

E.G.S.PILLAY ENGINEERING COLLEGE, NAGAPATTINAM  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING  
CIRCULAR

INTERNAL COMMUNICATION

21.09.2019

All the third year students are instructed to attend the value added course on "Embedded system design using arduino" to be held between 23.09.2019 to 28.09.2019

Venue: Seminar Hall

Time: 09.30 am - 04.30 pm

  
HOD/EEE

Copy to: III year class in charge, all faculty members, non teaching staffs

ATTESTED  
  
Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL  
E.G.S. Pillay Engineering College,  
Thethi, Nagore - 611 002.  
Nagapattinam (Dt) Tamil Nadu.

Nagapattinam.  
20.09.2019

From

M.Vijayakumar,  
Director- Consultancy Services,  
E.G.S.Pillay Engineering College (Autonomous),  
Nagapattinam.

To

The Honorable Secretary,  
E.G.S.Pillay Engineering College (Autonomous),  
Nagapattinam.

Through: HOD/EEE &ECE

Respected Sir,

Sub: Permission for conduct the Training – Reg.

It is planned to organize a special hands on training on “**Embedded System Design using Arduino**” for the benefit of the students of final year EEE & ECE branch in the month of September 2019 (dated on 23/09/2019 to 27/09/2019) five days in our college premises. In this regard, I request your kind self to permit us to conduct this program and give us permission to utilize the power system simulation lab and one class room with projector for those days. Kindly do the needful.

Thanking You,


Yours Sincerely,

(M.Vijayakumar)

Forwarded to Secretary Sir,  
V-mohan  
(HOD/EEE & ECE)

ATTESTED  
Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL  
E.G.S. Pillay Engineering College,  
Thethi, Nagapattinam - 61  
Nagapattinam, Tamil Nadu

|  |  |   |
|--|--|---|
| <p><b>E.G.S. PILLAY<br/>ENGINEERING COLLEGE<br/>(AUTONOMOUS)</b><br/>Nagapattinam - 611 002</p> <p>Affiliated to Anna University,<br/>Chennai Approved by AICTE, New<br/>Delhi</p> <p>ACCREDITED by NAAC with<br/>GRADE 'A'</p> <p>Department of Electrical and<br/>Electronics Engineering<br/>(Accredited by NBA)</p> <p><b>VALUE ADDED COURSE<br/>ON<br/>"Embedded system design<br/>using arduino"</b></p> | <p style="text-align: center;"><i>Syllabus</i></p> <ul style="list-style-type: none"> <li>&gt; Introduction</li> <li>&gt; Arduino io functions</li> <li>&gt; Arduino time</li> <li>&gt; Arduino display</li> <li>&gt; Arduino sensor</li> <li>&gt; Arduino communications</li> <li>&gt; Arduino secondary integrations</li> <li>&gt; Real time projects</li> </ul> | <p><b>Course Overview</b></p> <p><b>Resource Person</b><br/>Mr.M.Vijayakumar,<br/>Senior Engineer, R&amp;D<br/><i>(Associate professor, jeebh.org)</i></p> <p><b>Course Coordinator</b><br/>Mr.K.Nandakumar, AP/EE,<br/>Mrs.S.Latha, AP/EE.</p> |
|  |  |   |

|   |   |  |
|---|---|--|
| <p><b>ABOUT THE INSTITUTION</b></p>  <p>E. G. S. Pillay Engineering College (Autonomous) is one of the pioneering non-grant engineering Colleges in the state. It was established by the E. G. S. Pillay &amp; Sons Educational &amp; Charitable Trust, Nagapattinam in the year 1995 with the sanction of the Government of Tamil Nadu, approval of the All-India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai. The college has accredited by NAAC with 'A' Grade and all the UG programmes are accredited by NBA. The College has earned the reputation of being one of the most preferred colleges by the students and parents all these years. Known for its excellent infrastructure and facilities for learning, the outstanding non-grant engineering college has registered impressive performance consistently. A gate-way to success, the college has now set on long-range planning to enlarge and enrich its programs and activities to empower the youth who aspire to become successful Engineers, Scientists and Managers. A pathway to success, the college has now set on long-range planning to enlarge and enrich its programs and activities to empower the youth who aspire to become successful Engineers, Scientists and Managers.</p> | <p style="text-align: center;"><b>Vision</b></p> <p><i>Empowered to transform our institution into a "Global Center of Academic Excellence"</i></p> <p style="text-align: center;"><b>Mission</b></p> <ul style="list-style-type: none"> <li>✓ To provide world class education to the student and to bring up the quality education.</li> <li>✓ To provide quality education to the students and to provide them with the necessary resources to achieve excellence in learning - learning and application oriented.</li> <li>✓ To recruit competent faculty and staff and to provide opportunity to upgrade their knowledge and skills.</li> <li>✓ To have regular interaction with the industries in the areas of R&amp;D and after consultancy, consulting and collaborations.</li> <li>✓ To establish centers of excellence in the emerging areas of research.</li> <li>✓ To offer continuing education and non-formal educational education programmes that are beneficial to the society.</li> </ul> | <p style="text-align: center;"><b>Department Vision</b></p> <p><i>The development of professional and technical students, competent engineers and technicians in engineering.</i></p> <p style="text-align: center;"><b>Department Mission</b></p> <p><i>To ensure the high quality of education and to provide the best of education to the students in engineering and technology. To provide the best of education to the students in engineering and technology. To provide the best of education to the students in engineering and technology. To provide the best of education to the students in engineering and technology.</i></p> <p style="text-align: center;">Date: 2008-2009 - 2009-2010</p> <p style="text-align: center;">(Five Days)</p> <p style="text-align: center;">Time: 9.30 am to 4.30 pm</p> |
|---|---|--|

**ATTESTED**



**Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL**

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Nagapattinam (Dt) Tamil Nadu.**

