



RAAK

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
An ISO 9001:2015 Certified Institution

From

02/08/2021

Ms. V. Uvaranjani
Assistant Professor, ECE
RAAK College of Engineering and Technology
Puducherry -110

To

The Principal
RAAK College of Engineering and Technology
Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program / Value added Course on **“21ECE01-Smart Industrial Safety Solutions”**- reg.

This is to bring to your kind notice that the Skill Development Team is planning to conduct a Program on **“21ECE01- Smart Industrial Safety Solutions”** for all the Final Year ECE students from 09-08-2021 to 13-08-2021.

The main focus of this program is to provide a better exposure to our students on the Smart Industrial Safety Solutions

The syllabus and course plan structured are not listed in the Pondicherry University Curriculum and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,

Ms. V. Uvaranjani
AP/ECE



Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL

RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110



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RAAKCET/PRINCIPAL/CIR/AUG2021

03/08/2021

CIRCULAR

This is to inform that the Skill Development Team is planning to conduct a value added course on "21ECE01- Smart Industrial Safety Solutions" for all the Final Year ECE Department students from 09-08-2021 to 13-08-2021. Students are asked to utilize this opportunity and improve their skills

PRINCIPAL

Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

1. All HoDs
2. Office

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
PRESENTS
VALUE ADDED COURSE ON
SMART INDUSTRIAL SAFETY SOLUTIONS (ONLINE MODE)**

2021-2022

DATE: 09/08/2021 to 13/08/2021

VENUE: RAAKCET

TIME: 09 am to 04 pm

Resource Person:

**Mr. M. Kalaivanan
Assistant Professor,
Christ Institute of Engg & Tech.**

For Registration Contact:

**Mr. Joseph selvaraj, AP/ ECE.,
8876983876**

HOD

Mr. Ayyapasamy



PRINCIPAL

Dr. S. Seenuvasamurthi

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

RAAK College of Engineering & Technology

**No. 1, Mahipillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110**



raakengg@mail.com



www.raakengg.com



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VALUE ADDED COURSES

2021-2022

Department of Electronics and Communication Engineering

21ECE01- Smart Industrial Safety Solutions

Syllabus

Duration: 30 hours

Course Objective:

- Understand the fundamentals of industrial safety.
- Learn about smart technologies and their applications in enhancing safety.
- Analyze case studies of successful implementation of smart safety solutions.
- Develop skills to design and implement safety strategies using modern tools.

Course Outcome:

Upon successful completion of the course students able to

- Understanding of Industrial Safety Fundamentals
- Knowledge of Safety Regulations and Standards
- Gain the insights from the data through statistical inferences
- Design and Implementation of Safety Management Systems

Module 1: Introduction to Industrial Safety

Basics of Industrial Safety-Definition and importance of industrial safety-Historical overview and evolution of safety practices-Common hazards in industrial settings-Safety Regulations and Standards-OSHA (Occupational Safety and Health Administration) guidelines International safety standards (ISO, IEC) Industry-specific safety regulations

Module 2: Smart Technologies in Industrial Safety

Internet of Things (IoT) for Safety IoT fundamentals IoT sensors and devices for safety monitoring Data collection and analysis **Artificial Intelligence (AI) and Machine Learning (ML)** Basics of AI and ML AI applications in predictive maintenance and risk assessment Case studies of AI-driven safety solutions




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL

RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
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Module 3: Safety Management Systems

Designing Safety Management Systems Components of a safety management system Risk assessment and hazard aIncident reporting and investigation Implementing Safety Management Systems Steps for implementation Monitoring and continuous improvement Employee training and engagement

Module 4: Smart Personal Protective Equipment (PPE)

Innovations in PPE Types of PPE and their applications Smart PPE: features and benefits Integration of PPE with other safety systems Wearable Technology for Safety Wearable sensors and devices Real-time monitoring and alerts Case studies on the use of wearables in industrial safety

Module 5: Safety Analytics and Reporting

Data Analytics for Safety Importance of data in safety management Tools and techniques for safety data analysis Predictive analytics and trend analysis Safety Reporting and Dashboards Effective safety reporting techniques Designing safety dashboards Visualizing safety data for decision-making

Course Designed By

Approved By

Principal



Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
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CO - ATTAINMENT MAPPING

