 **BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

**YELAHANKA, BENGALURU – 64**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**OBSTACLE AVOIDING ROBOT**

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| OBJECTIVE: To build an obstacle avoidance robotic vehicle using ultrasonic sensors. |

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| OBJECTIVE: | FEATURES: |  |
| * The objective is to create a robot, which avoids obstacles present in its course. This is done with the help of an ultrasonic sensor, which sends ultrasonic rays, and ‘if’ in the case of an obstacle; the rays bounce back. Accordingly, the robot reroutes its course. * This moves forward with the vision of automated driving, obstacle detecting for military purposes. | * **The robot has an ultrasonic sensor, which is**   **Placed on a rotating platform, so it can looking around and redirects its path.** |
| SYSTEM REQUIREMENTS: |  |
| Hardware:   * An ultrasonic sensor * Arduino Uno Microcontroller * 4x DC Motor * Motor Driver Module | **SOFTWARE :**   * **Operating system:**   **Windows 10/XP/Vista/7/8/8.1**   * **Software: Open-source Arduino Software**   **(IDE)** |

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| Scope for future improvements:  We can further implement more features, such as “obstacle scanning” which can be useful mainly for military purposes. |

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