**E. G. S. PILLAY ENGINEERING COLLEGE (Autonomous)**  
**NAGAPATTINAM**

**Department of Electrical & Electronics Engineering**

**Date: 30.09.2019**

**Hands on Training on Embedded System Design using Aurdino – Assessment**

**Academic Year: 2019 – 2020**

**Batch: 2016 – 2020**

**Semester: VII**

**Year: IV**

| S.No | Register Number | Student Name         | Duration   | Test I (25) | Test II (25) | Final Test (50) | Total Marks |
|------|-----------------|----------------------|------------|-------------|--------------|-----------------|-------------|
| 1    | 820816105001    | Abinaya V            | 23.09.2019 | 25          | 25           | 47              | 97          |
| 2    | 820816105003    | Abitha A             |            | 25          | 25           | 50              | 100         |
| 3    | 820816105004    | Agalya C             |            | 25          | 25           | 48              | 98          |
| 4    | 820816105005    | Agathees Babu M      |            | 25          | 25           | 50              | 100         |
| 5    | 820816105006    | Akshayadevi N        |            | 24          | 23           | 49              | 96          |
| 6    | 820816105007    | Annadurai P          |            | 25          | 25           | 50              | 100         |
| 7    | 820816105008    | Aparna J             |            | 25          | 25           | 50              | 100         |
| 8    | 820816105009    | Balaguru M           |            | 25          | 25           | 49              | 99          |
| 9    | 820816105011    | Bavithkumar P        |            | 24          | 25           | 48              | 97          |
| 10   | 820816105012    | Bharathan M          |            | 25          | 25           | 50              | 100         |
| 11   | 820816105013    | David G              |            | 23          | 23           | 48              | 94          |
| 12   | 820816105014    | Ganesh S             |            | 25          | 25           | 50              | 100         |
| 13   | 820816105015    | Gokila T             |            | 25          | 25           | 50              | 100         |
| 14   | 820816105016    | Gopinath B           |            | 25          | 25           | 49              | 99          |
| 15   | 820816105018    | Hariharan B          |            | 24          | 25           | 50              | 99          |
| 16   | 820816105019    | Hariharan K          |            | 25          | 25           | 50              | 99          |
| 17   | 820816105020    | Hariharasudhan M     |            | 25          | 25           | 48              | 98          |
| 18   | 820816105021    | Jayachandiran E      | 28.09.2019 | 25          | 23           | 50              | 98          |
| 19   | 820816105022    | Kalaivani            |            | 25          | 25           | 50              | 100         |
| 20   | 820816105023    | Kaviya K             |            | 24          | 25           | 49              | 99          |
| 21   | 820816105024    | Kaviyashree K M      |            | 25          | 25           | 50              | 99          |
| 22   | 820816105025    | Keerthika R          |            | 23          | 25           | 50              | 98          |
| 23   | 820816105026    | Kishore P            |            | 25          | 25           | 50              | 100         |
| 24   | 820816105028    | Mohamed Najumudeen B |            | 24          | 25           | 47              | 97          |
| 25   | 820816105029    | Mohamed Yusuff J     |            | 25          | 25           | 50              | 100         |
| 26   | 820816105030    | Mohanraj P           |            | 24          | 25           | 48              | 97          |
| 27   | 820816105031    | Naveenkumar S        |            | 25          | 25           | 50              | 100         |
| 28   | 820816105032    | Naveenkumar S        |            | 24          | 25           | 50              | 99          |
| 29   | 820816105034    | Piravin K            |            | 24          | 25           | 50              | 99          |
| 30   | 820816105036    | Praveen L            |            | 25          | 25           | 49              | 99          |
| 31   | 820816105037    | Praveenkumar M       |            | 23          | 25           | 50              | 98          |
| 32   | 820816105038    | Ragavan R            |            | 25          | 25           | 50              | 100         |
| 33   | 820816105041    | Rameshkumar M        |            | 23          | 25           | 47              | 95          |
| 34   | 820816105042    | Sabecna P            |            | 25          | 25           | 50              | 100         |
| 35   | 820816105043    | Sadha Sivam S        |            | 24          | 25           | 50              | 99          |
| 36   | 820816105044    | Saikumar A           |            | 25          | 25           | 48              | 98          |
| 37   | 820816105046    | Saminathan K         |            | 24          | 25           | 50              | 99          |
| 38   | 820816105047    | Sarojini R           |            | 25          | 25           | 50              | 100         |
| 39   | 820816105048    | Shalini J            |            | 23          | 25           | 50              | 98          |
| 40   | 820816105049    | Sharini T            |            | 25          | 25           | 50              | 100         |
| 41   | 820816105050    | Sheyam Kumaran B     |            |             |              |                 |             |

**ATTESTED**

**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**  
 E.G.S. Pillay Engineering College,  
 Thethi, Nagore - 614 002,  
 Nagapattinam (Dt) Thanjavur.



**E. G. S. PILLAY ENGINEERING COLLEGE (Autonomous)**  
**NAGAPATTINAM**

**Department of Electrical & Electronics Engineering**

Date: 10/09/2019

**Hands on Training on Embedded System Design using Aurdino - Assessment**


Academic Year: 2019 - 2020

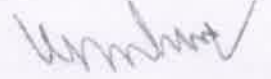
Batch: 2016 - 2020

Semester: VII

Year: IV

|    |              |                     |            |    |    |    |     |
|----|--------------|---------------------|------------|----|----|----|-----|
| 42 | 820816105051 | Sridher B           |            | 24 | 25 | 49 | 98  |
| 43 | 820816105052 | Surendhar S         |            | 25 | 25 | 50 | 100 |
| 44 | 820816105053 | Thiravidamni S      |            | 23 | 25 | 50 | 98  |
| 45 | 820816105054 | Venkatesan S        |            | 25 | 25 | 50 | 100 |
| 46 | 820816105055 | Vignesh G           |            | 25 | 25 | 48 | 98  |
| 47 | 820816105056 | Vignesh K           |            | 23 | 25 | 50 | 98  |
| 48 | 820816105057 | Vijay R             | 23.09.2019 | 25 | 25 | 50 | 100 |
| 49 | 820816105058 | Vinothraj R         |            | 24 | 25 | 50 | 99  |
| 50 | 820816105301 | Abirami K           | 28.09.2019 | 25 | 25 | 48 | 98  |
| 51 | 820816105309 | Neethu Sathesh S    |            | 24 | 25 | 50 | 99  |
| 52 | 820816105302 | Guhan J             |            | 25 | 25 | 50 | 100 |
| 53 | 820816105303 | Hamed Jafer Fayas A |            | 23 | 25 | 48 | 96  |
| 54 | 820816105305 | Karkil Vijay D      |            | 25 | 25 | 50 | 100 |
| 55 | 820816105306 | Manivannan V        |            | 24 | 25 | 47 | 96  |
| 56 | 820816105307 | Mohamed Moumini M   |            | 25 | 25 | 50 | 100 |
| 57 | 820816105310 | Praveen V           |            | 23 | 25 | 48 | 96  |
| 58 | 820816105311 | Ragul J             |            | 25 | 25 | 50 | 100 |
| 59 | 820816105312 | Rajaprakash R       |            | 25 | 25 | 50 | 100 |
| 60 | 820816105313 | Ruban V             |            | 25 | 25 | 50 | 100 |
| 61 | 820816105314 | Santhosh R          |            | 23 | 25 | 48 | 96  |
| 62 | 820816105315 | Sivanathan R        |            | 25 | 25 | 50 | 100 |
| 63 | 820816105316 | Sivanesan M         |            | 24 | 25 | 50 | 99  |
| 64 | 820816105317 | Tamilvanan R        |            | 25 | 25 | 50 | 100 |
| 65 | 820816105318 | Tamizharasan N      |            | 25 | 25 | 50 | 100 |
| 66 | 820816105320 | Ukenthalan M        |            | 25 | 25 | 48 | 98  |
| 67 | 820816105701 | Santhosh R          |            | 25 | 25 | 50 | 100 |
| 68 | 820816105702 | Samuel Nisan N      |            | 25 | 25 | 50 | 100 |
| 69 | 820816105501 | Valampurinathan N   |            | 25 | 25 | 50 | 100 |

  
 Coordinator

  
 HoD

**ATTESTED**  
  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**  
 E.G.S. Pillay Engineering College,  
 Thethi, Nagore - 611 002.  
 Nagapattinam (Dt) Tamil Nadu.



## Certificate

The Consultancy Services Division of E.G.S.Pillay Engineering College (Autonomous),  
Certifies That *Mr/Ms. SWANESAN. P.* has been awarded this  
certificate for the successful completion of Short-Term hands on training programme of  
**Embedded System Design & Software Development using Arduino Controller**  
from **28-09-19 to 28-09-19** organized by the Department of EEE, E.G.S.Pillay Engineering College.

Certificate No. EGSPCS/21/EEE/ETRON/2147/015  
Issue Date: 28-09-19

*[Signature]*  
Dr. S. Narayanaswamy  
Training coordinator

*[Signature]*  
Dr. V. Mohan  
11/09/19



*[Signature]*  
Dr. M. Subramanian

ATTESTED

*[Signature]*  
Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL  
E.G.S. Pillay Engineering College,  
Thethi, Nagore - 611 002.  
Nagapattinam (Dt) Tamil Nadu.



### Certificate

The Consultancy Services Division of E.G.S.Pillay Engineering College (Autonomous) has been awarded a certificate for the successful completion of Short-Term hands on training programme on Embedded System Design & Software Development using Arduino Controller from 23-09-19 to 28-09-19 organized by the Department of EEE, E.G.S.Pillay Engineering College.

