



AUTONOMOUS

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A REPORT ON "Introduction to Arduino Board"

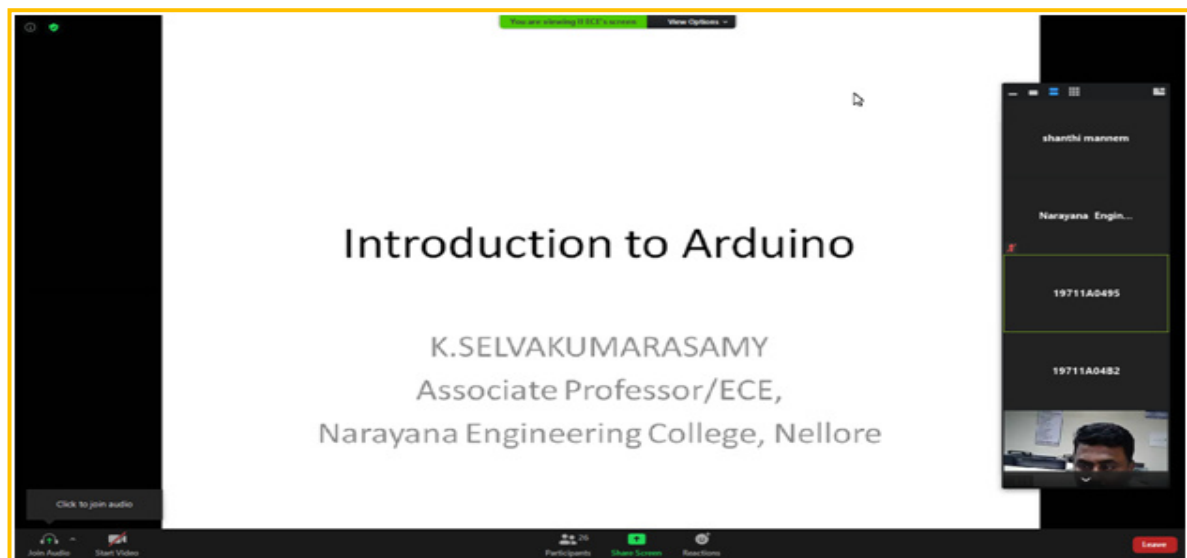
1	Name of the Activity/Event	Value Added course on " Introduction to Arduino Board "		
2	Date of Activity/Event	18/01/2021 To 23/01/2021		
3	Organized by	Department of Electronics and Communication Engineering		
4	Place of Activity/event	Visvesvaraya auditorium		
5	Resource persons / guest / organization	Mr. K.Selvakumarasamy, Associate Professor / ECE Department, Narayana Engineering College, Nellore		
6	Type of activity/Event	Value Added Course		
7	Activity/Event objectives	<ul style="list-style-type: none"> • This course aims at providing an opportunity for students to enrich their knowledge and skill in developing various solutions for solving engineering problems in the society. • This program serves as a platform for students to work with the recent trends in Arduino Board. 		
8	Participation	Students	Faculty	Total Participation
		137	-	137
9	General remarks	<ol style="list-style-type: none"> 1. Learn the concept and architecture of the Arduino Board 2. Understanding Arduino Board concepts 3. Arduino board related protocols 4. Wireless technologies used in Arduino Board enabled systems 5. Explanation on Arduino Board domain related to Hardware, Sensors and connectivity protocols. 6. Walking through various connectivity methodologies. 		
10	Suggested Improvements	Need Hands-on session and more real time examples.		
11	Enclosures	<ol style="list-style-type: none"> 1. Program report with Snapshots 2. Attendance sheet 		
12	Signature of In Charge			

The **E**lectronics and **C**ommunication **E**ngineering department has organized a **Value added course** on **“Introduction to Arduino Board”** from **18/01/2021 To 23/01/2021**. The resource person was K.Selvakumarasamy Associate Professor of ECE Department, Narayana Engineering College, Nellore. The II B.Tech students from the ECE department have attended this value added course.

The resource person shared his insights, real life scenarios, practical use cases and their solutions on the Arduino Board. The course started by providing real Arduino Board experience at the registration desk itself – when students' mobile flashed up with the workshop welcome screen on their arrival at the registration desk.

On the first day the Session started with a keynote lecture on Arduino Board and the future of the connected world. It also provided the insights of Arduino Board applications for smart home, smart cities, smart lights, smart retails, smart phones, energy issues, health and lifestyle and car connect.

The next session began with how the proliferation of connected devices and the Technology capabilities is transforming the industry with cloud data. He also discussed the various areas of Arduino Board analytics application and World of Wearable Applications which includes Health Care, Smart Appliances and Wearable Technology.

