(b) Measurement of power division and isolation characteristics of a microstrip 3 dB power divider.

MICROPROCESSOR LAB

Subject Code	: **10ECL68**	IA Marks	: 25
No. of Practical Hrs/Week: 03		Exam Hours	: 03
Total no. of Practical Hrs. : 42		Exam Marks	: 50

I) **Programs involving**

1) Data transfer instructions like:
   - i] Byte and word data transfer in different addressing modes.
   - ii] Block move (with and without overlap)
   - iii] Block interchange

2) Arithmetic & logical operations like:
   - i] Addition and Subtraction of multi precision nos.
   - ii] Multiplication and Division of signed and unsigned Hexadecimal nos.
   - iii] ASCII adjustment instructions
   - iv] Code conversions
   - v] Arithmetic programs to find square cube, LCM, GCD, factorial

3) Bit manipulation instructions like checking:
   - i] Whether given data is positive or negative
   - ii] Whether given data is odd or even
   - iii] Logical 1's and 0's in a given data
   - iv] 2 out 5 code
   - v] Bit wise and nibble wise palindrome

4) Branch/Loop instructions like:
   - i] Arrays: addition/subtraction of N nos.
     Finding largest and smallest nos.
     Ascending and descending order
   - ii] Near and Far Conditional and Unconditional jumps, Calls and Returns

5) Programs on String manipulation like string transfer, string reversing, searching for a string, etc.

H. O. D.
Dept. Of Electronics & Communication
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

6) Programs involving Software interrupts
Programs to use DOS interrupt INT 21h Function calls for Reading a Character from keyboard, Buffered Keyboard input, Display of character/ String on console

II) Experiments on interfacing 8086 with the following interfacing modules through DIO (Digital Input/Output-PCI bus compatible) card
   a) Matrix keyboard interfacing
   b) Seven segment display interface
   c) Logical controller interface
   d) Stepper motor interface

III) Other Interfacing Programs
   a) Interfacing a printer to an X86 microcomputer
   b) PC to PC Communication

ELECTIVE – GROUP A
ANALOG AND MIXED MODE VLSI DESIGN

Subject Code	: 10EC661	IA Marks	: 25
No. of Lecture Hrs/Week	: 04	Exam Hours	: 03
Total no. of Lecture Hrs.	: 52	Exam Marks	: 100

(Text Book 1)

UNIT 1

Data converter fundamentals: Analog versus Digital Discrete Time Signals, Converting Analog Signals to Data Signals, Sample and Hold Characteristics, DAC Specifications, ADC Specifications, Mixed-Signal Layout Issues.

UNIT 2

Data Converters Architectures: DAC Architectures, Digital Input Code, Resistors String, R-2R Ladder Networks, Current Steering, Charge Scaling DACs, Cyclic DAC, Pipeline DAC, ADC Architectures, Flash, 2-Step Flash ADC, Pipeline ADC, Integrating ADC, Successive Approximation ADC.

UNIT 3

Non-Linear Analog Circuits: Basic CMOS Comparator Design (Excluding Characterization), Analog Multipliers, Multiplying Quad (Excluding Stimulation), Level Shifting (Excluding Input Level Shifting For Multiplier).

(Text Book 2)

UNIT 4:

Data Converter SNR: Improving SNR Using Averaging (Excluding Jitter & Averaging onwards), Decimating Filters for ADCs (Excluding Decimating

D.V.T. H. O. D.
Dept. Of Electronics & Communication
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225