Certificate No. EGSPCS/CONSULTANCY/O/S  
Issue Date 30-09-19

*[Signature]*  
Dr. I. Sureshbabu  
Department Coordinator

*[Signature]*  
Dr. V. Mohan  
HOD/EEE

ATTESTED

*[Signature]*  
Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL  
E.G.S. Pillay Engineering College,  
Thethi, Nagore - 611 002,  
Nagapattinam (Dt) Tamil Nadu.



**E. G. S. PILLAY ENGINEERING COLLEGE (Autonomous)**  
**NAGAPATTINAM**

**Department of Electrical & Electronics Engineering**

Date: 30.09.2019

Hands on Training on Embedded System Design using Aurdino - Assessment

Academic Year: 2019 - 2020

Batch: 2016 - 2020

Semester: VII

Year: IV

**Course Outcomes:**

- (i) Students will be able to understand the importance of arduino
- (ii) Students will be able to demonstrate the design and applications of embedded systems using Arduino
- (iii) Students will be able to design an Arduino board for given applications.

**Mapping of course outcomes with PO and PSO**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1 | 3   | 3   | 3   |     | 2   |     | 2   |     | 2   |      | 2    | 1    |      | 3    | 2    |
| CO2 | 3   | 3   | 3   |     | 2   |     | 2   |     | 2   |      | 2    | 1    |      | 3    | 2    |
| CO3 | 3   | 3   | 3   |     | 2   |     | 2   |     | 2   |      | 2    | 1    |      | 3    | 2    |
| Avg | 3   | 3   | 3   |     | 2   |     | 2   |     | 2   |      | 2    | 1    |      | 3    | 2    |

**Assessment Summary:**

Number of students attended training program : 69  
 The target for this training program : Each student should get > 95 marks  
 The number of students score more than 90 marks : 68  
 The percentage attainment of this course is : 98.55

**Remarks:**

The above analysis shows that **all the outcomes were attained.**

**Attainment Matrix: COs Vs POs / PSOs**

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| CO1 | 3   | 3   | 3   |     | 2   |     | 2   |     | 2   |      | 2    | 1    |      | 3    | 2    |
| CO2 | 3   | 3   | 3   |     | 2   |     | 2   |     | 2   |      | 2    | 1    |      | 3    | 2    |
| CO3 | 3   | 3   | 3   |     | 2   |     | 2   |     | 2   |      | 2    | 1    |      | 3    | 2    |
| Avg | 3   | 3   | 3   |     | 2   |     | 2   |     | 2   |      | 2    | 1    |      | 3    | 2    |

*[Signature]*  
HoD

**ATTESTED**

*[Signature]*  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**  
E.G.S. Pillay Engineering College,  
Thethi, Nagore - 611 002,  
Nagapattinam (Dt) Tamil Nadu.



**E. G. S. PILLAY ENGINEERING COLLEGE (Autonomous)  
NAGAPATTINAM**

**Department of Electrical & Electronics Engineering**

Date: 30.09.2019

Hands on Training on Embedded System Design using Aurdino – Assessment

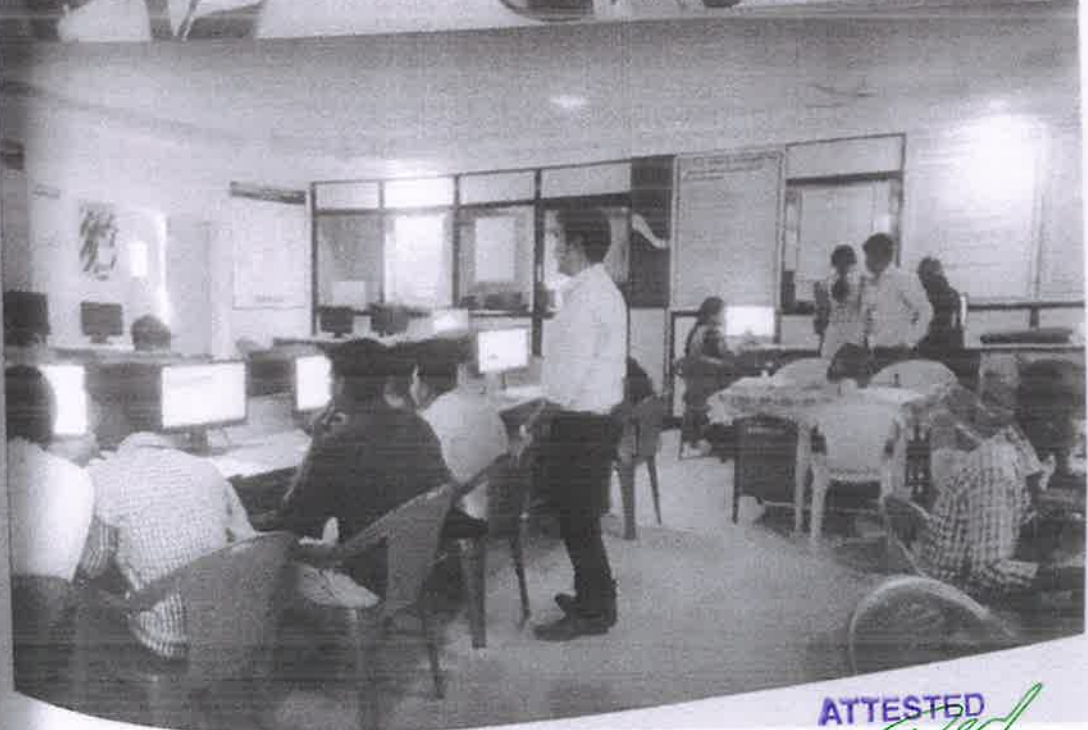
Academic Year: 2019 – 2020

Batch: 2016 – 2020

Semester: VII

Year: IV

Photos Taken during Training Program



**ATTESTED**

**Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL**

**E.G.S. Pillay Engineering College,  
Thethi, Nagapattinam - 625 011**

**Registration No. 100/2019**

**E.G.S.PILLAY ENGINEERING COLLEGE, NAGAPATTINAM**  
**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
CIRCULAR

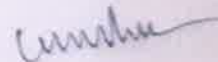
INTERNAL COMMUNICATION

05.07.2019

**All the third year students are instructed to attend the value added course on "Embedded system design using arduino" to be held between 08.07.2019 to 14 .07.2019.**


Venue: Seminar Hall

Time: 09.30 am - 04.30 pm

  
HOD/EEE

Copy to: III year class in charge, all faculty members, non teaching staffs

ATTESTED

  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**  
**E.G.S. Pillay Engineering College,**  
**Thethi, Nagore - 611 002.**  
**Nagapattinam (Dt) Tamil Nadu.**

**E.G.S. PILLAY  
ENGINEERING COLLEGE  
(AUTONOMOUS)**

Nagapattinam - 611 002

Affiliated to Anna University,  
Chennai | Approved by AICTE, New  
Delhi

ACCREDITED by NAAC With  
GRADE 'A'

Department of Electrical and  
Electronics Engineering  
(Accredited by NBA)

VALUE ADDED COURSE  
ON  
"Embedded system design  
using arduino"

Syllabus

- > Introduction
- > Arduino I/O functions
- > Arduino time
- > Arduino displays
- > Arduino sensor
- > Arduino communications
- > Arduino secondary integrations
- > Real time projects

Course Overview

Resource Person

Mr.M.Vijayakumar,  
Senior Engineer ,R&D  
(Oversees embedded system development)

Course Coordinator

Mr.K.Nandakumar, AP/EEL  
Mrs.S.Latha, AP/EEL

ABOUT THE INSTITUTION



E. G. S. Pillay Engineering College (Autonomous) is one of the pioneering non-grant engineering colleges in the State. It was established by the E. G. S. Pillay Educational Trust in Chennai in the year 1995 with the sanction of the Government of Tamil Nadu, approval of the All-India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai. The college has accredited by NAAC with 'A' Grade and all the UG programmes are accredited by NBA. The College has earned the reputation of being one of the most preferred colleges by the students and parents all these years. Known for its excellent infrastructure and facilities for learning, the outstanding non-grant engineering college has registered impressive performance consistently. A gate-way to success, the college has now set up long-range planning to enlarge and enrich its programs and activities to empower the youth who aspire to become successful Engineers, Scientists and Managers. A gate-way to success, the college has now set up long-range planning to enlarge and enrich its programs and activities to empower the youth who aspire to become successful Engineers, Scientists and Managers.