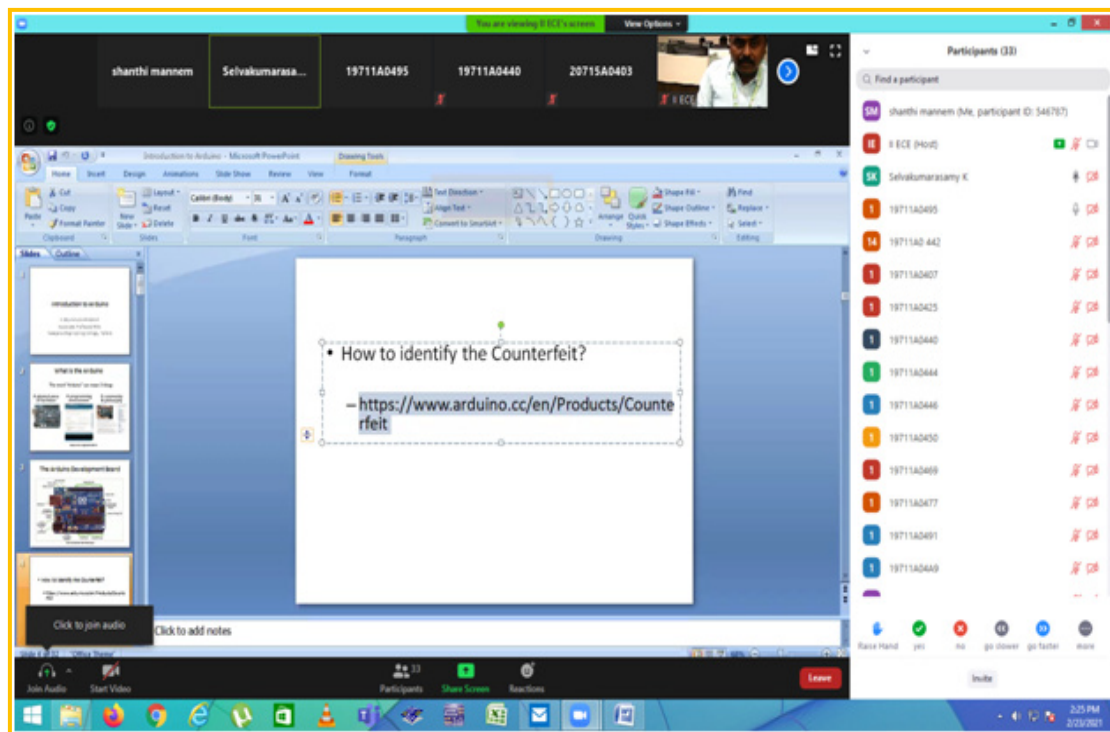


Resource Person explaining the Introduction of Arduino Board

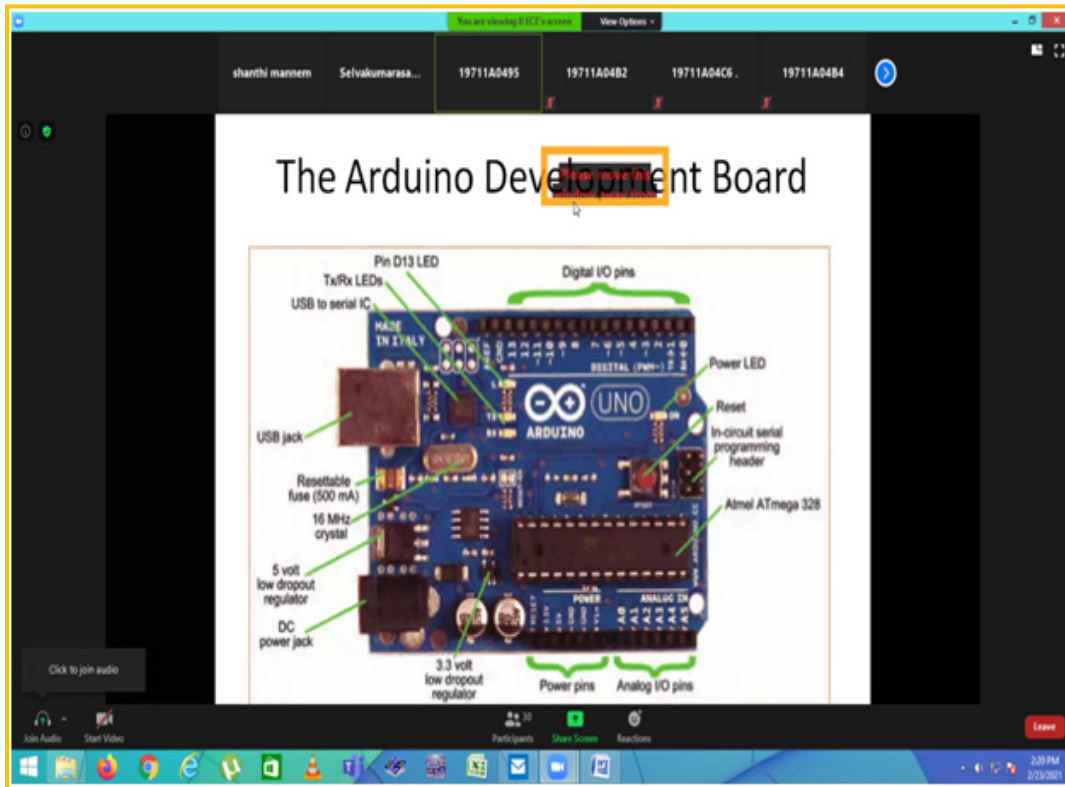
The following session continued with the Computing Trends which includes Pre Computer Era, Wired Computing Era, Wireless Computing Era and Web of World. Working of IoT which includes Sensors & Actuators, its Connectivity with the people and Processes were discussed. To illustrate the concept of computing more lucid, he shared videos on technologies related to it

