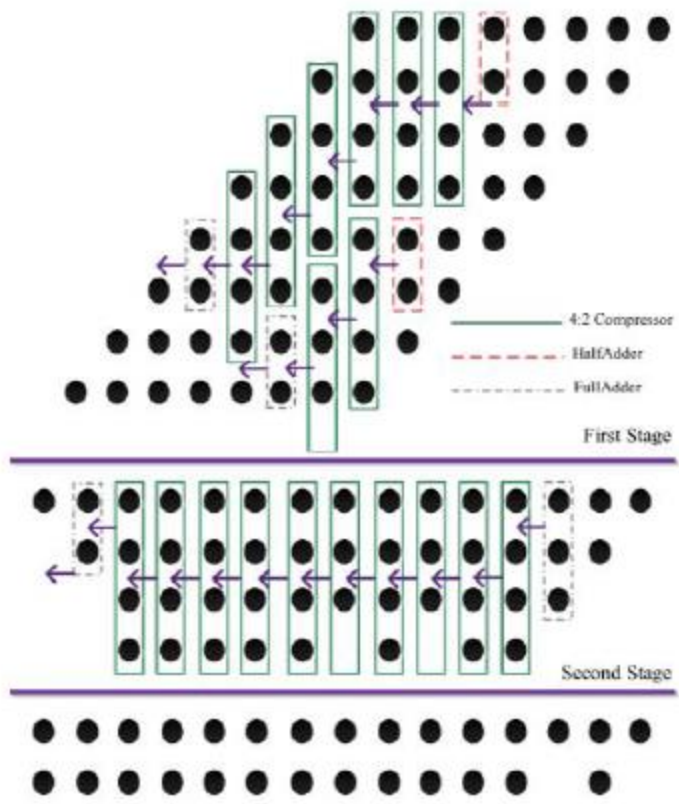


Fig:4.5 8x8 multiplier with exact 4:2 compressor

4.5 8 bit multiplier with approximate 8:2 compressor:

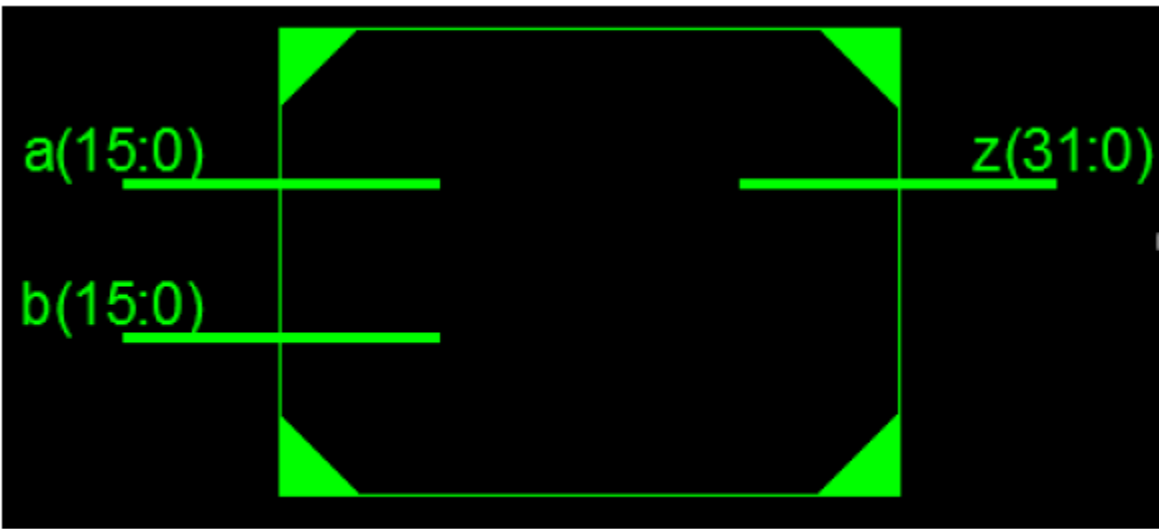


Fig:5.1 RTL Schematic

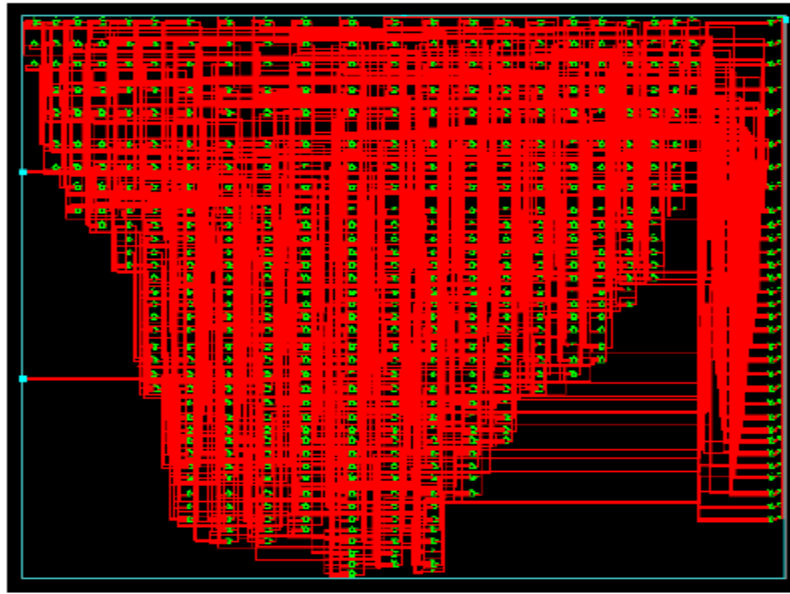


Fig 5.2 Technology Schematic

5.3.1 Design-1:

Name	Value	1 us	2 us	3 us	4 us
a[0:5:0]	28210	z	28210	65535	21887
b[0:5:0]	16384	z	16384	65535	57244
c[0:5:0]	3207780176	x	1207730176	4294617867	2235949056
p0[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p1[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p2[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p3[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p4[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p5[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p6[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p7[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p8[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p9[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p10[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p11[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000
p12[15:0]	00000000000000000000		000000000000000000	111111111111111111	0000000000000000

X1: 1.000000 us

5.3.2 Design-2:

Name	Value	1 us	2 us	3 us	4 us
a[0:5:0]	43946	z	35384	64832	43946
b[0:5:0]	17189	z	26214	65535	17189
c[0:5:0]	1029215820	x	1043490960	3478034736	1029315820
p0[15:0]	10101011101		000000000000000000	1111100010000000	2010201120102010
p1[15:0]	00000000000000000000		000000000000000000	1111100010000000	0000000000000000
p2[15:0]	10101011101		000000000000000000	1111100010000000	2010201120102010
p3[15:0]	00000000000000000000		000000000000000000	1111100010000000	0000000000000000
p4[15:0]	00000000000000000000		000000000000000000	1111100010000000	0000000000000000
p5[15:0]	10101011101		000000000000000000	1111100010000000	2010201120102010
p6[15:0]	00000000000000000000		000000000000000000	1111100010000000	0000000000000000
p7[15:0]	10101011101		000000000000000000	1111100010000000	2010201120102010
p8[15:0]	00000000000000000000		000000000000000000	1111100010000000	0000000000000000
p9[15:0]	10101011101		000000000000000000	1111100010000000	2010201120102010
p10[15:0]	00000000000000000000		000000000000000000	1111100010000000	0000000000000000
p11[15:0]	00000000000000000000		000000000000000000	1111100010000000	0000000000000000
p12[15:0]	00000000000000000000		000000000000000000	1111100010000000	0000000000000000