Vision

*Emotional to transform our institution into  
a "Global Centre of Academic Excellence"*

Mission

- ✓ To provide world class education to the students and to bring out their inherent talents
- ✓ To create state-of-the-art facilities and resources required to achieve excellence in teaching-learning and supplementary processes
- ✓ To recruit competent faculty and staff and to provide opportunity to upgrade their knowledge and skills
- ✓ To have regular interaction with the industries in the areas of R&D and offer consultancy, training and testing services
- ✓ To establish centre of excellence in the emerging areas of research
- ✓ To offer continuing education and non-formal vocational education programmes that are beneficial to the society

Department Vision

The department is envisioned to produce globally competent electrical and electronics engineering

Department Mission

- To impart the contemporary knowledge in the field of electrical and electronics engineering with high human values
- To offer state-of-the-art facilities for conducive learning and conducting research
- To train the students for professional career and higher education by imparting self-learning and interpersonal skills.

Date: 8 - 7 - 2019 to 14-7-2019

(Five Days)

Time: 9.30 am to 4.30 pm

ATTESTED

  
Dr. S. RAMABALAN, M.E., Ph.D.,  
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**E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
NAGAPATTINAM.**

**Certificate Course In  
Embedded System Design Using Arduino  
SYLLABUS**

**1. Objective:**

An embedded system is a combination of hardware and software provided that both should be synchronized with each other. Some examples are as follows: industrial machines, automobiles, medical equipment, cameras, household appliances, airplanes, vending machines etc. The Arduino is an open-source computer hardware/software platform for building digital devices and interactive objects that can sense and control the physical world around them. In this course you will learn how the Arduino platform works in terms of the physical board and libraries and the IDE (Integrated Development Environment). The course will also cover programming the Arduino using C code and accessing the pins on the board via the software to control external devices. With this module student will get firm career growth in Electronics domain

**2. Description:**

This course is intended for enthusiastic students or hobbyists. With Arduino, one can get to know the basics of micro-controllers and sensors very quickly and can start building prototype with very little investment. This course is intended to make you comfortable in getting started with Arduino. Prerequisites We assume that you are already familiar with the basics of C and C++. Knowledge in other programming language especially the OOP is an added advantage. A basic understanding of microcontrollers and electronics is also expected.

**Prerequisites:**

We assume that you are already familiar with the basics of C and C++. Knowledge in other programming language especially the OOP is an added advantage. A basic understanding of microcontrollers and electronics is also expected

**3. Learning Outcome the students will:**

- ✓ Learn the basics of electronics, including reading schematics (electronics diagrams)
- ✓ Learn how to prototype circuits with a breadboard
- ✓ Learn the Arduino programming language and IDE
- ✓ Program basic Arduino examples
- ✓ Prototype circuits and connect them to the Arduino
- ✓ Program the Arduino microcontroller to make the circuits work
- ✓ Connect the Arduino microcontroller to a serial terminal to understand communication and stand-alone use
- ✓ Explore the provided example code and online resources for extending knowledge about the capabilities of the Arduino microcontroller

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Nagapattinam (Dt) Tamil Nadu.





### Certificate

The Consultancy Services Division of E.G.S.Pillay Engineering College (Autonomous) Certifies That Mr/Ms. T. VIGNESH has been awarded this certificate for the successful completion of Short-Term hands on training programme on **Embedded System Design & Software Development using Arduino Controller** from 08-01-19 to 14-01-19, organized by the Department of EEE, E.G.S.Pillay Engineering College.

Certificate No: EGSPCS/2019/EEETR/01/24/019  
Issue Date: 16-01-19



*[Signature]*  
Dr. T. Sureshpedmanathan  
Department co-ordinator

*[Signature]*  
Dr. V. Mohan  
HOD/EEE

*[Signature]*  
Prof. M. Vijayakumar  
Director Consultancy Services

**ATTESTED**

*[Signature]*  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
PRINCIPAL  
E.G.S. Pillay Engineering College,  
Thelvi, Nagore - 611 002,  
Nagapattinam (Dt) Tamil Nadu.

TRAINING COURSE ON "EMBEDDED SYSTEM DESIGN USING ARDUINO CONTROLLER"

FEEDBACK REPORT

8.07.2019 to 14.07.2019

| Sl. No. | Reg. No.     | Name | The program objectives are clearly stated and readily available | The program objectives are clearly stated and readily available | The program objectives are clearly stated and readily available | The program objectives are clearly stated and readily available | The program objectives are clearly stated and readily available | The program objectives are clearly stated and readily available |
|---------|--------------|------|---|---|---|---|---|---|
| 1       | 190101010101 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 2       | 190101010102 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 3       | 190101010103 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 4       | 190101010104 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 5       | 190101010105 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 6       | 190101010106 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 7       | 190101010107 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 8       | 190101010108 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 9       | 190101010109 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 10      | 190101010110 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 11      | 190101010111 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 12      | 190101010112 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 13      | 190101010113 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 14      | 190101010114 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 15      | 190101010115 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 16      | 190101010116 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 17      | 190101010117 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 18      | 190101010118 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 19      | 190101010119 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 20      | 190101010120 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 21      | 190101010121 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 22      | 190101010122 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 23      | 190101010123 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 24      | 190101010124 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 25      | 190101010125 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 26      | 190101010126 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 27      | 190101010127 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 28      | 190101010128 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 29      | 190101010129 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 30      | 190101010130 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 31      | 190101010131 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 32      | 190101010132 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 33      | 190101010133 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 34      | 190101010134 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 35      | 190101010135 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 36      | 190101010136 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 37      | 190101010137 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 38      | 190101010138 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 39      | 190101010139 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 40      | 190101010140 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 41      | 190101010141 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 42      | 190101010142 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 43      | 190101010143 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 44      | 190101010144 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 45      | 190101010145 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 46      | 190101010146 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 47      | 190101010147 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 48      | 190101010148 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 49      | 190101010149 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |
| 50      | 190101010150 | ...  | ...   | ...   | ...   | ...   | ...   | ...   |

ATTESTED 

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Nagapattinam (Dt) Tamil Nadu.