Sl. No	Register Number	Student Name	CO1	CO2	CO3	CO4
1	18TC1201	ABITHA V	✓	✓	✓	✓
2	18TC1202	AGALYA B	✓	✓	✓	✓
3	18TC1203	ANITHA N	✓	✓	✓	✓
4	18TC1204	FOUSIA BEGAM Y	✓	✓	✓	✓
5	18TC1205	JOTHILAKSHMI A	✓	✓	✓	✓
6	18TC1206	KAMARUNISHA H	✓	✓	✓	✓
7	18TC1207	KAVITHA U	✓	✓	✓	✓
8	18TC1208	MATHIYARASI S	✓	✓	✓	✓
9	18TC1209	NASIRA BANU M	✓	✓	✓	✓
10	18TC1210	PAVITHRA S	✓	✓	✓	✓
11	18TC1211	PRIYADARSINI D	✓	✓	✓	✓
12	18TC1212	RAJALAKSHMI M	✓	✓	✓	✓
13	18TC1213	RAJESWARI P	✓	✓	✓	✓
14	18TC1214	SANGARI A	✓	✓	✓	✓
15	18TC1215	SANGEETHA K	✓	✓	✓	✓



Dr. S. SEENUVASAMURTHI, M.E., Ph.C.

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VALUE ADDED COURSES

2021-2022

Department of Electronics and Communication Engineering

21ECE01- Smart Industrial Safety Solutions

COURSE PLAN

S.no	Date	Hours	Time	Topic	Faculty details
DAY -1					
1	09.08.21	1,2	9 AM -11 AM	Definition and importance of industrial safety Historical overview and evolution of safety practices. Common hazards in industrial settings	Mr.S.Prakash & Mr.M.Kalaivanan
2		3,4	11.15 AM – 1.15 PM	OSHA (Occupational Safety and Health Administration) guidelines international safety standards (ISO, IEC) Industry-specific safety regulations	Mr.S.Prakash
3		5,6	2 PM -4 PM	IoT fundamentals, IoT sensors and devices for safety monitoring, Data collection and analysis.	Mr.M.Kalaivanan
DAY 2					
4	10.08.21	7,8	9 AM -11 AM	Basics of AI and ML, AI applications in predictive maintenance and risk assessment, Case studies of AI-driven safety solutions	Mr.S.Prakash
5		9,10	11.15 AM – 1.15 PM	Components of a safety management system, Risk assessment and hazard identification, Incident reporting and investigation	Mr.M.Kalaivanan
6		11,12	2 PM -4 PM	Steps for implementation, Monitoring and	Mr.S.Prakash



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				continuous improvement Employee training and engagement	
DAY -3					
7	11.08.21	13,14	9 AM -11 AM	Types of PPE and their applications. Smart PPE: features and benefits	Mr.M.Kalaiivanan
8		15,16	11.15 AM – 1.15 PM	Integration of PPE with other safety systems	Mr.S.Prakash
9		17,18	2 PM -4PM	Wearable sensors and devices Real-time monitoring and alerts	Mr.M.Kalaiivanan
DAY -4					
10	12.08.21	19,20	9 AM -11 AM	Case studies on the use of wearables in industrial safety	
11		21,22	11.15 AM – 1.15 PM	Data Analytics for Safety	Mr.S.Prakash
12		23,24	2 PM -4 PM	Importance of data in safety management	Mr.M.Kalaiivanan
DAY -5					
13	13.08.21	25,26	9 AM -11AM	Tools and techniques for safety data analysis, Predictive analytics and trend analysis	
14		27,28	11.15AM – 1.15 PM	Effective safety reporting techniques Designing safety dashboards	Mr.S.Prakash
15		29,30	2 PM -4 PM	Visualizing safety data for decision-making	Mr.M.Kalaiivanan

ASSESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION *

BREAK TIME: 11.00 TO 11.15 AM

LUNCH BREAK: 1.15 PM TO 2.00 PM

COURSE DESIGNED BY
Ms. V. Uvaranjanani




APPROVED BY
SKILL DEVELOPMENT TEAM

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL

Dr.S.SEENUVASAMURTHI
PRINCIPAL





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VALUE ADDED COURSE

2021-2022

Department of Electronics and Communication Engineering

EVENT REPORT

Name of the Course 21ECE01-Smart Industrial Safety Solutions(Online Mode)

Name of the Instructor: Mr.S.Prakash & Mr.M.Kalaivanan

Year/ Branch: IV/ECE

Duration of Course: 30 Hours (09-08-2021 to 13-08-2021)

Assessment Date: 20.08.2021

Post Event Summary:

The course was inaugurated on 09-08-2021 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks.

