

(b)

VALUE ADDED COURSE	Emerging Technologies in Computer Science
COURSE	COMP-VAC-106
Course Objectives	1. To understand the basics of IoT, As 2. To understand the basics of Robotics with A
Course Outcome	1. Students will learn the concept of a desktop board and its components. 2. Students will learn the concept of a desktop board and its components.
Credits	2
Contact Hours	30
UNITS	TOPICS
Unit 1	• IoT: Definition, Applications, Security, Privacy, and Ethical Issues. • Arduino programming, Input/output devices
Unit 2	• Robotics: Definition, Difference in Robot System and Control Systems. • Types of Robot Control Systems: Definition of Robot, Robot Components, Robot Locomotion, Actuators, Degree of freedom Locomotion, Manipulation, Sensors.

REFERENCES

1. Arshdeep Singh, Vijay Anand, "Introduction to Robotics - A hands-on approach", Universities Press, New Delhi, 2015.
2. Peter Wahle, "Embedded Systems: A Hands-on Approach", Packt Publishing, Mumbai, 2005.
3. John Nussey, "Arduino For Dummies", John Wiley & Sons, 2nd Edition, 2015.
4. John Baichtal, "Arduino For Beginners", No Starch Press, 2015.
5. S.R. Deb, "Robotics Technology and Mobile Automation", Tata McGraw Hill Education, 2015.
6. P. Anand, "Robotics and Image Processing", Tata McGraw Hill Education, 2015.

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