  
(COURSE COORDINATOR)

| S.NO. | NAME OF THE STUDENT | ROLL NO.  | 08/07/2019 |    | 09/07/2019 |    | 10/07/2019 |    | 11/07/2019 |    | 12/07/2019 |    | 13/07/2019 |    | 14/07/2019 |    |
|-------|---------------------|-----------|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|
|       |                     |           | FN         | AN | FN         | AN | FN         | AN | FN         | AN | FN         | AN | FN         | AN | FN         | AN |
| 31.   | KARTHIKESH.K        | E17EER025 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 32.   | MADHAVAN S          | E17EER028 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 33.   | MOHAMMAD AMANULLA M | E17EEL306 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 34.   | VIGNESH.T           | E17EER058 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 35.   | BALAJI.S            | E17EER098 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 36.   | RAGUL.D             | E17EER036 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 37.   | ASHOKRAJ.B          | E17EER006 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 38.   | IBTIHARUDEEN.S      | E17EER022 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 39.   | VIJAY.G             | E17EER059 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 40.   | KURALARASANS        | E17EER027 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 41.   | KLARANTH YINARAT.A  | E17EER063 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 42.   | SAIVIGNESH.M        | E17EER045 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 43.   | DURAIVALAVAN.K      | E17EER017 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 44.   | DHIVAKARA           | E17EER015 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 45.   | RAMESH.M            | E17EER041 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 46.   | RAJESHKANNAN.R      | E17EER058 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 47.   | MOHANRAJ.S          | E17EER036 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 48.   | HEROJAN S. JEROMAN  | E17EER024 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 49.   | SARAVANAN.S         | E17EER048 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 50.   | VASANTHI            | E17EER054 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |

|     |                    |           |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----|--------------------|-----------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 51. | BALA MURUGAN.R     | E17EER010 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 52. | NAVANEETHAKANNAN   | E17EER031 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 53. | SYED EKINUL RAHMAN | E17EEL314 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 54. | RAJMANER           | E17EER040 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 55. | AKASH.J            | E17EER002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 56. | MADHAVAN           | E17EEL305 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 57. | BALAKUMARAN.V      | E17EER009 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 58. | AJITH KUMAR        | E17EER001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 59. | GANESHP            | E17EER018 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60. | RAJKUMAR           | E17EER039 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

*[Signature]*  
Department Coordinator

*[Signature]*  
HOD/EEF

*[Signature]*  
Director/Consultancy Services

ATTESTED  
*[Signature]*  
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Thethi, Nagore - 611 002.  
Nagapattinam



TRAINING COURSE ON "EMBEDDED SYSTEM DESIGN USING ARDUINO CONTROLLER "

Attendance sheet

8.07.2019 to 14.07.2019

| Attendance Sheet |                     |           |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
|------------------|---------------------|-----------|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|
| S.NO.            | NAME OF THE STUDENT | ROLL NO.  | 08/07/2019 |    | 09/07/2019 |    | 10/07/2019 |    | 11/07/2019 |    | 12/07/2019 |    | 13/07/2019 |    | 14/07/2019 |    |
|                  |                     |           | IN         | AN | IN         | AN | IN         | AN | IN         | AN | IN         | AN | IN         | AN | IN         | AN |
| 1                | BALAMANRANGAN S     | E17EEL310 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 2                | VIGNESHC            | E17EEL316 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 3                | VASANTHAN S         | E17EER055 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 4                | VINIVAS             | E17EER061 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 5                | ATCHAYAR            | E17EER007 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 6                | DIANISRI S          | E17EER014 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 7                | DIVYA J             | E17EER016 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 8                | REVATHIL M          | E17EER044 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 9                | RANJAN              | E17EER042 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 10               | SUVEETHAM           | E17EER051 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 11               | RENI GAMA V         | E17EER043 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 12               | MUHAMMAD FAJ J      | E17EEL307 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 13               | VENKATESH K         | E17EER057 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 14               | SANTHOSH N          | E17EER046 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 15               | THIRUVEBAN M        | E17EER053 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 16               | CHANDRI S           | E17EER012 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 17               | AADHIL AHAMED S     | E17EEL301 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 18               | BHARATH S           | E17EER011 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 19               | VINITH K            | E17EEL317 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 20               | DHARSHAN R          | E17EEL302 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 21               | SUBHAR              | E17EEL313 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 22               | SATHIVANARAYANAN D  | E17EEL312 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 23               | HANN FARAZ H        | E17EER029 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |

| Attendance Sheet |                     |           |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
|------------------|---------------------|-----------|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|------------|----|
| S.NO.            | NAME OF THE STUDENT | ROLL NO.  | 08/07/2019 |    | 09/07/2019 |    | 10/07/2019 |    | 11/07/2019 |    | 12/07/2019 |    | 13/07/2019 |    | 14/07/2019 |    |
|                  |                     |           | IN         | AN | IN         | AN | IN         | AN | IN         | AN | IN         | AN | IN         | AN | IN         | AN |
| 24               | MUHAMMAD RIZWAN S   | E17EEL308 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 25               | ARMARAJA P          | E17EER052 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 26               | ISHINARAJ D         | E17EER026 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 27               | UNKUMAR R           | E17EER005 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 28               | VADEEPAN T          | E17EER023 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 29               | RISUNDAR M R        | E17EER019 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |
| 30               | ANKATRAMAN N        | E17EEL315 |            |    |            |    |            |    |            |    |            |    |            |    |            |    |

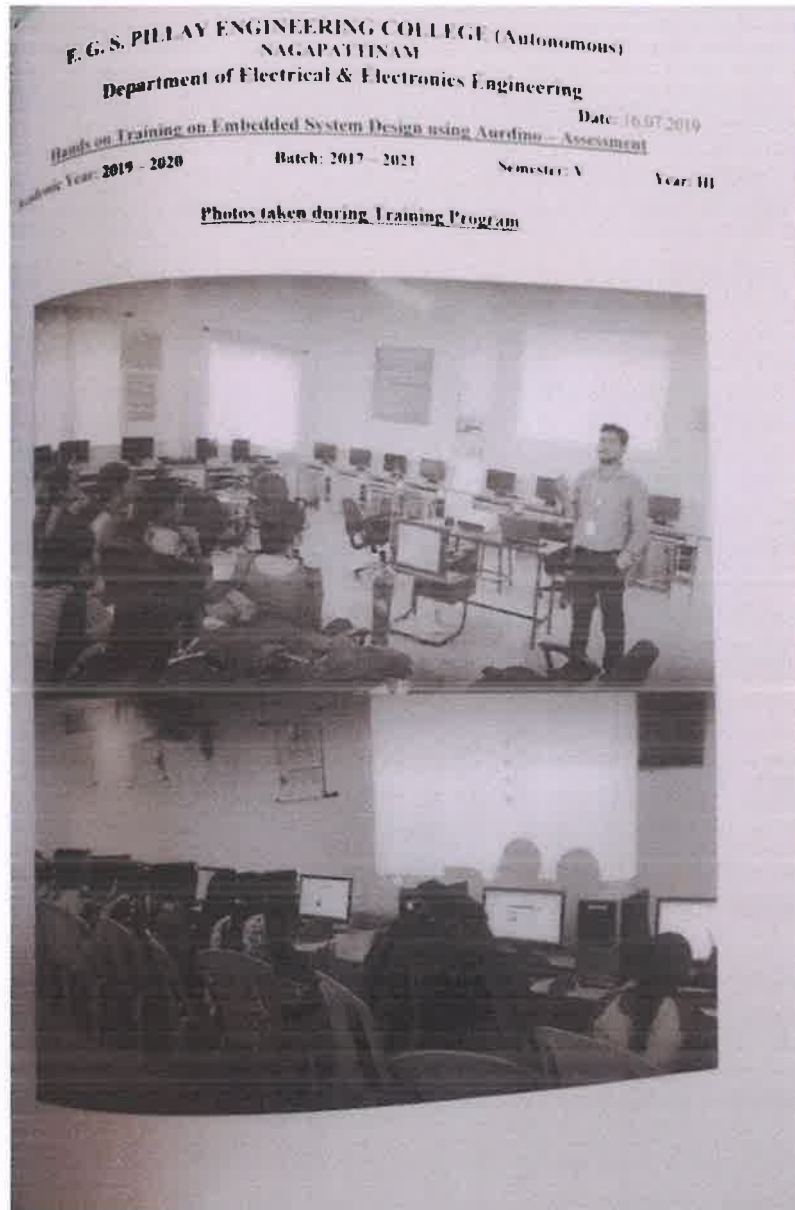
ATTESTED

Dr. S. RAMABALAN, M.E., Ph.D.,  
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Thethi, Nagore - 611 002.  
Nagapattinam (Dt) Tamil Nadu,



VALUE ADDED COURSE  
ON  
Embedded system design using Arduino  
Event photos



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Tirugopattinam, Tamil Nadu.