On 20.08.2021 assessment was conducted and feedbacks were collected from all the participants.

CO - Attainment:


CO1: Ability to gain basic knowledge on data science

CO2: Convert the real time data into suitable form for analysis

CO3: Gain the insights from the data through statistical inferences

CO3: Develop suitable models using machine learning techniques and to analyze its performance




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PRINCIPAL
RAAK College of Engineering & Technology
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Value Added Course On Smart Industrial Safety Solutions 2021-22

	Sowmya Jayabal		
	Sugu Adithya		
	Sunitha Mary		
	Suresh Suresh		
	Suvasi Sivaraman		
	Swetha Thangapandi...		
	Syed Vahith		
	Thamizh arasan		
	Theena Veerappan		
	Vijay Vijay		
	Vijay willson		
	vinothini vino		
	Yashini Yashini		
	Yogesh Yogesh		

Components of a safety management system, Risk assessment and hazard a Incident reporting and investigation on 10.08.21




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL

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From

02/08/2021

Mr.S.DINESH
Assistant Professor/ECE
RAAK College of Engineering and Technology
Puducherry -110

To

The Principal
RAAK College of Engineering and Technology
Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program / Value added Course on
"21IT02- MATLAB Programming"- reg.

This is to bring to your kind notice that the Skill Development Team is planning to conduct a Program on "21IT02- Matlab Programming" for all the Third Year ECE students from 09-08-2021 to 13-08-2021.

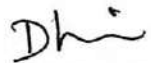
The main focus of this program is to provide a better exposure to our students on the MAT LAB Programming.

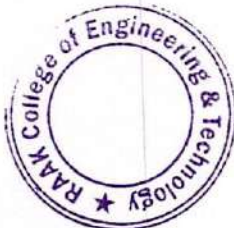
The syllabus and course plan structured are not listed in the Pondicherry University Curriculum. and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,


Mr.S.Dinesh
AP/ECE




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PRINCIPAL
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RAAKCET/PRINCIPAL/CIR/AUG2021

03/08/2021

CIRCULAR

This is to inform that the Skill Development Team is planning to conduct a value added course on "21ECE02- MATLAB Programming" for all the Third Year ECE Department students from 09-08-2021 to 13-08-2021. Students are asked to utilize this opportunity and improve their skills.

PRINCIPAL

Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
PRESENTS**

**VALUE ADDED COURSE ON
MATLAB PROGRAMMING (ONLINE MODE)**

2021-2022

DATE: 09/08/2021 to 13/08/2021

VENUE: RAAK CET

TIME: 09 am to 04 pm

Resource Person:

**Mrs. S. Senthazhai
Assistant Professor,
Krishnaswamy College of Engg & Tech.**

For Registration Contact:

**Mrs. S. Sultana Farveen, AP/ ECE.,
7845621989.**

HOD

Mr. Ayyapasamy



PRINCIPAL

Dr. S. Seenuvasamurthi

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

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No.1 Anthupillai Palayam Road,
Sulthanpet, Pondicherry - 605 110**



raakengg@mail.com



www.raakengg.com

Puducherry - 605 110



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VALUE ADDED COURSES

2021-2022

Department of Electronics and Communication Engineering

21ECE02- MATLAB Programming

Syllabus

Duration: 30 hours

Course Objective:

- To know about fundamentals of MATLAB tool.
- To provide an overview to program curve fitting & solve Linear and Nonlinear Equations.
- To understand the concept and importance of Fourier transforms.
- To gain knowledge about MATLAB Simulink & solve engineering problems.

Course Outcome:

Upon successful completion of the course students able to

- Outline the basic concepts of MATLAB.
- Develop programs for scientific and mathematical problems.
- Analyze an engineering system/Problem through graphical representation and numerical analysis.
- Build optimized code for various applications in Engineering and Technology

Module 1:

(9 Hours)

Starting MATLAB, Working in command window, Arithmetic operations, Display formats, Elementary Math Built-in functions, Defining scalar variables, useful commands for managing variables, Script files.

