

**MAR GREGORIOS COLLEGE OF ARTS & SCIENCE
DEPARTMENT OF ELECTRONICS & COMMUNICATION SCIENCE
ACADEMIC YEAR 2018-19
ADD-ON COURSE “ARDUINO”**

ARDUINO SYLLABUS

UNIT I

Architecture Review of Arduino Uno Board I/O port Overview of Embedded Systems.--Selecting the Right Arduino Board for Project- The Mindset for Learning Arduino Fundamentals of Arduino Electronics-Understanding a Circuit Diagram-Software and Hardware Tools for Arduino .

UNIT II

Embedded C Programming For Arduino Variables, Looping statements, Logical Operators, Mathematical operators, Programming with Arduino IDE, Compiling and Debugging using IDE

UNIT III

Overview of Input/output (I/O) Interfaces Configuring the Input Sensors LEDs, Switches, Buzzers, and Display Devices Configuring the Output Devices (LEDs and electro-mechanic robotics) Programming Sensor-to-Output Device Control

UNIT IV

Project: Automatic Light Adjustment System, Analog to Digital Conversion (ADC) ,Serial Communication and UART , sticks, motors and audio devices, Project: TBD, Testing and Debugging