**LIST OF ABBREVATIONS**

|  |  |
| --- | --- |
| DAQ | Data Acquisition |
| RC | Resistance-Capacitor |
| DC | Direct Current |
| PWM | Pulse Width Modulation |
| AC | Alternating Current |
| BJT | Bipolar Junction Transistor |
| MOSFET | Metal Oxide Semiconductor Field Effect Transistor |
| IGBT | Insulated Gate Bipolar Transistor |
| WMR | Wheeled Mobile Robot |
| ICSP | In-Circuit Serial Programming |

**LIST OF SYMBOLS**

|  |  |
| --- | --- |
| Eb | Back emf |
| P | No.of Poles of The Permanent Magnet |
| Ø | Flux per Pole in Wb |
| Z | Total no.of Armature Conductor |
| N | Speed of The Motor in Rpm |
| Va | Armature Voltage |
| Ia | Armature Current |
| Ra | Armature Resistance |
| Øf | Field Flux |
| Tem | Electro Magnetic Field |
| Ke | Voltage Constant |
| 𝜔m | Speed of The DC Motor |
| La | Armature Winding Inductance |
| Vt | Voltage Source(Terminal Voltage) |
| ea | Induced emf |
| Kt | Torque Constant of The DC Motor |