**E. G. S. PILLAY ENGINEERING COLLEGE (Autonomous)  
NAGAPATTINAM  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

Date: 16.07.2019

**A Report on Hands on Training Program on Embedded System Design Using Arduino  
For III Year EEE**

Value added course on recent technologies was planned to conduct for the third year students. After had much deliberations amongst the BoS Chairman/HoD and the director of consultancy services along with class coordinator, it was decided to conduct Hands on Training on Design of Embedded Systems Using Arduino.

The class coordinator of III year EEE suggested the dates for the training program as 8<sup>th</sup> July to 14<sup>th</sup> July 2019. He also appointed a course representative from the third year students.


The permission for the above mentioned program was received earlier by the director of consultancy services from the HoD and Secretary of EGSPEC.

Since the regulations of EGSPEC allow the students to do on value added courses on recent trends and employability, this course was opted which will provide more opportunities to get jobs in the field of embedded systems.

Students were actively engaged and participated in the training program. Arduino boards were given to the students in order to get practically trained. Every day activities were given to the students and the outputs shown by them showed their enthusiasm in acquiring new skills.

Based on the regulations of EGSPEC - R2017, three tests were conducted. First test was conducted on 10.07.2019 for 25 marks. Second test was conducted on 13.07.2019 and the final test was conducted for 50 marks on 16.07.2019. All these tests were conducted with MCQ type of questions. The answers of students were evaluated and calculated the total marks of this training program.

This report was prepared by G. Yuvraj / III EEE.

  
(COURSE COORDINATOR)

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E.G.S.Pillay Engineering College, (Autonomous) Nagapattinam

Dept of Electrical and Electronics Engineering

INTERNAL CIRCULAR

6-12-2019

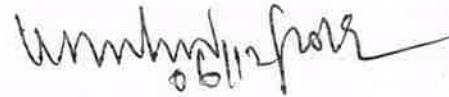
Value added course

It is informed to all Second year (2018-22) students that a five day value added course on "KiCAD," been organized between 9-12-2019 to 13-12-2019.

All the students of II year EEE are instructed to attend the course without fail.

Time: 9.15 am – 4.30 Pm

Venue: EEE Seminar hall




HOD/EEE

(Circulated to II year class)

**Dr. V. MOHAN M.E., Ph.D.,**  
**PROFESSOR & HEAD**  
Department of Electrical & Electronics Engg  
E.G.S. Pillay Engineering College - Nagapattinam

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**E.G.S. PILLAY**

**ENGINEERING COLLEGE**

**(AUTONOMOUS)**

Nagapattinam – 611 002

Affiliated to Anna University,

Chennai| Approved by AICTE, New

Delhi

ACCREDITED by NAAC With

GRADE 'A'

Department of Electrical and

Electronics Engineering

(Accredited by NBA)

**VALUE ADDED COURSE**

**ON**

**"KICAD"**

**Syllabus**

**Introduction to KICAD**

**Schematic Editing**

**PCB editing**

**Demonstrations**

**Course Overview**

**Resource Person**

**Mr.E.Arunkumar,**

**Vice President,**

**Retech Solutions Pvt Ltd, Chennai**

**Course Coordinator**

**Mr. S.Sivamani,AP/EEE**

**ATTESTED**



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# E.G.S.Pillay Engineering College, Nagapattinam

Dept of Electrical and Electronics Engineering

## VALUE ADDED COURSE

On

### **KICAD**

#### **About the Institution:**

Our college is offering value added courses for all the students intended to provide additional learner centric graded skill oriented technical training. The courses enhance the ability of students in their respective domains and progress in their respective field of studies.

#### **About the Department:**

Our department intends to provide additional technical knowledge and ensure the active participation of students to practice in the multidisciplinary tasks and core related areas.

#### **Course period:**

09.12.2019 to 13.12.2019

#### **Course instructor:**

Mr.E.Arunkumar,  
Vice President,  
Retech Solutions Pvt Ltd, Chennai

#### **Objectives**

Objectives of providing value added courses are to

- Gain knowledge from the subject experts
- Meet the expectations of industry
- Improve the employability skills of the students

#### **Courses Structure**

- ✓ Industry experts / eminent academicians from other Institutes/ Subject Experts from the respective departments teach the value added course
- ✓ The registration for the courses will be done at the beginning of academic year
- ✓ The duration of each course is 40 hours of Theory / Practical / Both

#### **Expected Outcomes**

Students will be able to  
Demonstrate their technical and communication skills  
Apply the novel technologies in their respective fields  
Face the challenges in the current industry scenario

#### **Evaluation & Result**

Evaluation of value added courses shall be carried out annually for 100 marks. Students will be given certificates with the grades based on the marks scored in the Examination.

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Nagapattinam (Dt) Tamil Nadu.

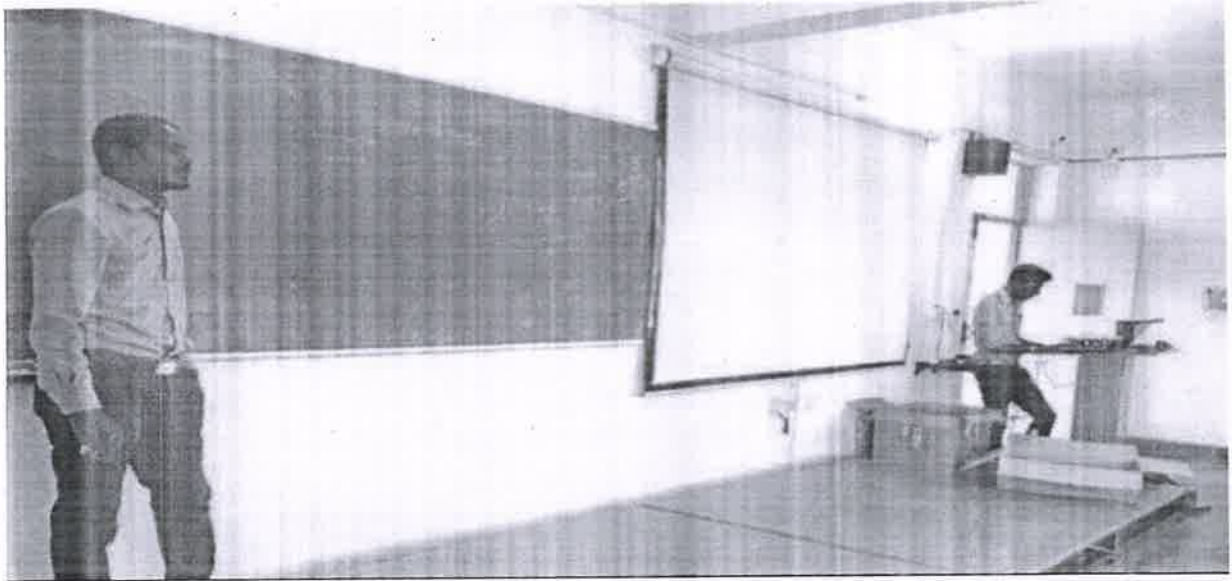
**E.G.S.Pillay Engineering College, Nagapattinam**

**Dept of Electrical and Electronics Engineering**

**VALUE ADDED COURSE**

On

**KICAD**



ATTESTED

**Dr. S. RAMABALAN M.E., Ph.D.**

Principal

E.G.S. Pillay Engineering College

Nagapattinam

E.G.S.Pillay Engineering college,(Autonomous )Nagapattinam  
 Department of Electrical and Electronics Engineering  
 ONE WEEK VALUE ADDED COURSE

