JIS COLLEGE OF ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

Advanced Manufacturing Technology Laboratory

Details of Laboratory:

Lab in-charge: Mr. Subhasish Halder

Advanced Manufacturing Technology Laboratory is a well equipped laboratory which provides knowledge expose students for operating and handling CNC machine by themselves and performing the given task.. This laboratory is scheduled for 7th semester Mechanical engineering students. Apart from curriculum, some additional experimental setups are there which helps the students to enhance their knowledge. Students also get opportunity to implement their ideas through various application oriented micro projects.

Major Equipments:

1	CNC Milling Machine
2	Mini Robot

List of Experiments:

Sl. No.	Description
1.	Face milling operation on given specimen.
2.	Slotting operation on given work piece.
3.	Making a pocket on given work piece.
4.	Making a spigot on given work piece.
5.	Drilling operation as required.
6.	Pick & place operation by robotic arm.

Lab Occupancy

JIS College of Engineering
Lecture and Lab schedule for odd semester 2017-2018 STREAM/BATCH: ME- 4A
B.Tech 4th Year classes Room No. 304(ME Building, Block-A)

DAYS	10 am to 11 am	11 am to 12 am	12 pm to 1pm	1 to 2pm	2 to 3pm	3 to 4 pm	4 to 5 pm	5 to 6 pm
MON						ME791,Gr.ME4A(1)[BM]		
						ME781 Gr.ME4A(2)(DRJ)		
TUE								
WED								
THU								
FRI					ME791,Gr.ME4A(2)[BM]			
					ME781 Gr.ME4A(1)(PKB)			

Subjects: ME701- Advanced Manufacturing Technology- II , ME 702- Materials Handling, ME703A-Advance Welding Technology,ME703B- CAD/CAM, ME704A- Energy Conservation & Management, M(ME)701- Operations Research,ME 791- Advanced Manufacturing Lab, , ME781- Project: Part – I, ME 783-Group Discussion

Faculty name: PKB - Dr. P.K. Bardhan, DRJ-Dr. Dipak Ranjan Jana, DN-Dr. Debashis Nandi, SS-Mr. Sujay Saha,UR- Mr. Uttam Roy BD-Mr. Bishal Dey, BCB - Mr. Bikash Chandra Bhunia,AS-Mr.Anirban Sarkar, Mr. Bijan Mallick, Mr. Subrata Majumder, Mr. Dhiraj Mondal

----------	----------	----------
Routine Coordinator	**HOD**	**Principal**
(Prof. P. Biswas)	**(Prof. (Dr.) S. Ghosh)**	**(Prof. (Dr.) M. R. Dave)**

JIS College of Engineering
Lecture and Lab schedule for odd semester 2017-2018 STREAM/BATCH: ME- 4B
B.Tech 4th Year classes 302(ME Building, Block-A)

DAYS	10 am to 11 am	11 am to 12 am	12 pm to 1pm	1 to 2pm	2 to 3pm	3 to 4 pm	4 to 5 pm	5 to 6 pm
MON								
TUE						ME791,Gr.ME4B(2)(SM)		
						ME781 Gr.ME4B(1)(BD)		
WED								
THU								
FRI	ME791,Gr.ME4B(2)(SM)							
	ME781 Gr.ME4B(1)(BCB)							

Subjects: ME701- Advanced Manufacturing Technology- II , ME 702- Materials Handling,ME703A-Advance Welding Technology,ME703B- CAD/CAM,ME704A- Energy Conservation & Management, **ME704B-Tribology,** M(ME)701- Operations Research, ME 791- Advanced Manufacturing Lab, , ME781- Project: Part – I, ME 783- Group Discussion

Faculty name: PKB - Dr. P.K. Bardhan, DRJ-Dr. Dipak Ranjan Jana, DN-Dr. Debashis Nandi, SS-Mr. Sujay Saha,UR- Mr. Uttam Roy BD-Mr. Bishal Dey, BCB - Mr. Bikash Chandra Bhunia,AS-Mr.Anirban Sarkar, Mr. Bijan Mallick, Mr. Subrata Majumder, Mr. Dhiraj Mondal

----------	----------	----------
Routine Coordinator	**HOD**	**Principal**
(Prof. P. Biswas)	**(Prof. (Dr.) S. Ghosh)**	**(Prof. (Dr.) M. R. Dave)**

Name of the Course: Advanced Manufacturing Technology Laboratory

Course Code: ME 791

Prerequisites: Knowledge about Advanced Manufacturing Technology

Course Objective: To expose students for operating and handling CNC machine by themselves and performing the given task.

Course Outcomes:

After successful completion of the course, the student would be able to

ME791.1 Program a CNC turning or milling machine for preparing a job.
ME791.2 Evaluate the process parameters involved in CNC machining
ME791.3 Analyze the principles of Robot programming and carryout hands on practice
ME791.4 Elaborate any nonconventional machining process and 3D printing.

Course Articulation Matrix:

CO Codes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
ME791.1	3	-	2	-	2	-	3	-	-	-	1	2	3	-	-
ME791.2	3	2	2	-	2	-	2	-	-	-	2	2	2	-	-
ME791.3	2	1	1	-	2	-	2	-	-	-	1	1	-	3	3
ME791.4	2	2	2	-	3	-	2	-	-	-	2	2	3	2	-
Avg.	2.5	1.66	1.75	-	2.25	-	2.25	-	-	-	1.5	1.75	2.66	2.5	3

CNC Milling Machine

Mini Robot