Module 2:

(9 Hours)

Adding elements to existing variables, Deleting elements, Built in functions for handling arrays, Strings and strings as variables, Addition and Subtraction, Array Multiplication and Division, Element-by-Element operations, using arrays in MATLAB built-in math functions, Built in functions for analysing arrays, Generation of Random Numbers.

Module 3

(9 Hours)

plot, fplot commands, Formatting a plot, plots with logarithmic axes, error bars, special graphics, Histograms, Polar plots, putting multiple plots on the same page, Multiple figure windows, Examples, Line plots, Mesh and surface plots, plots with special graphics.




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PRINCIPAL

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Module 4:

(9 Hours)

Relational and Logical operators, conditional statements, The switch-case statement, Loops, Nested Loops and Nested conditional statements, The break and continue commands, creating a function file, structure of a function file, Local and Global variables.

Module 5:

(9 Hours)

Polynomials, curve fitting, Interpolation, The Basic fitting interface, Examples, solving equation of one variable, Finding minimum or maximum of a function, Numerical integration, ordinary differential equations.

Dhi

Course Designed By

[Signature]

Approved By

[Signature]
Principal



[Signature]
Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL

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CO - ATTAINMENT MAPPING

Sl. No	Register Number	Student Name	CO1	CO2	CO3	CO4
1	19TC1101	ABIRAMI S	✓	✓	✓	✓
2	19TC1102	BENINAL G	✓	✓	✓	✓
3	19TC1103	DINESH KUMAR V	✓	✓	✓	✓
4	19TC1104	GAUTHAM S	✓	✓	✓	✓
5	19TC1105	GOVINDARAJ K	✓	✓	✓	✓
6	19TC1106	I.KARTHESWARAN	✓	✓	✓	✓
7	19TC1107	I.MUTHURAMAN	✓	✓	✓	✓
8	19TC1108	KALAIVANAN M	✓	✓	✓	✓
9	19TC1109	KISHORE RAJAN N	✓	✓	✓	✓
10	19TC1110	NARAYANAN B	✓	✓	✓	✓
11	19TC1112	RAJALAKSHMI S	✓	✓	✓	✓
12	19TC1113	RESMINA FARVIN M	✓	✓	✓	✓
13	19TC1114	S.JEEVANANDAM	✓	✓	✓	✓
14	19TC1115	SATHISH N	✓	✓	✓	✓
15	19TC1116	SOORIYA D	✓	✓	✓	✓
16	19TC1117	SUGANYA M	✓	✓	✓	✓
17	19TC1118	YOGAA SUPARNA K P	✓	✓	✓	✓



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VALUE ADDED COURSES 2021-2022

Department of Electronics and Communication Engineering

21ECE02- MATLAB Programming COURSE PLAN

S.no	Date	Hours	Time	Topic	Faculty details
DAY -1					
1	09.08.21	1.2	9AM -11AM	Starting MATLAB, Working in command window, Arithmetic operations,	Mrs.S.Senthazhai & Mr.S.Prakash
2		3,4	11.15AM – 1.15 PM	Display formats, Elementary Math Built-in functions,	Mrs.S.Senthazhai
3		5.6	2 PM -4PM	Defining scalar variables, managing variables, Script files. Adding elements to existing variables, Deleting elements,	Mr.S.Prakash
DAY 2					
4	10.08.21	7,8	9AM -11AM	Built in functions for handling arrays, Strings and strings as variables, Addition and Subtraction,	Mrs.S.Senthazhai
5		9,10,	11.15AM – 1.15 PM	Array Multiplication Division, Element-by-Element operations, using arrays in MATLAB built-in math functions	Mr.S.Prakash
6		11,12	2 PM -4PM	Built in functions for analysing arrays, Generation of Random Numbers	Mrs.S.Senthazhai
DAY -3					
7	11.08.21	13,14	9AM -11AM	plot, fplot commands, Formatting a plot, plots with logarithmic axes, error bars	Mr.S.Prakash
8		15,16	11.15AM – 1.15 PM	special graphics, Histograms, Polar plots, putting multiple plots on the same page	Mrs.S.Senthazhai



