

**SHRI VISHWAKARMA SKILL UNIVERSITY**  
(Enacted by the Act 25 of 2016, State of Haryana)  
**DUDHOLA, PALWAL**



**B. Voc. Robotics & Automation**  
**Batch 2020-23**

### Scheme of B.Voc (Robotics and Automation) Batch: 2020-2023

Semester-I															
Category	Code	Subject Name	Credits			Marks							Hrs		
						Theory			Practical			Total			
			T	P	TO	I	E	TO	I	E	TO		T	P	TO
General Education Component	ENG-501 ENG-501L	Communication Skills	3	1	4	15	35	50	35	15	50	100	45	30	75
	EE-501 EE-501L	Basics of Electrical & Electronics Engineering	3	1	4	15	35	50	35	15	50	100	45	30	75
	MTH-501	Applied Mathematics	4	0	4	30	70	100	-	-	-	100	60	-	60
	CSE-501 CSE-501L	Fundamental of Computers	3	1	4	15	35	50	35	15	50	100	45	30	75
	IMS-501 IMS-501L	Fundamental of Industrial Management and Safety	3	1	4	15	35	50	35	15	50	100	45	30	75
	Total		16	4	20	90	210	300	140	60	200	500	240	120	360
Skill Education Component	ME-504L	Workshop Practice	0	4	4	-	-	-	70	30	100	100	0	120	120
	RA-501 RA-501L	Fundamental of Robotic System	3	1	4	15	35	50	35	15	50	100	45	30	75
	ME-501L	Engineering Graphics and Drawing	0	4	4	-	-	-	70	30	100	100	-	120	120
	Total		3	9	12	15	35	50	175	75	250	300	45	270	315
Grand Total			19	13	32	105	245	350	315	135	450	800	285	390	675

**Scheme of B.Voc (Robotics and Automation) Batch: 2020 onwards**

Semester-II															
Category	Subject Code	Subject Name	Credits			Marks							Hrs		
						Theory			Practical			Total			
			T	P	TO	I	E	TO	I	E	TO		T	P	TO
General Education Component	OET-502	*MOOC/Online Course-I (Industrial Automation & Control)	2	0	2	30	70	100	0	0	0	100	30	0	30
	OMS-501	Entrepreneurship (MOOC/Online Course-II)	2	0	2	30	70	100	0	0	0	100	30	0	30
	Total		4	0	4	60	140	200	0	0	0	200	60	0	60
Skill Education Component	OJT-501	On Job Training (OJT)	0	24	24	-	-	0	245	105	350	350	0	1080	1080
	Total		0	24	24	0	0	0	245	105	350	350	0	1080	1080
Grand Total			4	24	28	60	140	200	245	105	350	550	60	1080	1140

Note: \* Relevant MOOC/Online course will be offered as per the availability.

**Job Role: Level-5**

Industrial Automation Specialist (QP IAS/Q8005)

**Scheme of B.Voc (Robotics and Automation) Batch: 2020 onwards**

Semester-III															
Category	Subject Code	Subject Name	Credits			Marks							Hrs		
						Theory			Practical			Total			
			T	P	TO	I	E	TO	I	E	TO		T	P	TO
General Education Component	ME-604 ME-604L	Kinematics and Dynamics of Robots	3	1	4	15	35	50	35	15	50	100	45	30	75
	ECE-601 ECE-601L	Microprocessor and Microcontroller	3	1	4	15	35	50	35	15	50	100	45	30	75
	ECE-602 ECE-602L	Electronic Devices and Circuits	3	1	4	15	35	50	35	15	50	100	45	30	75
	EE-601 EE-601L	Automatic Control System	3	1	4	15	35	50	35	15	50	100	45	30	75
	ECE-602 ECE-602L	Sensors Applications in Manufacturing	3	1	4	15	35	50	35	15	50	100	45	30	75
	Total		15	5	20	75	175	250	175	75	250	500	225	150	375
Skill Education Component	RA-601 RA-601L	Industrial Automation System	3	1	4	15	35	50	35	15	50	100	45	30	75
	ME-605 ME-605L	Hydraulics and Pneumatics	3	1	4	15	35	50	35	15	50	100	45	30	75
	RA-602 RA-602L	Industrial Robotics & Material Handling System	3	1	4	15	35	50	35	15	50	100	45	30	75
	Total		9	3	12	45	105	150	105	45	150	300	135	90	225
Grand Total			24	8	32	120	280	400	280	120	400	800	460	240	600