X1: 3.976533 us

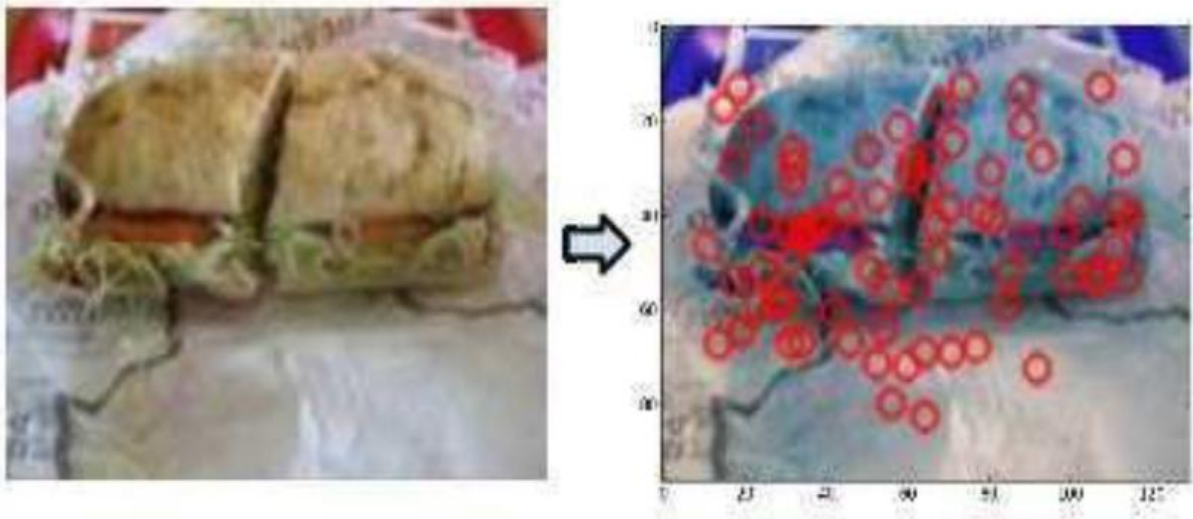


Fig. 2: SURF key points extracted from a sample image. Original image is shown on the left. Image on the right shows the extracted SURF key points

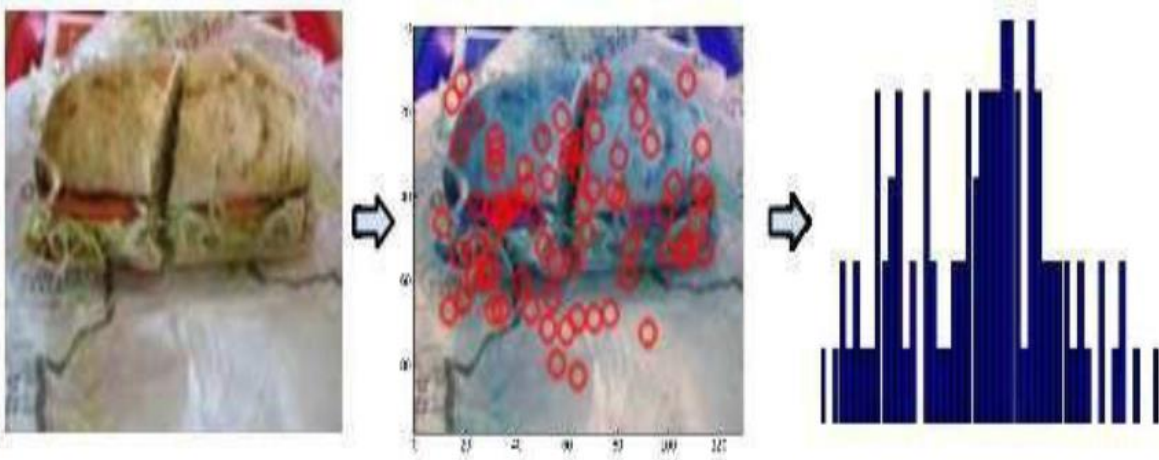


Fig. 3: Food recognition using Bag-of-SURF method