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9		17,18	2 PM -4PM	Multiple figure windows, Examples, Line plots, Mesh and surface plots, plots with special graphics	Mr.S.Prakash
DAY -4					
10	12.08.21	19,20	9AM -11AM	Relational and Logical operators, conditional statements, The switch-case statement, Loops,	Mrs.S.Senthazhai
11		21,22	11.15AM – 1.15 PM	Nested Loops and Nested conditional statements, The break and continue commands,	Mr.S.Prakash
12		23,24	2 PM -4PM	Creating a function file, structure of a function file, Local and Global variables.	Mrs.S.Senthazhai
DAY -5					
13	13.08.21	25,26	9AM -11AM	Polynomials, curve fitting, Interpolation, The Basic fitting interface, Examples,	Mr.S.Prakash
14		27,28	11.15AM – 1.15 PM	Solving equation of one variable, Finding minimum or maximum of a function, Numerical integration, and ordinary differential equations.	Mrs.S.Senthazhai
15		29,30	2 PM -4PM	Maximum of a function, Numerical integration, ordinary differential equations.	Mr.S.Prakash
ASSESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION *					

BREAK TIME: 11.00 TO 11.15 AM

LUNCH BREAK: 1.15 PM TO 2.00 PM

COURSE DESIGNED BY

Mr.S.DINESH



APPROVED BY

SKILL DEVELOPMENT TEAM

PRINCIPAL

Dr.S.SEENUVASAMURTHI

Dr. S. SEENUVASAMURTHI, M.E., Ph.C.

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**VALUE ADDED COURSE
2021-2022**

**Department of Electronics and Communication Engineering
EVENT REPORT**

Name of the Course: 21ECE02- MAT LAB Programming(Online Mode)

Name of the Instructors: Mrs.S.Senthazhai & Mr.S.Prakash

Year/ Branch: III/ECE

Duration of Course: 30 Hours (09-08-2021 to 13-08-2021)

Assessment Date: 20.08.2021

Post Event Summary:

The course was inaugurated on 09-08-2021 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks.

On 20.08.2021 assessment was conducted and feedbacks were collected from all the participants.

CO - Attainment:


CO1: Outline the basic concepts of MATLAB.

CO2: Develop programs for scientific and mathematical problems.

CO3: Analyze an engineering system/Problem through graphical representation and numerical analysis.

CO4: Build optimized code for various applications in Engineering and Technology.




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110

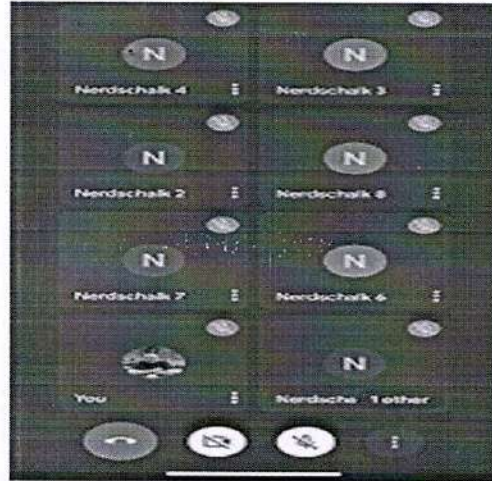


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Value Added Course on MATLAB Programming 2021-22



Nested Loops and Nested conditional statements on 12.08.21



A handwritten signature in green ink, appearing to read 'S. Seenuvasamurthi'.

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From

02/08/2021

Ms. R. AARTHI
Assistant Professor, ECE
RAAK College of Engineering and Technology
Puducherry -110

To

The Principal
RAAK College of Engineering and Technology
Puducherry -110

Respected Sir,

Sub: Requisition for Approval to Conduct Skill Development program / Value added Course on **"21ECE03 – Arduino Programming"** — reg.

This is to bring to your kind notice that **"21ECE03 – Arduino Programming"** for all the Second Year ECE students from 09-08-2021 to 13-08-2021.the Skill Development Team is planning to conduct a Program on

The main focus of this program is to provide a better exposure to our students on the Arduino Programming.

The syllabus and course plan structured are not listed in the Pondicherry University Curriculum and the same have been verified and approved by the Principal/HoD/Professors and Skill development team.

Hence, I kindly request you to approve event planned. The details and the necessary proofs are attached with this letter.

Thanking you,

Yours faithfully,

R. AARTHI

AP/ECE



Dr. S. SEENUVASAMURTHI, M.E., Ph.C.
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RAAKCET/PRINCIPAL/CIR/AUG2021

03/08/2021

CIRCULAR

This is to inform that the Skill Development Team is planning to conduct a value added course “**21ECE03 – Arduino Programming**” for all the Second Year ECE Department students from 09-08-2021 to 13-08-2021. Students are asked to utilize this opportunity and improve their skills.

