

**The LNM Institute of Information Technology, Jaipur  
(Deemed-to-be-University)**

Gram – Rupa Ki Nangal, Post – Sumel, Via – Jamdoli, Jaipur – 302031,  
Tel: +91-141-5191741, 5191757, Fax: +91-141-5189214, 2689014  
E-mail: info.lnmiit@lnmiit.ac.in, Website: www.lnmiit.ac.in



**Curriculum Y23 Onwards**

**B. Tech. (Hons.) in Mechanical Engineering with Specialization in Robotics & Automation**

<b>ME</b>							
<b>1st Semester:</b>							
S. No.	CCODE	Course Name	Type	L	T	P	Credits
1	PH111	Classical Physics	BSC	3	1	0	4
2	MT111	Calculus and Ordinary Differential Equations	BSC	3	1	0	4
3	EC111	Basic Electronics	ESC	3	1	0	4
4	EC111L	Basic Electronics Lab	ESC	0	0	3	1.5
5	CS111	Programming for Problem Solving	ESC	3	0	3	4.5
6	HS111	Technical Communication in English	HSMC	2	0	2	3
7	HS112	Indian Knowledge System	MC	1	0	0	1
<b>A 3-week Mandatory Induction Program</b>							
<b>Total Credits</b>							<b>22</b>

<b>2nd Semester:</b>							
S. No.	CCODE	Course Name	Type	L	T	P	Credits
1	HS121	Human Values and Ethics	HSMC	3	0	0	3
2	ME121	Environmental Science	MC	1	0	0	1
3	MT121	Linear Algebra and Complex Analysis	BSC	3	1	0	4
4	CS121	Data Structures and Algorithms	ESC	3	0	3	4.5
5	PH121L	UG Physics Lab	BSC	0	0	3	1.5
6	CS122	Introduction to Scripting Languages	ESC	0	0	2	1
7	ME122	Introduction to Mechanical Engineering	PC	1	0	0	1
8	ME123	Engineering Drawing and Graphics	PC	0	0	3	1.5
9	ME124	Workshop Practices	PC	0	0	3	1.5
10	ME125	Engineering Physical Metallurgy	PC	3	0	0	3
<b>Total Credits</b>							<b>22</b>

<b>Summer Term</b>	
<b>Exit option with UG Certificate by Completing 40 credits from 2 semesters and additional 6 credits from an Internship or skill based courses in the summer term</b>	

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<b>3rd Semester:</b>							
<b>S. No.</b>	<b>CCODE</b>	<b>Course Name</b>	<b>Type</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	MT211	Probability and Statistics	BSC	3	1	0	4
2	ME211	Mechanics of Solids	PC	3	0	2	4
3	ME212	Rigid Body Dynamics	PC	2	0	0	2
4	ME213	Engineering Thermodynamics	PC	3	1	0	4
5	ME214	Welding and Casting	PC	3	0	2	4
6	ME215	Electrical Technology	PC	2	0	2	3
7		Minor Project	SC	0	0	3	1.5
8		Introduction to Automation	SC	1	0	3	2.5
<b>Total Credits</b>							<b>25</b>

<b>4th Semester:</b>							
<b>S. No.</b>	<b>CCODE</b>	<b>Course Name</b>	<b>Type</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	HS221	Constitutional Studies	MC	1	0	0	1
2	ME221	Design of Machine Elements	PC	3	0	0	3
3	ME222	Fluid Mechanics and Machinery	PC	3	1	2	5
4	ME223	Machining and Metal Forming	PC	3	0	2	4
5	ME224	Mechanisms and Machines	PC	2	0	2	3
6	ME225	Introduction to Computational Methods	PC	0	0	2	1
7	ME226	Industrial Measurements	PC	3	0	2	4
8		Modelling and Design of Robots	SC	1	0	3	2.5
<b>Total Credits</b>							<b>23.5</b>

<b>Summer Term</b>	
<b>Exit option with UG Diploma by Completing 80 credits from 4 semesters and additional 6 credits from an Internship or skill based courses in the summer term</b>	

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5th Semester:							
S. No.	CCODE	Course Name	Type	L	T	P	Credits
1	LN311/LN312	Summer Internship/Project	Project	0	0	8	4
2	ME311	Heat Transfer	PC	3	0	2	4
3	ME312	Design of Transmission Elements	PC	3	0	2	4
4	ME313	Digital Manufacturing	PC	3	0	2	4
5	ME314	Robotics and Control	PC	2	0	2	3
6	ME315	Mechatronics & IoT	PC	2	0	2	3
7		Programming for Automation and Robotics	SC	1	0	3	2.5
<b>Total Credits</b>							<b>24.5</b>

6th Semester:							
S. No.	CCODE	Course Name	Type	L	T	P	Credits
1	LN321	B.Tech. Project (BTP)	Project	0	0	8	4
2	HS321	Introduction to Economics	HSMC	3	0	0	3
3	LN322	Seminar and Presentation Skills	Project	0	0	2	1
4	ME321	IC Engines	PC	3	0	2	4
5	ME322	Finite Element Methods	PC	3	0	0	3
6	ME323	Industrial Engineering and Management	PC	3	0	0	3
7		Program Elective 1	PE	3	0	0	3
8		Control and Optimization of Automation and Robotic Systems	SC	1	0	3	2.5
<b>Total Credits</b>							<b>23.5</b>

Summer Term	
<b>Exit option with B.Sc. by Completing 120 credits from 6 semesters and additional 6 credits from an Internship or skill based courses in the summer term</b>	

7th Semester:							
S. No.	CCODE	Course Name	Type	L	T	P	Credits
1	LN411	B.Tech. Project (BTP)	Project	0	0	8	4
2		Open Elective 1	OE	3	0	0	3
3		Program Elective 2	PE	3	0	0	3
4		Program Elective 3	PE	3	0	0	3
5		Program Elective 4	PE	3	0	0	3

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6		Open Elective 2	PE	3	0	0	3
7		Artificial Intelligence for Robotics and Automation	SC	1	0	3	2.5
8		Major Project	SC	0	0	8	4
<b>Total Credits</b>							<b>25.5</b>

<b>8th Semester:</b>							
<b>S. No.</b>	<b>CCODE</b>	<b>Course Name</b>	<b>Type</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
Option 1	LN421	Industrial SLI	Project	0	0	24	12
Option 2	LN422	Thesis	Project	0	0	24	12
Option 3		4 Elective Courses	OE/PE	12	0	0	12
Option 4	LN423	Project	Project	0	0	12	6
		2 Elective Courses	OE/PE	6	0	0	6
Option 5	LN424	Internship	Project	0	0	12	6
		2 Elective Courses	OE/PE	6	0	0	6
<b>Total Credits</b>							<b>12</b>

<b>Total Curriculum Credits</b>							<b>178</b>
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