On

**“KiCad”**

**Attendance details**

Batch : 2018-22

Academic year:2019-20

| S. No. | Reg. Number | Student Name        | 9/12 | 10/12 | 11/12 | 12/12 | 13/12 |
|--------|-------------|---------------------|------|-------|-------|-------|-------|
| 1.     | E18EER001   | AAKASH M            | /    | /     | /     | /     | /     |
| 2.     | E18EER002   | AKASH P             | "AB" | "AB"  | "AB"  | "AB"  | "AB"  |
| 3.     | E18EER003   | AKASHRAJ A          | /    | /     | /     | /     | /     |
| 4.     | E18EER004   | AMIRTHAVARSHINI P   | /    | /     | /     | /     | /     |
| 5.     | E18EER005   | ARUNKUMAR R         | /    | /     | /     | /     | /     |
| 6.     | E18EER006   | BALAGANESH.S        | /    | /     | /     | /     | /     |
| 7.     | E18EER007   | CHOZHAN M           | /    | /     | /     | /     | /     |
| 8.     | E18EER008   | DEEPAK T            | /    | /     | /     | /     | /     |
| 9.     | E18EER009   | DHARIK AHAMED S     | /    | /     | /     | /     | /     |
| 10.    | E18EER010   | DHEEPAK RAM R       | /    | /     | /     | /     | /     |
| 11.    | E18EER011   | IMRAN NAZIR N       | /    | /     | /     | /     | /     |
| 12.    | E18EER012   | ISHWARYA P          | /    | /     | /     | /     | /     |
| 13.    | E18EER013   | JAGATHEESH R        | /    | /     | /     | /     | /     |
| 14.    | E18EER014   | KALAIYARASAN A      | /    | /     | /     | /     | /     |
| 15.    | E18EER015   | KALIDOSS K          | /    | /     | /     | /     | /     |
| 16.    | E18EER016   | KAMALESH K          | /    | /     | /     | "AB"  | /     |
| 17.    | E18EER017   | KEERTHIVASAN B      | /    | /     | /     | /     | /     |
| 18.    | E18EER018   | KEVIN CHRISTOPHER A | /    | /     | /     | /     | /     |
| 19.    | E18EER019   | KIRUPAKARAN M       | /    | /     | /     | /     | /     |
| 20.    | E18EER020   | KIRUTHIGA S         | /    | /     | /     | /     | /     |
| 21.    | E18EER021   | KUMARAVEL M         | /    | /     | /     | /     | /     |
| 22.    | E18EER022   | MADESH B            | /    | /     | /     | /     | /     |
| 23.    | E18EER023   | MANIKANDAN G        | /    | /     | /     | /     | /     |
| 24.    | E18EER024   | MURUGESH KANNAN C   | /    | /     | /     | /     | /     |
| 25.    | E18EER025   | MUTHUDHINESH G      | /    | /     | /     | /     | /     |
| 26.    | E18EER026   | PREM P              | /    | /     | /     | /     | /     |
| 27.    | E18EER027   | PUYALARASAN R       | /    | /     | /     | /     | /     |

ATTESTED

  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**  
 E.G.S. Pillay Engineering College,  
 Thethi, Nagore - 611 002.  
 Nagapattinam (Dt) Tamil Nadu.





# E.G.S PILLAY ENGINEERING COLLEGE (AUTONOMOUS)



**NAGAPATTINAM - 611002**

Accredited by NAAC with 'A' Grade | Accredited by NBA (EEE, MECH, CSE)  
Approved by AICTE - New Delhi and Affiliated to Anna University - Chennai

**VALUE ADDED COURSE**

ON

**KICAD**

Organized by

**Department of Electrical & Electronics Engineering  
Certificate**

This is to certify that Mr. / Ms. / R. DEEPAK RAM

of II - EEE has attended five days value added course on "KiCAD"

from 9-12-2019 to 13-12-2019.

**ATTESTED**  
*[Signature]*  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**  
E.G.S. Pillay Engineering College,  
Thethi, Nagore - 611 002,  
Nagapattinam (Dt) Tanj.

*[Signature]*

**COURSE COORDINATOR**

*[Signature]*

**HEAD OF THE DEPARTMENT**



**E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)**  
**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**VALUE ADDED COURSE ON**

**KiCAD**

**FEEDBACK FORM**

DATE: 13/12/2019


Give your feedback in 1 to 5 scale 1. Very poor 2. Poor 3. Good 4. Very good 5. Excellent

- |   |                                    |                                    |                         |                         |                         |
|---|------------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|
| 1. How much the Course is useful for you? | <input type="radio"/> 5            | <input checked="" type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
| 2. Course Content                         | <input type="radio"/> 5            | <input checked="" type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
| 3. Interaction with students              | <input checked="" type="radio"/> 5 | <input type="radio"/> 4            | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
| 4. Content Delivery method                | <input type="radio"/> 5            | <input checked="" type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
| 5. Whether all your queries are answered  | <input checked="" type="radio"/> 5 | <input type="radio"/> 4            | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
| 6. How the difficult points are handled   | <input type="radio"/> 5            | <input checked="" type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |

Any other points ..... Learn more about software

.....  
.....

**ATTESTED**  
  
**Dr. S. RAMABALAN, M.E., Ph.D.,**  
**PRINCIPAL**  
E.G.S. Pillay Engineering College,  
Thethi, Nagore - 611 002.  
Nagapattinam (Dt) Tamil Nadu.

  
Signature of the student  
(M. Chozhan)



# E.G.S PILLAY ENGINEERING COLLEGE (AUTONOMOUS)



**NAGAPATTINAM - 611002**

Accredited by NMAC with A Grade | Approved by NHA (TIER II) CH, CSO  
Approved by AICTE - New Delhi and Affiliated to Anna University - Chennai

**VALUE ADDED COURSE**

ON

**KICAD**

Organized by

**Department of Electrical & Electronics Engineering  
Certificate**

**ATTESTED**

**Dr. S. RAMABALAN, M.E., Ph.D.,  
PRINCIPAL**

E.G.S. Pillay Engineering College,  
Thethi, Nagore - 611 002,  
Nagapattinam (Dt) Tamil Nadu.

This is to certify that Mr. / Ms. / R. DEEPAK RAM

of IT-EEE has attended five days value added course on "KICAD"  
from 9-12-2019 to 13-12-2019.

**COURSE COORDINATOR**

**HEAD OF THE DEPARTMENT**

**E.G.S. PILLAY  
ENGINEERING COLLEGE  
(AUTONOMOUS)**

Nagapattinam – 611 002

Affiliated to Anna University,  
Chennai| Approved by AICTE, New  
Delhi

ACCREDITED by NAAC With  
GRADE 'A'

Department of Electrical and  
Electronics Engineering  
(Accredited by NBA)

**VALUE ADDED COURSE  
ON  
“MODELLING OF SOLAR  
CELL FOR ELECTRIC  
VEHICLE APPLICATIONS”**

**Syllabus**

**Introduction to solar enabled electric vehicle**

**Development of basic design of electric vehicle**

**Photo voltaic panel –design & Implementation**

**Performance analysis –EV**

**Modern tools –Implementation**

**Course Overview**

**Resource Person**

**Dr.TSuresh padhmanabhan,Professor**

**Course Coordinator**

**Mr.K.Nandakumar,AP/EEE**

## ABOUT THE INSTITUTION



E. G. S. Pillay Engineering College (Autonomous) is one of the pioneering non-grant engineering Colleges in the State. It was established by the G. S. Pillay & Sons Educational & Charitable Trust, Nagapattinam in the year 1995 with the sanction of the Government of Tamil Nadu, approval of the All-India Council for Technical Education, New Delhi and affiliated to Anna University, Chennai. The college has accredited by NAAC with 'A' Grade and all the UG programmes are accredited by NBA. The College has earned the reputation of being one of the most preferred colleges by the students and parents all these years. Known for its excellent infrastructure and facilities for learning, the outstanding non-grant engineering college has registered impressive performance consistently. A gate-way to success, the college has now set on long-range planning to enlarge and enrich its programs and activities to empower the youth who aspire to become successful Engineers, Scientists and Managers. A gate-way to success, the college has now set on long-range planning to enlarge and enrich its programs and activities to empower the youth who aspire to become successful Engineers, Scientists and Managers.