In the later sessions, he discussed Four Layers Model of Arduino Board i.e., Integrated Applications, Information Processing, Network Construction and sensing & identification. He also discussed the current status and future prospects of the Arduino Board.

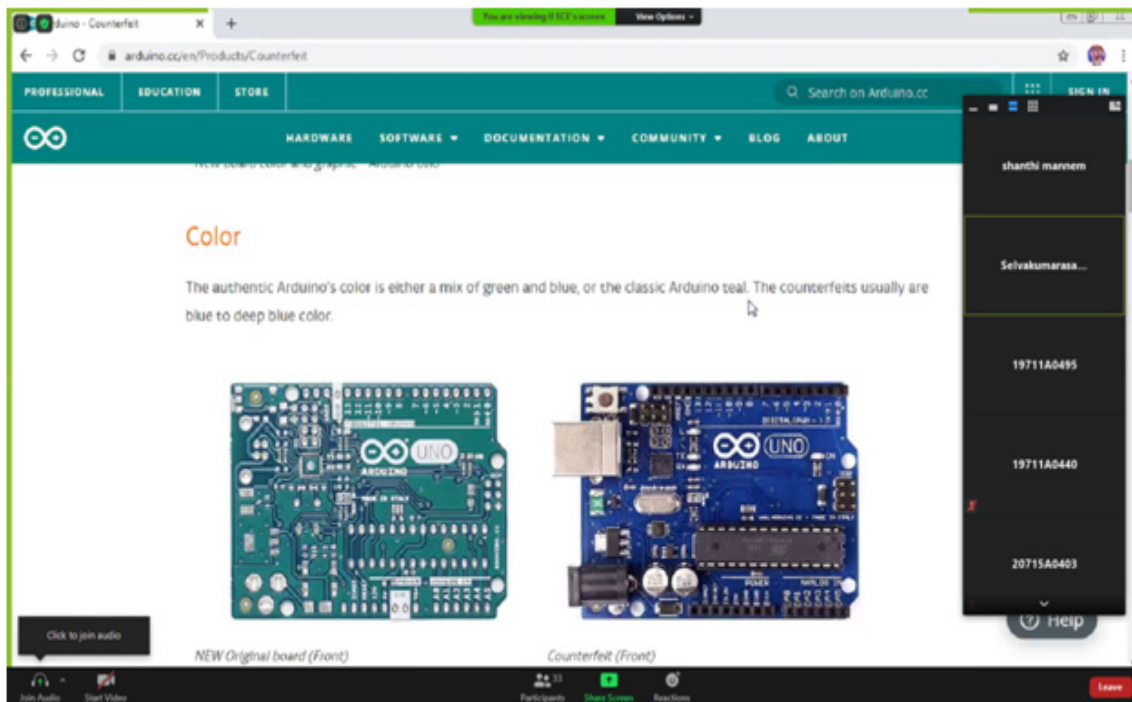
Arduino Board Security which includes mobile security, access control, authentication, privacy, Policy Enforcement, Secure Middleware and Confidentiality were discussed with real time examples and the session was made really interactive by providing an opportunity to suggest a solution to real life scenarios.



Later on the course was planned to provide hands-on experience with Arduino Board devices and applications. Students were introduced to the wifi concept from a programming point of view and its relevance to Arduino Board components. All the students participated in coding for accessing light, blinking of LEDs and sensing a key pressed on an Arduino Board kit through an android application.



Explaining the challenges & Applications of Arduino Board



Enlightening the Young Minds about the importance of Arduino Board in real world