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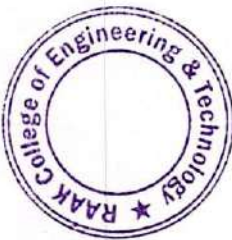
Circulation to:

1. All Students
2. All Faculty & Staff Members
3. All HoDs

Copy to:

1. All HoDs
2. Office

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RAAK College of Engineering & Technology
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING PRESENTS

VALUE ADDED COURSE ON ARDUINO PROGRAMMING (ONLINE MODE)

2021-2022

DATE: 09/08/2021 to 13/08/2021

VENUE: RAAKCET

TIME: 09 am to 04 pm

Resource Person:

Mr. K. Sabarinathan

Assistant Professor,

Acharya College of Engg & Tech.

For Registration Contact:

Mrs. K. Dhanalakshmi , AP/ ECE.,

7170826798.

HOD

Mr. Ayyapasamy



PRINCIPAL

Dr. S. Seenuvasamurthi

Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL

RAAK College of Engineering & Technology
No.1, Mythupillai Palayam Road,

Wavel Post
Puducherry - 605 110



raakengg@mail.com





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VALUE ADDED COURSES

2021-2022

Department of Information Technology
21ECE03 – ARDUINO PROGRAMMING
Syllabus

Duration: 30 hours

Course Objective:

- To program Arduino to control lights, motors, and other devices.
- To learn Arduino's architecture, including inputs and connectors for add-on devices.
- To add third-party components such as LCDs, accelerometers, gyroscopes, and GPS trackers to extend Arduino's functionality.
- To understand various options in programming languages, from C to drag-and-drop languages

Course Outcome:

Upon successful completion of the course students able to

Recall the basics of sensors, its functioning.

Execute basic and advanced assembly language programs.

Learn the ways to interface I/O devices with processor for task sharing.

Recall the basics of co-processor and its ways to handle float values by its instruction set.

Module 1: Introduction to Sensors

(9 Hours)


Transducers, Classification, Roles of sensors in IOT, Various types of sensors, Design of sensors, sensor architecture, special requirements for IOT sensors, Role of actuators, types of actuators.

Module 2: Hardware

(9 Hours)

Physical device – Arduino Interfaces, Hardware requirement for Arduino, Connecting remotely over the network using VNC, GPIO Basics, Controlling GPIO Outputs Using a Web Interface, – Programming, APIs / Packages- Quark SOC processor, programming, Arduino Boards using GPIO.




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CO - ATTAINMENT MAPPING

Sl. No	Register Number	Student Name	CO1	CO2	CO3	CO4
1	20TC0501	AKASH M	✓	✓	✓	✓
2	20TC0502	AKASH M	✓	✓	✓	✓
3	20TC0503	ANKANI LEELA SAI VARMA	✓	✓	✓	✓
4	20TC0504	AYISHA BEEVI H	✓	✓	✓	✓
5	20TC0505	BALAJI S	✓	✓	✓	✓
6	20TC0506	BHARATHI K	✓	✓	✓	✓
7	20TC0507	FARIDH KHAN J	✓	✓	✓	✓
8	20TC0508	PRAVIN R	✓	✓	✓	✓
9	20TC0509	PURUSHOTHAMAN D	✓	✓	✓	✓
10	20TC0510	RAJESWARI R	✓	✓	✓	✓
11	20TC0512	SATHEESH KUMAR A	✓	✓	✓	✓
12	20TC0513	SHARMILA S	✓	✓	✓	✓
13	20TC0514	SRI HARI B	✓	✓	✓	✓
14	20TC0515	SWATHI S	✓	✓	✓	✓
15	20TC0516	THAYUMANAVAR S	✓	✓	✓	✓



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VALUE ADDED COURSES 2021-2022

