



TONTADARYA COLLEGE OF ENGINEERING, GADAG.
DEPARTMENT OF MECHANICAL ENGINEERING



SEMESTER: VII

COMPUTER INTEGRATED MANUFACTURING LABORATORY

CARPET AREA : 75 Sq.Mts

TOTAL COST : Rs 5,93,000.00

LIST OF EQUIPMENTS

SI. NO	PARTICULARS	QTY
1	18.5" TFT Monitor PROCESSOR: Core 2 Duo @ 3.0 Ghz RAM: 2GB DDR2 STORAGE : 250 GB HDD	20
2	17" TFT Monitor PROCESSOR: Core 2 Duo @ 3.0 Ghz RAM: 1GB DDR2 STORAGE : 160 GB HDD	01

STAFF IN-CHARGE

Dr. D M Goudar
H O D

Dr. R V Kadi / Prof. S S Khaji
Faculty In-Charge

Mr. Prakash Badiger
Instructor



TONTADARYA COLLEGE OF ENGINEERING, GADAG.
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SEMESTER: III / IV

COMPUTER INTEGRATED MANUFACTURING

LIST OF EXPERIMENTS

Sub Code: 15MEL77

IA Marks: 20

Hours/Week: 03

Exam Hours:03

Total Hours: 42

Exam Marks: 80

Part-A

Manual CNC part programming for 2 turning and 2 milling parts. Selection and assignment of tools, correction of syntax and logical errors and verification of tool path.

CNC part programming using CAM packages: Simulation of Turning, Drilling, Milling operations. 3 typical simulations to be carried out using simulation packages like: **Cadem, CAM Lab-Pro, Master-CAM.**

Program generation using software. Optimize spindle power, torque utilization, and cycle time.

Generation and printing of shop documents like process and cycle time sheets, tool list, and tool layouts.

Cut the part in single block and auto mode and measure the virtual part on screen. Post processing of CNC

programs for standard CNC control systems like FANUC, SINUMERIC and MISTUBISHI.

Part B

(Only for Demo/Viva voce)

FMS (Flexible Manufacturing System): Programming of Automatic storage and Retrieval system (ASRS) and linear shuttle conveyor Interfacing CNC lathe, milling with loading unloading arm and ASRS to be carried out on simple components.

(Only for Demo/Viva voce)

Robot programming: Using Teach Pendent & Offline programming to perform pick and place, stacking of objects (2 programs).

Pneumatics and Hydraulics, Electro-Pneumatics: 3 typical experiments on Basics of these topics to be conducted.