### Vision

*Envisioned to transform our institution into a "Global Centre of Academic Excellence"*

### Mission

- ✓ *To provide world class education to the students and to bring out their inherent talents*
- ✓ *To establish state-of- the-art facilities and resources required to achieve excellence in teaching - learning and supplementary processes*
- ✓ *To recruit competent faculty and staff and to provide opportunity to upgrade their knowledge and skills*
- ✓ *To have regular interaction with the industries in the area of R&D and offer consultancy, training and testing services*
- ✓ *To establish centre of excellence in the emerging areas of research*
- ✓ *To offer continuing education and non-formal vocational education programmes that are beneficial to the society*

### Department Vision

The department is envisioned to produce globally competent electrical and electronics engineering

### Department Mission

- ✓ To impart the contemporary knowledge in the field of electrical and electronics engineering with high human values
- ✓ To offer state -of -the -art facilities for conducive learning and conducting research
- ✓ To train the students for professional career and higher education by imparting self-learning and interpersonal skills.

Date: 22-07-2019 to 26-07-2019

(Five Days)

Time: 9.30 am to 4.30 pm



E.G.S.Pillay Engineering college,(Autonomous) Nagapattinam

Department of Electrical and Electronics Engineering

18-07-2019

**Internal circular**

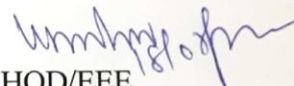
Value added course

All the post graduate III Semester students are informed to attend the value added course on "**MODELLING OF SOLAR CELL FOR ELECTRIC VEHICLE APPLICATIONS**" from **22-07-2019 to 26-07-2019**.

Venue: Simulation laboratory

Time: 09.30 am -04.30 pm

  
Course coordinator

  
HOD/EEE

(to be circulated to II year M.E class room)

E.G.S.Pillay Engineering college,(Autonomous) Nagapattinam

Department of Electrical and Electronics Engineering

List of the students registered for the

Value added course

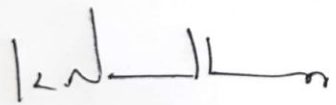
On

**“MODELLING OF SOLAR CELL FOR ELECTRIC VEHICLE APPLICATIONS”**

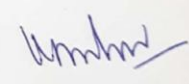
Date : 22-07-2019- 26-07-2019

Batch :2018-2020

| S.No | Name of the student | Register number |
|------|---------------------|-----------------|
| 1.   | JENIFER M           | E18PEF002       |
| 2.   | NATARAJAN S         | E18PEF003       |
| 3.   | RAJESWARI R         | E18PEF005       |
| 4.   | RAMESH M            | E18PEF006       |



Course coordinator



HOD/EEE

**EGSP**

Consultancy Services  
Training/Design/Consultancy

**EGSPCS**

Phone: 04365 251112  
Web : www.egspec.org  
Email : consultancy@egspec.org



Certificate

The Consultancy Services Division of E.G.S.Pillay Engineering College (Autonomous), Certifies that *Mr/Ms...RAHESH.M.....* has been awarded this certificate for the successful completion of Value added course on "MODELLING OF SOLAR CELL FOR ELECTRIC VEHICLE APPLICATIONS" from 22-07-2019 to 26-07-2019 organized by the Department of Electrical and Electronics Engineering, E.G.S.Pillay Engineering College.

Certificate No. EGSPCS/2019/EEE/TRG/01/006 Issue  
Date: 29/07

Dr.T.Sureshpadmanabhan  
Department co-ordinator

Dr.V. Mohan  
HOD/EEE


Prof.M.Vijayakumar  
Director Consultancy Services

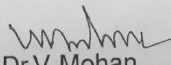



### Certificate

The Consultancy Services Division of E.G.S.Pillay Engineering College (Autonomous), Certifies that *Mr/Ms...RAJESHWARI..R.....* has been awarded this certificate for the successful completion of Value added course on "MODELLING OF SOLAR CELL FOR ELECTRIC VEHICLE APPLICATIONS" from 22-07-2019 to 26-07-2019 organized by the Department of Electrical and Electronics Engineering, E.G.S.Pillay Engineering College.

Certificate No: EGSPCS/2019/EEE/TRG/01/005. Issue  
Date: 29/07

  
Dr. T. Suresh Padmanabhan  
Department co-ordinator

  
Dr. V. Mohan  
HOD/EEE

  
Prof. M. Vijayakumar  
Director Consultancy Services



E.G.S.Pillay Engineering college,(Autonomous) Nagapattinam

Department of Electrical and Electronics Engineering

Value added course

On

**“MODELLING OF SOLAR CELL FOR ELECTRIC VEHICLE APPLICATIONS”**

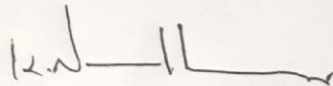
Date : 22-07-2019- 26-07-2019

Batch :2018-2020

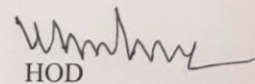
Academic year :2019-20

COURSE ATTENDENCE

| S.No | Name of the student | Register number | 22/7 | 23/7 | 24/7 | 25/7 | 26/7 |
|------|---------------------|-----------------|------|------|------|------|------|
| 1.   | JENIFER M           | E18PEF002       | Jeni | Jeni | Jeni | Jeni | Jeni |
| 2.   | NATARAJAN S         | E18PEF003       | S.N  | S.N  | S.N  | S.N  | S.N  |
| 3.   | RAJESWARI R         | E18PEF005       | R    | R    | R    | R    | R    |
| 4.   | RAMESH M            | E18PEF006       | R    | R    | R    | R    | R    |



Course coordinator



HOD

E.G.S. PILLAY ENGINEERING COLLEGE (AUTONOMOUS)  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING  
VALUE ADDED COURSE ON  
"MODELLING OF SOLAR CELL FOR ELECTRIC VEHICLE APPLICATIONS"  
FEEDBACK FORM

DATE: 26-07-2019

Give your feedback in 1 to 5 scale 1. Very poor 2. Poor 3. Good 4. Very good 5. Excellent

1. How much the Course is useful for you?

|                                    |                         |                         |                         |                         |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <input checked="" type="radio"/> 5 | <input type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|

2. Course Content

|                                    |                         |                         |                         |                         |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <input checked="" type="radio"/> 5 | <input type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|

3. Interaction with students

|                         |                                    |                         |                         |                         |
|-------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|
| <input type="radio"/> 5 | <input checked="" type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
|-------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|

4. Content Delivery method

|                                    |                         |                         |                         |                         |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <input checked="" type="radio"/> 5 | <input type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|

5. Whether all your queries are answered

|                         |                                    |                         |                         |                         |
|-------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|
| <input type="radio"/> 5 | <input checked="" type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
|-------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|

6. How the difficult points are handled

|                         |                                    |                         |                         |                         |
|-------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|
| <input type="radio"/> 5 | <input checked="" type="radio"/> 4 | <input type="radio"/> 3 | <input type="radio"/> 2 | <input type="radio"/> 1 |
|-------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|

Any other points

..... Able to Understand  
..... more Concept.  
.....

*Jenifer*  
Signature of the student