Department of Electronics and Communication Engineering

21ECE03 – ARDUINO PROGRAMMING

COURSE PLAN

S.no	Date	Hours	Time	Topic	Faculty details
DAY-1					
1	09.08.21	1.2	9AM -11AM	Transducers, Classification, Roles of sensors in IOT	Mrs.S.Krthiga & Mrs.S.Senthazhai
2		3,4	11.15AM – 1.15 PM	Various types of sensors, Design of sensors, sensor architecture	Mrs.S.Senthazhai
3		5.6	2 PM -4PM	special requirements for IOT sensors, Role of actuators, types of actuators.	Mrs.S.Krthiga
DAY-2					
4	10.08.21	7,8	9AM -11AM	Arduino Interfaces, Hardware requirement for Arduino, Connecting remotely over the network using VNC, GPIO Basics	Mrs.S.Senthazhai
5		9,10,	11.15AM – 1.15 PM	Controlling GPIO Outputs Using a Web Interface.Programming, APIs / Packages- Quark SOC processor ,programming, Arduino Boards using GPIO	Mrs.S.Krthiga
6		11,12	2 PM -4PM	Creative Coding Platforms - Open Source Platforms – PIC - Arduino, Sketch,	Mrs.S.Senthazhai
7	11.08.21	13,14	9AM -11AM	LED, LCD, Keypad, Motor control and sensor	Mrs.S.Krthiga
8		15,16	11.15AM – 1.15 PM	Python Programming - Mobile phones and similar devices - Arm Devices -	Mrs.S.Senthazhai
9		17,18	2 PM -4PM	Preparing the	Mrs.S.Krthiga



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				development environment. Basic Electronics .Sensors and Software: Understanding Processing Code Structure	
DAY -4					
10	12.08.21	19,20	9AM -11AM	Exploring the Arduino language (C/C++) syntax, Coding, compiling, and uploading to the microcontroller	Mrs.S.Senthazhai
11		21,22	11.15AM – 1.15 PM	Arduino Communication Modules: Bluetooth Modules, LED Blinking, Controlling a Servomotor	Mrs.S.Krthiga
12		23,24	2 PM -4PM	ESP8266 WiFi Serial Module	Mrs.S.Senthazhai
DAY -5					
13	13.08.21	25,26	9AM -11AM	Setting Up the Hardware, Interfacing with Arduino, Creating an IoT Temperature and Humidity Sensor System	Mrs.S.Krthiga
14		27,28	11.15AM – 1.15 PM	DHT-22 Sensor, Interfacing the Hardware: Arduino, ESP8266 WiFi Module, and DHT-22 Sensor.	Mrs.S.Senthazhai



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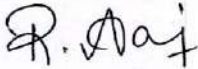
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15		29,30	2 PM -4PM	Your Data via Thing Speak, Connecting Your Arduino Set-up to Blynk via WiFi	Mrs.S.Krthiga
ASSESSMENT EXAM WILL BE CONDUCTED AFTER ONE WEEK OF COURSE COMPLETION *					

BREAK TIME: 11.00 TO 11.15 AM


LUNCH BREAK: 1.15 PM TO 2.00 PM


COURSE DESIGNED BY

Mrs. R. AARTHI


APPROVED BY

SKILL DEVELOPMENT TEAM


PRINCIPAL

Dr.S.SEENUVASAMURTHI




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**VALUE ADDED COURSE
2021-2022**

**Department Of Electronics and Communication Engineering
EVENT REPORT**

Name of the Course: 21ECE03 – ARDUNIO PROGRAMMING(Online Mode)

Name of the Instructors: Mrs.S.Krthiga & Mrs.S.Senthazhai

Year/ Branch: II/ECE

Duration of Course: 30 Hours (09-08-2021 to 13-08-2021)

Assessment Date: 20.08.2021

Post Event Summary:

The course was inaugurated on 09-08-2021 at 9.30 A.M. by our respectable principal and sessions were continued as per the schedule. Students were enriched their knowledge by attending the course. Finally, the course concluded by vote of thanks. On 20.08.2021 assessment was conducted and feedbacks were collected from all the participants.

CO - Attainment:

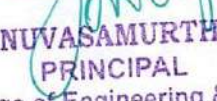
CO1: Recall the basics of sensors, its functioning.

CO2: Execute basic and advanced assembly language programs.

CO3: Learn the ways to interface I/O devices with processor for task sharing.

CO4: Recall the basics of co-processor and its ways to handle float values by its instruction set.




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Value Added Course On Arduino Programming 2021-22



Exploring the Arduino language (C/C++) syntax on 12.08.21



Dr. S. SREENIVASAMURTHI, M.E., Ph.D.
PRINCIPAL

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