



# ONE DAY HANDS ON WORKSHOP ON ARDUINO

## SSIP CELL-GEC-Godhra

### PROGRAM DESCRIPTION

One day workshop on Arduino will cover introduction to the Arduino development board, Arduino IDE Software, and Basic programming (Looping, Decision making , serial port etc.) of arduino. Workshop will also cover the interfacing of various sensors ( analog & digital) , LCD, DC Motor, Servo motor etc which helps students to develop various projects based on Arduino.



**VENUE:** Room No- 218, E&C.Dept., GECG

**DATE/ TIME:** 09/12/2019 (11:00 to 18:10)

### WHO CAN PARTICIPATE

All Engineering Brach students can participate in this workshop

### PREREQUISITES

- If possible kindly bring Arduino development board (Not Compulsory)
- If possible , Bring laptop with Arduino IDE installation. (Not Compulsory)

REGISTRATION LINK :- <https://ssipgecg.wixsite.com/ssip/events>

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## PROGRAM SCHEDULE

Date:- 09/12/2019

Sr. No	Timing	Session	Expert	Remarks
<b>1</b>	<b>11:00 Hrs to 11:30 Hrs.</b>	<b>Welcome Notes</b>		
2.	11:30 Hrs. to 13:30 Hrs.	<ul style="list-style-type: none"> <li>❖ Introduction to Arduino</li> <li>❖ Functions of each Pin of Arduino UNO</li> <li>❖ Introduction to Arduino IDE</li> <li>❖ Arduino IDE I/O Functions</li> <li>❖ Looping Techniques</li> <li>❖ Decision Making Techniques</li> <li>❖ Designing of 1st sketch</li> </ul>	Prof. Ankit Brahmbhatt. Elect. Dept. GECG	
<b>3.</b>	<b>13:30 Hrs to 14:00 Hrs</b>	<b>Tea/Lunch Break</b>		
4.	14:00 Hrs to 16:00 Hrs	<ul style="list-style-type: none"> <li>❖ Basic Interfacing and I/O Concept, Interfacing LED</li> <li>❖ Interfacing Switch and 7-seg LED display</li> <li>❖ Concept of ADC</li> <li>❖ Programming of serial port</li> <li>❖ Interfacing analog Input</li> <li>❖ Interfacing analog Sensors</li> <li>❖ Initialization for serial port and programming of serial port</li> <li>❖ Interfacing 16x2 LCD and its programming</li> </ul>	Prof. Ankit Brahmbhatt. Elect. Dept. GECG	
<b>5.</b>	<b>16:00 Hrs to 16:15 Hrs</b>	<b>Tea Break</b>		
6.	16:15 Hrs to 17:45 Hrs.	<ul style="list-style-type: none"> <li>❖ Controlling a DC motor (PWM)</li> <li>❖ Interfacing L293D with Arduino</li> <li>❖ Interfacing of Ultrasonic Module</li> <li style="padding-left: 20px;">Interfacing a Servo Motor</li> </ul>	Prof. Ankit Brahmbhatt. Elect. Dept. GECG	
<b>7.</b>	<b>17:45 Hrs to 18:10</b>	<b>Valedictory Function</b>		