**Scheme of B.Voc (Robotics and Automation) Batch: 2020 onwards**

Semester-IV															
Category	Subject Code	Subject Name	Credits			Marks							Hrs		
						Theory			Practical			Total			
			T	P	TO	I	E	TO	I	E	TO		T	P	TO
General Education Component		*MOOC/Online Course-III	2	0	2	30	70	100	0	0	0	100	30	0	30
		Value Education and Professional Ethics (MOOC/Online Course-IV)	2	0	2	30	70	100	0	0	0	100	30	0	30
	Total		4	0	4	60	140	200	0	0	0	200	60	0	60
Skill Education Component	OJT-601	On Job Training (OJT)	0	24	24	-	-	0	245	105	350	350	0	1080	1080
	Total		0	24	24	0	0	0	245	105	350	350	0	1080	1080
Grand Total			4	24	28	60	140	200	245	105	350	550	60	1080	1140

Note: \* Relevant MOOC/Online course will be offered as per the availability.

**Job Roles: Level-6**

Robotics and Automation Associate

**Scheme of B.Voc (Robotics and Automation) Batch: 2020 onwards**

Semester-V															
Category	Subject Code	Subject Name	Credits			Marks							Hrs		
						Theory			Practical			Total			
			T	P	TO	I	E	TO	I	E	TO		T	P	TO
General Education Component	ECE-701 ECE-701L	Linear Integrated Circuits	3	1	4	15	35	50	35	15	50	100	45	30	75
	RA-701 RA-701L	Mobile Robots	3	1	4	15	35	50	35	15	50	100	45	30	75
	ME-701	Micro Electro Mechanical System	4	0	4	30	70	100	-	-	-	100	60	-	60
	IMS-704	Leadership and Quality Management	4	0	4	15	35	50	35	15	50	100	45	30	75
	EE-701L	Special Machines and Controllers Lab	0	4	4	-	-	-	70	30	100	100	0	120	120
	Total		14	6	20	75	175	250	175	75	250	500	195	210	405
Skill Education Component	ETP-701L	Project	0	4	4	-	-	-	70	30	100	100	0	120	120
	RA-703 RA-703L	Robotic Design and Control	3	1	4	15	35	50	35	15	50	100	45	30	75
	EE-702 EE-702L	Power Electronics & Drives	3	1	4	15	35	50	35	15	50	100	45	30	75
	Total		6	6	12	30	70	100	140	60	200	300	90	180	270
Grand Total			20	12	32	105	245	350	315	135	450	800	285	390	675

**Scheme of B.Voc (Robotics and Automation) Batch: 2020 onwards**

Semester-VI															
Category	Subject Code	Subject Name	Credits			Marks							Hrs		
						Theory			Practical			Total			
			T	P	TO	I	E	TO	I	E	TO		T	P	TO
General Education Component		*MOOC/Online Course-V	2	0	2	30	70	100	0	0	0	100	30	0	30
		*MOOC/Online Course-VI	2	0	2	30	70	100	0	0	0	100	30	0	30
	Total			4	0	4	60	140	200	0	0	0	200	60	0
Skill Education Component	OJT-701	On Job Training (OJT)	0	24	24	-	-	0	245	105	350	350	0	1080	1080
	Total			0	24	24	0	0	0	245	105	350	350	0	1080
Grand Total			4	24	28	60	140	200	245	105	350	550	60	1080	1140

Note: \* Relevant MOOC/Online course will be offered as per the availability.

**Job Roles: Level-7**

Robotics and Automation Junior Executive